AECOM Environment

Prepared for:
Shelton Economic Development Corp.
Shelton, Connecticut

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Rocky Hill, CT
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October 2016

Remedial Action Plan

Former Chromium Process Site – Land Parcel
113A East Canal Street
Shelton, Connecticut

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1.0 Introduction

AECOM has been retained by the Shelton Economic Development Corporation (SEDC) to prepare this Remedial Action Plan (RAP) for the remediation of the former Chromium Process Storage Property (the site) located at 113A East Canal Street, Shelton, Connecticut (Figure 1). The remediation effort will be completed in accordance with the Connecticut Remediation Standard Regulations (CT RSR, 2013).

The purpose of the remediation is to prepare the property for future use as a private commercial property and/or public access. Accessible contaminated soils, as defined by assessment, will be excavated, disposed off-site and replaced by clean backfill so that surficial soils (upper 4 feet) do not present contact hazards for future construction and landscaping work and for other future site users.

The work to be completed under this RAP will include the following:

- Excavation of up to 4 feet of contaminated soil from the eastern portion of the site
- Removal of existing soil mound from the former UST area in western part of the site
- Backfill of excavated areas and a concrete paved area with clean soil

The project is currently being funded by the EPA brownfields program (cleanup grant) awarded to the City, along with City funds as part of a cost share agreement.

This site is registered in the Voluntary Remediation Program (133x) with the Connecticut Department of Energy and Environmental Protection (DEEP).

1.1 Remediation Objectives

In this document, the “property” refers to the entire area known as the former Chromium Process land parcel, listed in the Shelton Assessors’ records as Map 130, parcel 4. The site is the remediation work area, which is the southeastern portion of the property, as shown on Figure 2.

The objectives of the remedial action will be to remove soils in which concentrations of contaminants of concern have been detected exceeding residential Direct Exposure Criteria (DEC) within 4 feet of the surface. Accessible soils in this condition have been detected by a previous investigation in the eastern portion of the site. In the western portion of the site, soil samples with detected concentrations of contaminants exceeding the residential and industrial/commercial DEC were collected within 4 feet of the surface, but that surface is covered with a concrete slab or pavement; thus, the soils in that location can be considered physically inaccessible.

The plan to achieve the remedial action objective includes:

- Removal and off-site disposal of up to 4 feet of contaminated soil from the eastern portion of the site;
- Removal and off-site disposal of former UST area soils from the western portion of the site;
- Excavation of soil up to depth of 4 feet behind the concrete foundation wall along the south side of the brook channel;

- Application of clean backfill soil to the excavated areas to a depth of 4 feet to provide the necessary separation to render the remaining soils inaccessible for the purposes of filing an Environmental Land Use Restriction (ELUR) for the property;
- Application of 4 feet of clean backfill soil on top of the existing concrete slab; and
- Restoration of the backfilled area with topsoil and grass seed.

Concentrations of contaminants detected in groundwater samples collected to date on the site have been below the applicable (SWPC) criteria. Hence, there are no remedial actions necessary at this time for site groundwater.

1.2 Site Setting and History

The property covers approximately 0.3 acre, and is located at 113A East Canal Street, Shelton, Fairfield County, Connecticut (Figure 1). The property is situated in the Shelton Enterprise and Commerce Park (SECP), a downtown industrial and redevelopment area in Shelton, Connecticut. It is bounded by railroad tracks to the north, the former Samarius property to the northwest, Canal Street to the southwest, and the former Axton Cross property to the southeast.

The property occupies a small area (approximately 2400 square feet (sf) on the north side of Burying Ground Brook, a small tributary to the Housatonic River that flows through the property. The remainder of the property lies along the south side of the brook channel. The western part of the property is sloped steeply up towards Canal Street, and is covered with scrub vegetation. The central part is flat, level and paved with a concrete slab. There is a concrete wall approximately 4 feet high along most of the north edge of the slab, leaving a narrow sliver of land between it and the brook channel wall. The eastern portion of the property slopes up gently towards the railroad tracks. A partly-buried fuel tank formerly occupied an area near the west end of the concrete slab, and some of the soil that partly covered it remains there.

Based on historical documentation, the property was developed as a manufacturing facility around 1910 as part of industrial growth initiated in the late 1800s. Manufacturing operations on the property included metal goods (brass and silver), cloth, and textiles. Additionally, the property was operated as part of a chemical company, a printing facility, and after 1924 as a warehouse/storage facility. In 1948 the building became part of the Chromium Process Company (operating in the building across Canal Street) and was used as storage for their metal plating operations. The property has been unoccupied since demolition of the on-site buildings in the 1980s.

Groundwater underlying the property and its vicinity is rated as GB, according to the CT DEEP Water Quality Classifications Map (CT DEEP, August 2014). GB applies to groundwater that is presumed to have been degraded by past urban or industrial activities and may not be suitable for human consumption without treatment.

1.3 Surrounding Properties

Properties in the vicinity are mostly vacant former industrial sites. The Housatonic Railroad right-of-way to the south is still considered active, but has not been used recently. Across Canal Street to the southwest is the building formerly occupied by the Chromium Process Company, which originally operated metal plating processes, but in the early 2000s was reportedly mostly storage and shipping. The parcel to the northwest was most recently occupied by Samarius Industries, which manufactured Tiffany-style lamps and other electrical components. The building was abandoned in 1985 and demolished in 2000. The abutting parcel to the southeast was most recently occupied by lumber and landscaping companies, but was previously occupied by a variety of manufacturing companies,

including chemical, bolt and tack, paper goods and clothing manufacturing. This parcel is currently undergoing remediation for contaminants in groundwater.

1.4 Geology and Hydrogeology

The property lies within the lower Housatonic River basin. The inferred groundwater flow at the property is towards the river, or towards Burying Ground Brook. Groundwater has been detected at depths ranging from approximately 12 ft to 15 ft below grade (Nobis, 2012).

The regional geology consists of glaciofluvial sediments overlying bedrock, which is described as the Pumpkin Ground member of the Harrison Gneiss, a gray to spotted, coarse- to medium-grained, foliated gneiss (Rodgers, 1985). Previous investigations on the site found hard material assumed to be bedrock at depths of 25 to 27 feet below ground surface at the site. The bedrock surface appeared to dip downward towards the river. Local overburden deposits have been identified as fine-to-medium sands underlain by till. Shallow soils in the area east of Canal Street and west of the Housatonic River are characterized as artificial fill.

Most of the property lies within the boundaries of the Housatonic River 100-year flood plain, according to the Flood Insurance Rate Map 09001C0305F, dated June 18, 2010. The Housatonic River is tidal in the vicinity of the property, and is classified as SB, a classification for coastal waters. Water bodies with this rating are generally good quality, and support all recreational and commercial uses except for shellfish harvesting for direct human consumption.

1.5 Applicable Cleanup Criteria

Groundwater is classified as either GA or GAA for groundwater that meets the criteria for human consumption without treatment, or GB, as described in Section 1.2 above. Concentrations of substances in groundwater from on-site wells are therefore compared to RSR surface water protection criteria (SWPC). Groundwater concentrations are also compared to volatility criteria (VC), which indicate the general tendency of volatile organic compounds (VOCs) to infiltrate into indoor spaces from adjacent groundwater. VOC concentrations in groundwater less than 15 feet below grade are compared to residential VC (R VC) for general property use, and compared to industrial/commercial VC (I/C VC) if the property is restricted to non-residential uses.

CT RSR criteria for soil include DEC, PMC and Soil Vapor Volatilization Criteria (SVVC). DEC apply to accessible soils - those likely to be contacted directly by humans - and are classified as industrial/commercial (I/C) DEC for properties restricted to non-residential uses and residential DEC (R DEC) for all uses, including residential properties. Pollutant Mobility Criteria (PMC) apply to soils above the water table, and are a general indication of a contaminant's likelihood to leach into groundwater from the soil, and are classified according to the groundwater classification of the area (GA or GB). Soil vapor volatility criteria (SVVC) apply to VOCs and indicate the general tendency of the VOCs to infiltrate into indoor spaces from adjacent soils. SVVC are classified for use on industrial/commercial properties (I/C) or residential (R).

Groundwater underlying the site is classified as GB, and concentrations of its volatile contaminants are currently compared with the I/C VC. Concentrations in soils at the site are currently compared to I/C DEC, GB PMC and I/C SVVC.

1.6 Previous Investigations

Previous environmental investigations have been performed on this property. The first was a Phase I Environmental Site Assessment by Environmental Management Consultants, Inc. (EMC), completed in December 1993 At that time, the buildings still existed on the property and were being used for storage by the Chromium Process Company. EMC was not able to obtain access to the property for a site visit, and their report consists of information from file reviews and observations from the street. Their findings included the potential presence of a leaking 12,000-gallon fuel oil tank on the property and possible impacts from the abutting properties.

An assessment of this property was also completed as part of an assessment of several properties along Canal Street, performed by GZA Geoenvironmental, Inc. (GZA) in 1995. Similar to the 1993 report, the buildings still existed on the property, although there was some fire damage observed. GZA's assessment was limited to file reviews and observations from the street, because they were not given access to the property. Their findings were similar to those of EMC.

AECOM performed a Phase I Environmental Site Assessment (ESA) for the property in April 2012. Recognized environmental concerns (RECs) identified at the property included the detection of contaminants on the two abutting properties to the northwest and southeast, and the presence of a partly buried steel storage tank at the western end of the concrete-paved area.

On the behalf of the EPA, Nobis Engineering, Inc. (Nobis) performed a Targeted Brownfield Assessment (TBA in September 2012, which included the removal of the UST, collection of soil samples, the installation of monitoring wells, and the collection of groundwater samples. Soil samples (four sidewall samples and two bottom samples) collected from the tank grave were analyzed for VOCs, metals, polycyclic aromatic hydrocarbons (PAH), extractable total petroleum hydrocarbons (ETPH) and polychlorinated biphenyls (PCBs).

Nobis observed cinders and ash within the top 5 feet of soils from a boring in the eastern portion of the property. Analytical results for soil samples from the boring indicated PAH exceeding I/C DEC and chlorinated VOCs exceeding GB PMC in surficial soils (0-2') and chlorinated VOCs exceeding GB PMC in soils below the water table (13'-16'). Analytical results for soils collected from borings installed through the concrete slab indicated VOCs exceeding GB PMC and ETPH exceeding I/C DEC in near-surface soils, but concentrations below criteria in deeper soils. Demolition-type debris (brick, concrete, wood) was observed in soils beneath the slab to a depth of 20 feet.

A copy of this report is included as **Appendix A**.

Nobis collected additional soil samples to cover data gaps remaining from the TBA in March 2016. Analysis of soil samples indicated that VOCs and ETPH concentrations detected by Synthetic Precipitation Leachate Procedure (SPLP) in near-surface soils below the weathered concrete, and SPLP VOC concentrations in near-surface soils in the eastern portion of the site, were below 10 times the GWPC, and are therefore compliant with GB PMC. PAHs were detected at concentrations slightly exceeding the GB PMC, but because these soils contained significant quantities of coal ash, the PMC do not apply, in accordance with the RSRs (22a-133k-2(c)(4). The results from that additional sampling effort are included as **Appendix B**.

1.7 Overview of Remedial Action Plan

This RAP includes descriptions of the planned soil removal and replacement work, in addition to site management issues, such as health and safety protocols, waste management procedures, soil

sampling and analytical protocols, project scheduling, site security, record-keeping protocols, and post-remediation groundwater monitoring protocols to be implemented at the site.

The plan to achieve the remedial action objective includes:

- Removal and off-site disposal of up to 4 feet of contaminated soil from the eastern portion of the site;
- Removal and off-site disposal of former UST area soils from the western portion of the site;
- Excavation of soil up to depth of 4 feet behind the concrete foundation wall along the south side of the brook channel;
- Application of clean backfill soil to the excavated area to a depth of 4 feet to provide the necessary separation to render the remaining soils inaccessible according to the definition in the RSRs (Sec. 22a-133k-1(a)(32));
- Application of 4 feet of clean backfill soil on top of the existing concrete slab; and
- Restoration of the backfilled area with topsoil and grass seed.

Observations of additional needs or concerns will be recorded in the remedial action report prepared after these efforts are completed.

2.0 Remediation Planning

The following sections describe the remediation planning tasks to be performed in conjunction with the implementation of the remediation activities.

2.1 Health and Safety

AECOM has prepared a Health and Safety Plan (HASP) for activities previously conducted at abutting sites which meets the requirements of 29 CFR 1910.120. Prior to initiating field remediation activities, the existing HASP will be updated to incorporate the proposed activities on this site. All work will be conducted in accordance with the HASP. The HASP is intended to cover AECOM employees and site visitors only. Remediation contractors will be required to develop and follow their own HASP during all Site activities. All soil remediation work will be conducted by personnel that have 40 hour OSHA training.

The objective of the HASP will be as follows:

- To protect the health and safety of on-site personnel.
- To limit exposure of the public to hazardous substances, pollutants, or contaminants.

The HASP will include the following:

- Brief Site Description
- Site Safety Hazards
- Chemical Compounds of Concern
- Project Personnel
- Site Training/Medical Surveillance Requirements
- Personnel Protective Equipment (PPE) Requirements
- Decontamination Procedures
- Work Zones
- Remediation Derived Waste Disposal/Handling
- Emergency Response
- Special Operations Safety Requirements
- Emergency Resources
- Generic First Aid

2.2 Quality Assurance Project Plan (QAPP)

A QAPP developed for previous Site activities was updated and revised in 2015 for the SECP. The objective of the QAPP is to describe field sampling activities and procedures with regard to project goals and quality requirements. The QAPP includes:

- Descriptions of sampling locations and rationales
- Analyses for each location or group of locations
- Requirements for field sample collection and handling
- Procedures for sample documentation
- Laboratory requirements for data accuracy, precision and repeatability
- Requirements for data evaluation.

2.3 Permits and Approvals

The following permits and approvals from federal, state, or local governments are anticipated for this project.

- Flood Management Certification

  Placement of fill will decrease flood storage capacity within the 100-year flood plain, but not to a significant extent, given the size of the waterway (Housatonic River).

  As part of addressing potential flood hazards, an alternate staging area will be designated that is near the site, but outside the boundary of the 100-year flood plain. This area will be used to store equipment and supplies if a significant flood event is predicted while Site work is in progress.

  A Flood Management Certification was filed in December 2014 for this project and approved in February 2015.

- Local Inland Wetlands approval

  Work area is immediately adjacent to a perennial stream (Burying Ground Brook) and will require erosion and siltation controls.

  A Certificate of Compliance was filed with and approved by the Shelton Inland Wetlands Department in August 2016.

- Local Engineering Department approval

  Approval from the Engineering Department was received in August 2016.

No other approvals have been identified.

2.4 Public Notification

A public notice has been published in the Shelton Herald, and a notice sent to the Naugatuck Valley Heath District, as required by the Voluntary Remediation regulations (RCSA 22a-133x).

Prior to mobilizing to the site to perform environmental remediation activities, in accordance with Connecticut General Statutes 22a-144 (a- e), a sign will be posted at the site. It will not be less than

six feet by four feet in size, clearly visible from the road and include a name and telephone number of a person who can provide additional information about the project.

2.5 Sedimentation and Erosion Control

Prior to the initiation of vegetation removal and excavation activities at the site, an erosion and sedimentation control system (hay bales and/or silt fence) will be installed at the site perimeter along the foundation wall along the brook and, if necessary, along the parapet of the headwall over the culvert entrance. Site erosion and sedimentation controls will be installed and maintained in accordance with the Connecticut Guidelines for Soil Erosion and Sediment Control. To prevent off-site migration of materials, all equipment will be decontaminated prior to leaving the site and work will not be performed during heavy precipitation events.

2.6 Clearing and Grubbing

Woody vegetation has already been cleared from the site in preparation for this work. Prior to excavating soil, existing tree stumps will be removed, and all plant material will be disposed of at an approved facility. Soil that can easily be removed from the stumps will be brushed off and added to the site soil stockpile.

No significant debris (trash or dumped materials) has been observed to date on the site. If such is present at the time of mobilization, it will be removed and disposed at an appropriate waste facility.

2.7 Dust Control and Air Monitoring

The need for significant dust control is not anticipated on the site, as the soils are generally moist throughout, or consist mostly of coarse, dense particles that are unlikely to become airborne in measurable quantities. If conditions on the site result in visible emissions of dust, work will be suspended until appropriate dust control measures, such as the use of water to pre-wet soil, can be implemented. If dust control is considered necessary, a dust meter will be used to monitor air at the property boundaries.

2.8 Site Security

Temporary fencing will be used at the property to provide security during remediation activities.

2.9 Site Access

Access to the site for construction equipment and vehicles is not available directly from Canal Street; access will be through the adjacent City-owned property to the south, the former Axton-Cross property.

3.0 Remedial Actions

The following sections describe the remediation plan to be implemented at the site.

3.1 Areas of Remedial Activity

The areas included in this RAP include the eastern vegetated portion of the site, the central concrete-paved portion of the site, and fill soils previously associated with a partially-buried fuel tank near the western portion of the site. Areas are shown on **Figure 3**.

3.2 Approach to Remedial Action

The approach for this RAP includes soil excavation and disposal, backfilling, and restoration with topsoil and grass seed. With this approach, polluted historic fill is allowed to remain in place, but is made inaccessible by covering with a 4-foot thick layer of clean soil. Details are presented in the following sections, and shown on **Figure 3**.

3.3 Remedial Actions

The following conditions currently exist on the site:

- Concentrations of PAHs exceeding the GB PMC in the eastern (unpaved) portion of the site were detected in soils above the water table;
- The soils in the eastern portion of the site in which these concentrations were detected were observed to contain coal ash;
- Concentrations of metals and PAHs exceeding the I/C DEC were detected in soils within 4 feet of the surface in the eastern portion of the site;
- Concentrations of total VOCs and ETPH exceeding the GB PMC were detected in soils above the water table below the existing concrete slab, but SPLP analysis for VOC and ETPH in those locations was below 10 times the GWPC; and
- A concentration of ETPH equaling the I/C DEC was detected in soil within the top two feet of soil below the existing concrete slab.

The remedial actions below are intended to address these conditions through a combination of removal and rendering the soil inaccessible. According to RCSA 22a-133k-1 (a)(32), the soils must be at least 4 feet below the ground surface, or at least 2 feet below pavement, to be considered inaccessible. The existing concrete slab is in very poor condition and cannot be considered competent pavement, and in any case the concentrations in the soils immediately beneath the pavement should not exceed the I/C DEC, in accordance with RCSA 22a-133k-2 (b)(2). However, the DEC do not apply to inaccessible soil, provided an Environmental land Use Restriction (ELUR) is placed in effect for the site.

Therefore, the Remedial Action Plan proposes to render the slab area inaccessible by covering it with 4 feet of clean soil. Because of the walls on the north and south sides, and the steep slope to the west, the slab area is already recessed and adding clean fill will raise portions of this sunken area. However, the eastern portion rises up to be at the same elevations as the surrounding parcels. In this area, soils with concentrations exceeding DECs up to 4 feet below the surface will be excavated and

disposed of off-site, and 4 feet of clean fill will be placed in the excavation, which will match both the final elevation in the slab area and the elevations in the surrounding parcels.

3.3.1 Excavation

Soils up to 4 feet below grade with concentrations of contaminants exceeding RSR I/C DEC will be excavated and removed from the eastern portion of the site and from the former UST area. Approximate maximum dimensions of the eastern excavation area are 40 feet by 88 feet; the actual area will be reduced at the northern corner by the boundary of the railroad property, as shown on **Figure 3**. The estimated volume to be removed is 500 cubic yards.

The lowest elevation of the excavation bottom will be the approximate elevation of the existing concrete pavement in the central portion (9 - 10 feet NGVD), which will remain in place. Soil removed from areas further to the east will be removed, if necessary, to a maximum depth of 4 feet below grade. The bottom of the excavation will extend to the northwest and southeast property lines; the soil may be sloped outward to the surface along these sides onto adjacent City-owned properties, as necessary. No part of the excavation will extend beyond the boundary to the northeast into the railroad property.

Because of the unknown structural characteristics of the retaining wall on the south side of Burying Ground Brook and the concrete foundation wall constructed on top of it, the ability of these walls to take the loading of four feet of added soil could not be readily and economically determined. Therefore it was decided to excavate to approximately four feet below grade behind the foundation wall where it meets the weathered slab (approximately 100 feet of wall length), and slope the excavation back up to the slab grade over a width of approximately 15 feet to the south. The added clean fill will then provide the required 4 feet of separation from the remaining soils, but it will not increase the loading on the walls because it will restore the grade to its current elevations at the walls. The estimated volume to be removed is 100 cubic yards.

Approximate excavation areas are shown on **Figure 3**. The area of excavation in the eastern portion of the site is approximately 3,000 square feet; the approximate area to be excavated in the former UST area to the west is 1,250 square feet, with a volume of approximately 90 cubic yards; and the area of excavation behind the wall is approximately 1,500 square feet.

The excavated soils will be stockpiled on the adjacent property to the south, where there is a flat, concrete-paved area. The soil stockpile will be placed on minimum 6-mil polyethylene sheeting or a woven polyethylene tarpaulin and covered with a similar waterproof material such that rain will be directed away from the pile and wind will not remove the cover. Composite samples will be collected from the stockpile and submitted to the laboratory for waste characterization analytical parameters. Analytical results will determine disposal requirements for the stockpile.

3.3.2 Backfilling

The excavated eastern portion and the concrete-paved area will be backfilled with clean material up to a 4-foot depth, re-grading the site to smooth Site contours to the best practical extent. Clean fill will be placed in 1-foot lifts and compacted using the excavator bucket or other suitable means, with care taken not to create excessive force or vibration adjacent to the walls. The backfill should be contiguous from the edge of the railroad property to the level on the western slope where the top of the backfill elevation matches the slope elevation. The approximate filled area boundaries and finished elevations are shown on **Figure 3**.

The width of the backfilled area will be from the wall just south of the brook channel to the foundation wall at the boundary with the former Axton Cross property. The approximate dimensions are 210 feet long by 40 feet wide, with an area of approximately 8,000 square feet. The approximate volume of backfill needed is anticipated to be 1,200 cubic yards.

The backfill will be graded to smooth contours across the site. The top 3 to 4 inches of the backfill will be topsoil, and will be planted with grass seed. Straw, cellulose, or other appropriate cover material will be used to cover the grass seed to prevent erosion until the grass becomes established.

Since part of this volume will fill in the approximately 700 cubic yards of excavated area, there will be approximately 500 cubic yards of additional volume on the site; it will reduce flood storage by that amount within the 100-year flood plain. However, considering the typical flow rate for the Housatonic River, this should not have a significant affect. According to the USGS, average discharge rate from 1928 through 2013 was 31,046 cubic feet per second. The 500 cubic yards is 14,500 cubic feet, which is less than one-half second's worth of flow at average rates. An analysis of pre-and post-development flood storage capacity, performed for SEDC in 1998 by DeCarlo & Doll, Inc. for the much larger development to the south, found that adding approximately 55,000 cubic yards of fill within the 100-year flood zone would result in an increase in flood elevation of 0.01 foot in some sections of the floodway, and less than that in other sections. The analysis included elevations in the river from the Route 8 Bridge up to the Shelton-Derby dam. A Flood Management Certification for this project was approved in February 2015. Approvals from the Shelton Inland Wetlands and Engineering Departments were obtained in August 2016.

3.3.3 Site Restoration

Soil will be removed from the site and/or neighboring properties. Support material on the neighboring property related to the remediation activities (e.g., decontamination pad, staged material) will be removed.

3.3.4 Decontamination and Demobilization

Before demobilizing from the site, heavy equipment will be decontaminated as necessary to minimize the potential spreading of contamination off-site. Dry brushing will be used for equipment decontamination, with removed materials collected and added to the disposal stockpile. More aggressive decontamination methods (high pressure water or a steam cleaner) will be used if gross contamination (significant odors, staining or oily materials) is observed in removed soils and/or on equipment. These conditions are not anticipated on the site, but if decontamination liquids are generated, they will be collected in a lined decontamination area and drummed for disposal. Additional sampling and analysis of containerized fluids may be required if gross contamination is encountered.

3.4 Waste Management

Several waste streams may be generated during remedial activities at the site. The following presents a summary of the anticipated waste streams and the proposed management processes.

1. Approximately 700 cubic yards (CY) of soil will be removed as part of this effort. The excavated soil will be placed on polyethylene sheeting on the adjacent vacant, City-owned property to the south, covered with weatherproof tarpaulins and secured with sand bags and straw bales.

2. Other wastes, including concrete demolition (if necessary) and vegetation waste (stumps) from land clearing, will be removed and disposed of at appropriate facilities.

3. Decontamination media is anticipated to consist of solids brushed from equipment, which will be added to the stockpile. Liquid materials, if generated, will be temporarily containerized on-site, or at the adjacent City property to the south, prior to disposal at an off-site facility.

4. Other solid materials (such as plastic sheeting, hay bales, personal protective equipment, etc.) used during the remediation activities will be segregated from other waste streams. If solid materials come into contact with contaminated materials, the solid materials will be disposed of along with the contaminated materials. If the solid materials do not come into contact with contaminated materials, they will be disposed of as municipal solid waste.

Prior to being transported off-site, wastes will be properly characterized and profiled for disposal when necessary. Waste disposal will be approved as required and the intended facility will confirm their acceptance of the waste prior to transport. Regulated waste will be disposed of at a facility permitted to accept such wastes.

Waste removal from the site will be documented by manifest or bill of lading. The City of Shelton will be named as the generator of the waste and a representative of the City will sign waste profile forms and manifests. The waste disposal subcontractor will prepare disposal manifests or bills of lading and documentation for the city's use. The disposal documentation will be included in the Remedial Action Report.

4.0 Sampling and Analysis Plan

Sampling for this remedial action will include the collection of waste characterization soil samples and four quarters of post-remediation groundwater sampling. A brief description of sampling activities is presented in this section; Table 1 presents details of locations, sampling intervals and analyses for the groups of samples described below.

4.1 Additional In-Situ Characterization Sampling

Soil samples will be collected from two locations in the eastern portion of the site and from up to four locations behind the foundation and retaining walls. The locations are to be determined in the field, based on observed conditions. These locations are being sampled to provide additional characterization data for the soils. The results from the locations behind the walls may be utilized to guide additional remediation efforts in the future if there are concentrations exceeding applicable criteria.

The samples from the eastern portion are to be collected from the 0-4' depth interval, and will be analyzed for PAH and SPLP PAH. The samples from behind the wall will be analyzed for VOC, PAH, ETPH, and metals.

4.2 Waste Characterization Sampling

Composite waste characterization samples will be collected from the stockpile once the excavation is complete. The samples will be analyzed for parameters required by the disposal facilities.

4.3 Groundwater Sampling

Post-remedial groundwater sampling is not anticipated to be required at this site, as SPLP and TCLP analyses have not indicated there are contaminants exceeding the applicable GB PMC in site soils.

4.4 Laboratory Analysis

All proposed laboratory analyses will be performed by a laboratory certified to perform such analyses in the State of Connecticut. Detection limits will be selected to be below the applicable RSR and/or disposal criteria. The SOP laboratory protocols specific to the laboratory subcontractor will be applied. Details regarding the laboratory analytical methods will be provided in the QAPP that accompanies this project.

Waste characterization samples will be analyzed for the following parameters: volatile organic compounds (VOCs) by USEPA method 8260, polycyclic aromatic compounds (PAHs) by USEPA Method 8270, ETPH by the CTDPH method, PCBs by USEPA method 8081, total RCRA 8 metals by USEPA Method 6000 and 7000 series, ignitability, pH and reactivity. The metals will also be analyzed by the Toxicity Characteristic Leaching Procedure (TCLP).

Additional in-situ characterization samples will be analyzed by the same methods, as appropriate for analyses listed in Section 4.1 above. Two of the total PAH samples will also be analyzed using the synthetic precipitation leaching procedure (SPLP), in accordance with the sampling plan.

4.5 Quality Assurance/Quality Control

Field duplicate samples will be submitted along with the laboratory samples as part of QA/QC procedures. Approximately one field duplicate will be collected for every 20 samples analyzed.

Upon receipt of the laboratory data, AECOM will perform a review of the data to evaluate their usability.

5.0 Groundwater

Concentrations of contaminants detected in groundwater samples collected so far on the site have been below the applicable (SWPC) criteria. No remediation is planned at this time for site groundwater.

6.0 Remedial Action Schedule

Remedial Actions on this site are planned for the fall of 2016.

7.0 Documentation and Reporting

The City or its designated agent will oversee remediation activities and prepare and maintain a record of the activities performed. The City or its agent will be responsible for documenting that the project is completed in accordance with the specifications of this RAP, and generally accepted industry/engineering standards.

7.1 Field Documentation

The following list identifies the specific documentation and reporting requirements that will be required for this project.

- Maintaining an accounting of materials entering and leaving the site, including waste soils and other materials;
- Photographic documentation of completed excavations, previously unknown areas of contamination, completed remediation areas, and other pertinent observations;
- Documenting segregation, storage, and accounting of wastes that may be stockpiled at the site;
- Documenting and reporting of any spills, leaks, or other discharges occurring at the site;
- Documenting and reporting of any disruption/damage to utility structures;
- Documenting that erosion control and site security measures are adequately maintained throughout the project;
- Maintaining transportation/disposal documentation; and
- Documenting decontamination prior to demobilization.

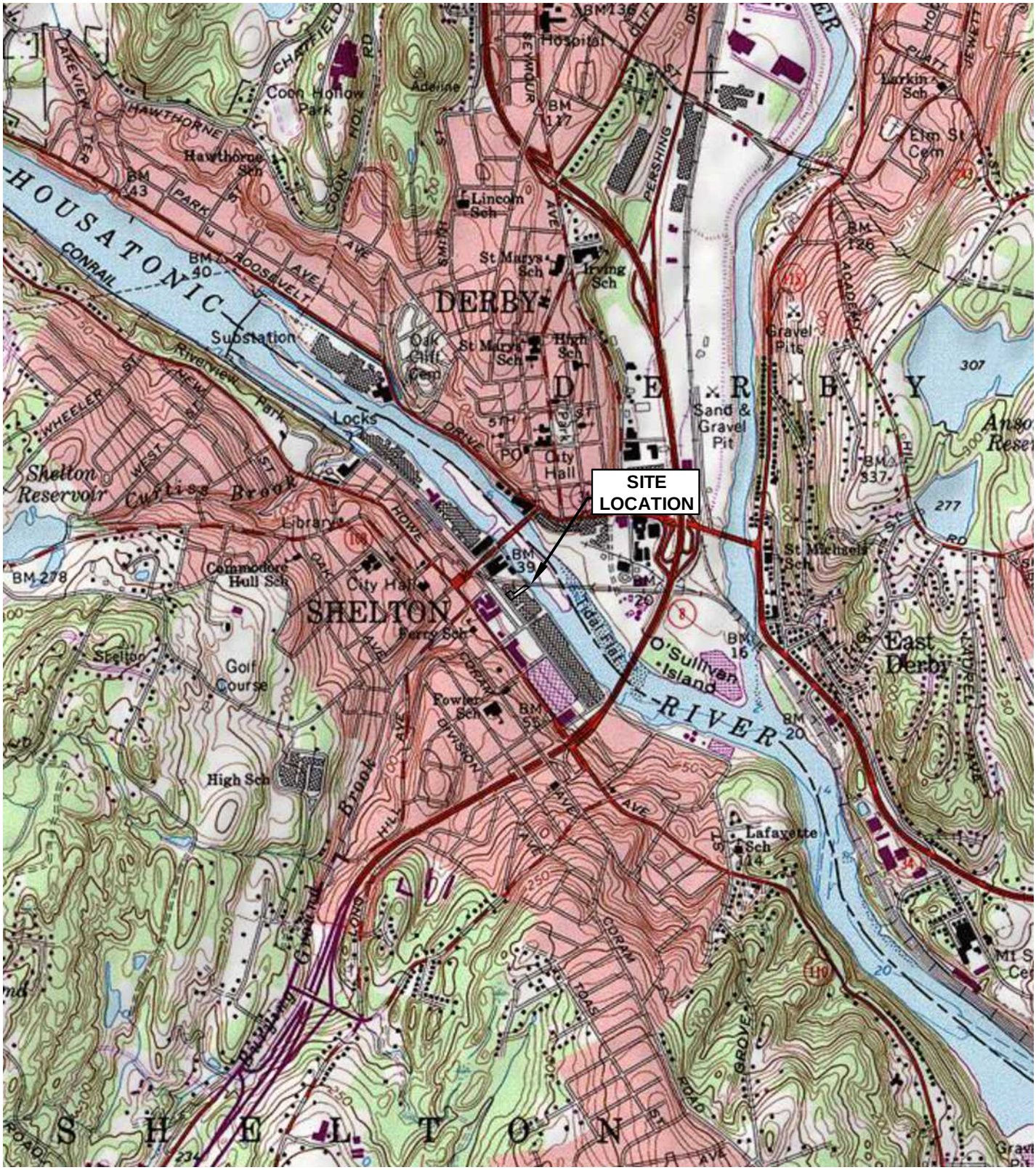
7.2 Post-Remediation Reporting

Following completion of post-remedial groundwater monitoring, a Remedial Action Report will be prepared for the site and submitted to CT DEEP. The report will describe the completed work at the site, and will contain the following specific items:

- Project narrative;
- Sample analytical data in tabular form;
- Complete laboratory reports;
- Calibration reports for sensing instruments used during the investigation, including the PID and water quality meter;
- Waste disposal documentation (manifests, bills-of-lading, certificates of disposal, etc.);
- Waste disposal summary indicating the weights, volumes, and disposition of excavated materials;
- Documentation of all backfill materials incorporated into the project;

- Documentation of soil sampling, including soil logs and PID readings;
- Documentation of well sampling, including development logs and sampling/purging logs;
- Photographs of remediation activities; and
- Recommendations for putting an Environmental Land Use Restriction in place for the site..

Figures



SOURCE:
USGS QUADRANGLE
ANSONIA, CT

N

0 2000 4000 6000

1" = 2000'

SCALE FEET

AECOM

Figure 1. Site Locus
Former Chromium Process
Land Parcel
113A Canal Street, Shelton, CT

REFERENCE: National Geographic TOPO! 2002

SCALE: 1" = 2000'

DATE: December 2015

PATH/FILENAME: X:\SHELTON CHROMIUM (LAND PARCEL CLEANUP)\400 TECHNICAL\CAD\CZSHE001.DWG

ANSI A - 5-11-06

LAST UPDATE: Tuesday, December 08, 2015 6:53:02 PM

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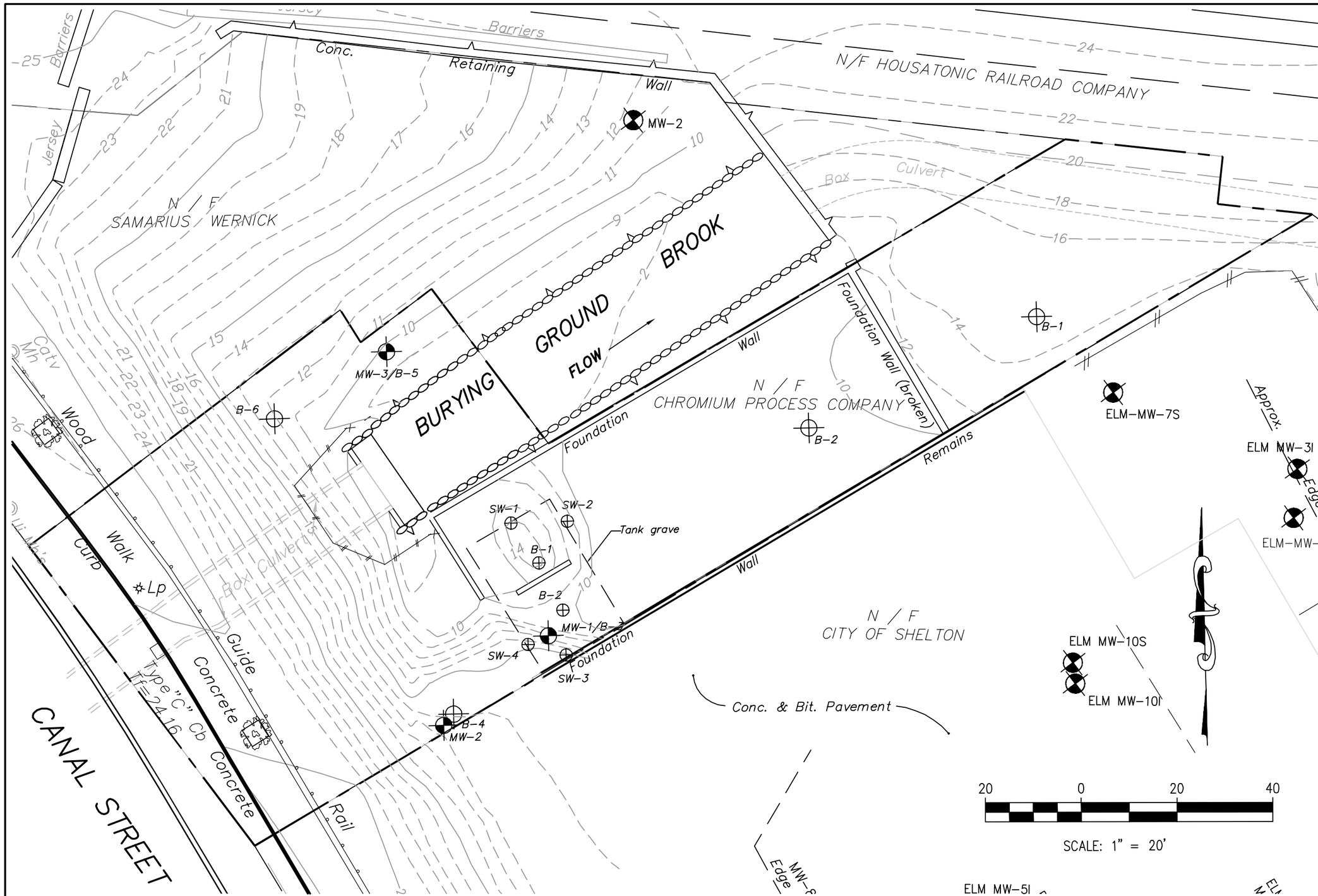

AECOM

Figure 2. Pre-remedial Assessment Locations
Chromium Process Storage Parcel
113A Canal Street
Shelton, CT

DATE: MARCH 2015	PROJECT: 60336705

LAST UPDATE: Wednesday, May 18, 2016 6:23:21 PM
PLOT DATE: Thursday, May 19, 2016 10:44:08 AM
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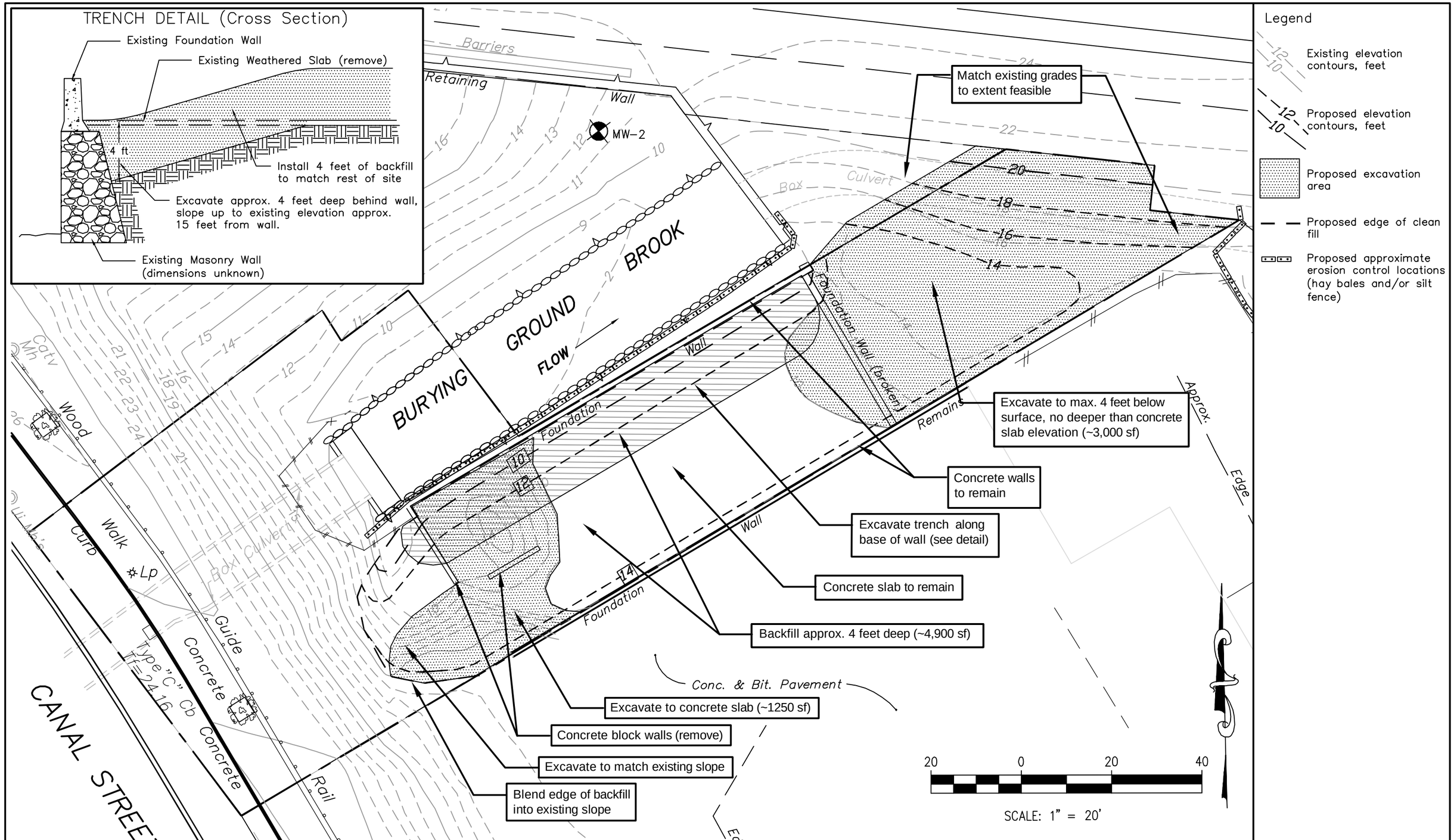

AECOM

Figure 3. Remedial Action Plan
Chromium Process Storage Parcel
113A Canal Street
Shelton, CT

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Table 1. Chromium Process Land Parcel
Sampling and Analysis Plan
Remedial Action Plan, 2016

Location	Number of Samples	Depth	Analyses	Rationale
Exposed sections of wall <4 ft below final grade	Up to 4	0' – 4'	VOC, PAH, ETPH, metals SPLP if exceeds GB PMC	Characterize for GB PMC and alt. GB PMC if needed
Additional in-situ characterization samples in eastern portion	Up to 2	0' – 4'	PAH, SPLP PAH	Provide additional data for soils in this section
Excavated soil stockpile	At least 2 (as required by disposal)	NA	VOC, ETPH, metals, TCLP metals, PAH, PCB	Disposal parameters

Appendix A

TBA Report, Nobis Engineering, Inc.

Targeted Brownfields Assessment

Former Chromium Process Storage Parcel
Shelton, Connecticut

Targeted Brownfields Assessment
EPA Task Order No. 0074-SI-BZ-0100

REMEDIAL ACTION CONTRACT
No. EP-S1-06-03

FOR

US Environmental Protection Agency
Region 1

BY

Nobis Engineering, Inc.

Nobis Project No. 80074

October 2012

U.S. Environmental Protection Agency

Region 1
5 Post Office Square, Suite 100
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www.nobisengineering.com

Targeted Brownfields Assessment

Former Chromium Process Storage Parcel
Shelton, Connecticut
Targeted Brownfields Assessment
EPA Task Order No. 0074-SI-BZ-0100

REMEDIAL ACTION CONTRACT
No. EP-S1-06-03

For

US Environmental Protection Agency
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By

Nobis Engineering, Inc.

Nobis Project No. 80074

October 2012

Scott W. Harding, P.E.
Program Manager

Stephen Vetere, P.E., L.E.P.
Project Manager

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FORMER CHROMIUM PROCESS STORAGE PARCEL
SHELTON, CONNECTICUT

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FORMER CHROMIUM PROCESS STORAGE PARCEL
SHELTON, CONNECTICUT

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A Field Forms
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1.0 INTRODUCTION

This Targeted Brownfields Assessment (TBA) Report was prepared by Nobis Engineering, Inc. (Nobis) for the United States Environmental Protection Agency (EPA) under contract No. EP-S1-06-03, Task Order No. 0074-SI-BZ-0100. This TBA Report provides a summary of assessment and data collection activities conducted by Nobis at the Former Chromium Process Storage Parcel (the Site) located at 113A East Canal Street in Shelton, Connecticut. A Site Locus Plan is included as Figure 1.

The objective of the TBA was to make a preliminary determination of the types and general extent of contamination present in soil and groundwater as a result of historical site operations. Soil and groundwater sampling data collected during the TBA were compared to Connecticut Remediation Standard Regulation (RSR) criteria to evaluate potential risks associated with contaminated environmental media. This information enabled the development of potential alternatives for clean-up, with order-of-magnitude cost estimates, that will help support decision making concerning future redevelopment of the Site.

TBA investigation activities and reporting were conducted in accordance with the EPA-approved Field Task Work Plan/Quality Assurance Project Plan Addendum (FTWP/QAPPA) prepared by Nobis on August 27, 2012 and approved by EPA on September 4, 2012. TBA activities included the following:

- Environmental Land Use Restriction (ELUR) Class A-2 survey
- Removal and off-site disposal of the abandoned underground storage tank (UST)
- Collection of confirmatory soil samples from the UST excavation
- Advancement of soil borings and collection of soil samples
- Installation of monitoring wells
- Collection of groundwater samples from newly-installed monitoring wells
- Data evaluation and development of remedial alternatives/cost estimates
- Development of this TBA Report.

2.0 KEY TEAM MEMBERS

Mr. Jim Byrne is the EPA Task Order Project Officer (TOPO) and Dr. Nora Conlon is the EPA QA Coordinator. Mr. Stephen Vetere, PE, LEP managed Nobis and subcontractor tasks and Ms. Heather Ford monitored project quality. Ms. Gail DeRuzzo coordinated the analytical laboratory subcontractor and managed data validation activities. Mr. Jeff Brunelle was responsible for the implementation of all field activities as the Field Operations Leader (FOL).

Laboratory analysis of soil and groundwater samples was subcontracted to Alpha Analytical, Inc. (Alpha) of Westborough, Massachusetts. New England Disposal Technologies (NEDT) of Sutton, Massachusetts was subcontracted to remove and dispose of the UST, and characterize/dispose of investigation derived waste (IDW) generated during the TBA. Soil boring advancement and monitoring well installation services were subcontracted to Technical Drilling Services (TDS) of Sterling, Massachusetts. DeCarlo and Doll, Inc. of Meriden, Connecticut was subcontracted to perform the Class A-2 Survey.

3.0 BACKGROUND

This section provides a physical description of the Site, historical site usage, discusses potential contaminants of concern, and summarizes previous environmental investigations completed at the Site.

3.1 Site Description

The Site consists of a vacant 0.3-acre parcel of land located in the downtown industrial area known as the Shelton Enterprise and Commerce Park. Formerly, a historical mill building associated with the Chromium Process Company occupied the Site and two adjoining properties along Canal Street. The adjoining properties, known as the Samarius and Axton Cross properties, border the Site to the northwest and southeast, respectively. The Housatonic River and the Penn Central railroad and trestle border the Site to the northeast. Canal Street and the Chromium Process Company (across Canal Street) border the site to the west and southwest.

Historically, the Chromium Process Storage Parcel was occupied by a two-story corrugated metal building and a concrete vault-like structure. These buildings were demolished by the City

in the late 1980s. Building remnants, including foundation walls and an old concrete courtyard, are present in the center of the Site. Burying Ground Brook flows northeast from a concrete culvert in the center of the property, approximately 80 feet across the ground surface, into another concrete culvert located on the Samarius Property, and discharges to the Housatonic River adjacent to the railroad trestle directly north of the Site.

Based on the local topography and the presence of surface water in the vicinity of the Site, groundwater flow is inferred to follow the Burying Ground Brook flow direction toward the northeast to the nearby Housatonic River.

3.2 Historical Site Use

Historical City records indicate that the Site was developed as a manufacturing facility around 1910 as part of industrial growth initiated in the late 1800s. Site manufacturing included metal goods (brass and silver), cloth, and textiles. Additionally, the Site operated as a chemical company, a printing facility, and after 1924 as a warehouse/storage facility. In 1948 the building became part of the Chromium Process Company (currently located across Canal Street) and was used as storage for their metal plating operations. There has been no use of the Site since demolition of the on-site buildings in the 1980s.

Environmental conditions at the Site, the Samarius Property, and the Axton Cross property are currently being evaluated to support revitalization of the Shelton Enterprise and Commerce Park area. Recent area revitalization has included the completion of Veteran's Memorial Park located further southeast along Canal Street.

3.3 Contaminants of Concern

To date, no subsurface investigations or remedial actions have been performed at the Site. However, investigations at both adjoining properties (Samarius and Axton Cross) have detected metals, volatile organic compound (VOC), and polycyclic aromatic hydrocarbon (PAH) contamination in soil and groundwater. Maximum concentrations of contaminants in groundwater collected from nearby wells on abutting properties suggest that low levels of contamination may be present in groundwater at the Site as a result of releases that occurred on adjacent parcels.

3.4 Previous Site Investigations

AECOM conducted a Phase I Environmental Site Assessment (ESA) for the Site in April 2012. The Phase I ESA identified the following recognized environmental concerns (RECs):

- Investigations at both adjoining properties (the Former Samarius Property and Former Axton Cross) have detected contamination in soil and groundwater. Data for the Former Samarius Property indicates the presence of metals, petroleum, and polycyclic aromatic hydrocarbons (PAHs) in the soil and metals in the groundwater. Data for the Former Axton Cross indicates the presence of volatile organic compounds (VOCs), PAHs, and metals in the soil; and VOCs and metals in the groundwater. It is possible the contamination at these properties extends beyond their respective boundaries onto the Site.

- One drum of unknown contents was observed during a Site visit.

- One partially buried, approximately 4,000 gallon heating oil UST was observed at the Site.

The TBA field activities conducted by Nobis were focused on evaluating whether the RECs identified above have resulted in the release of contaminants to the environment, defined by the Connecticut Department of Energy and Environmental Protection (CTDEEP) as the presence of contaminants above laboratory reporting limits, unless such detections can be attributable solely to naturally occurring or background conditions.

4.0 SUMMARY OF INVESTIGATIONS

Nobis conducted TBA field activities at the Site between September 5 and 13, 2012. UST removal, tank excavation confirmatory soil sample collection, soil boring advancement, subsurface soil sample collection, and monitoring well installation were completed on September 5 and 6, 2012. The property boundary survey and groundwater sampling were completed on September 12 and 13, 2012. Soil boring locations, monitoring well locations, soil sample locations from the tank removal area, and the Site boundary and features are depicted on Figure 2.

4.1 Underground Storage Tank Removal

Connecticut's Call Before You Dig (CBYD) service was notified prior to conducting invasive investigative work at the Site. NEDT pre-marked the investigation area for both tank removal and drilling activities, and CBYD number 20123402828 was assigned to this project.

On September 5, 2012 Nobis was on-site to oversee tank removal activities conducted by NEDT. NEDT commenced removal of the 4,000-gallon heating oil UST by clearing brush around the UST area and opening the UST top manway for to access the interior of the UST. No initial UST excavation was necessary because the UST was only partially buried; the top and part of the sides of the UST were already exposed.

NEDT removed approximately 30 gallons of oily water from inside the UST using an electric submersible pump. After removing water from the tank, NEDT monitored atmospheric conditions inside the UST using a 4-gas meter capable of reading levels of oxygen, hydrogen sulfide, lower explosive limit, and carbon monoxide and entered the UST to clean out residual sludge after UST conditions were confirmed to be suitable for entry. A total of approximately 80 gallons of sludge were generated during cleaning of the UST. NEDT containerized the tank sludge and oily water mix into two 55-gallon drums and staged them at the Site. Once clean, NEDT excavated soil from the sides of the UST and hoisted the UST out of the tank excavation using an excavator.

NEDT cleaned the outside of the tank and secured the UST to a flat bed trailer in preparation for transport to the disposal facility. The UST appeared to be in good condition, with no holes or penetrations, and little evidence of weathering or pitting on the UST's exterior. NEDT transported the UST to Chase Metals in New Haven, Connecticut for recycling. No UST piping was present in the vicinity of the UST removal area.

4.2 UST Excavation Confirmatory Soil Sampling

Nobis collected four sidewall (one from each) and two bottom (one at each end of the UST) confirmatory soil samples from the UST excavation to test for residual soil contamination. Immediately upon collection, excavation samples were screened for the presence of VOCs with a MiniRAE 2000 photoionization detector (PID) calibrated to a 100 ppm/v isobutylene standard. Soil samples were collected for laboratory analysis of VOCs by EPA Method 8260C, extractable

total petroleum hydrocarbons (ETPH) by the CTDEEP Method, PAHs by EPA Method 8270D, polychlorinated biphenyls (PCBs) by EPA Method 8082, and priority pollutant (PP) metals plus barium and vanadium by EPA Method 6010C/7471B. UST grave soil sampling results are presented in Table 1. UST soil sampling locations are depicted on Figure 2.

UST soils consisted of brown, medium to fine sand, with little coarse sand and gravel. Maximum PID screening results were 2.6 ppm, encountered in sidewall sample S-4 collected from the western sidewall of the excavation. Nobis did not observe visual or olfactory evidence of soil contamination in the UST excavation, therefore no additional soil was excavated from the UST grave.

NEDT backfilled the UST excavation with native soils located adjacent to the former tank after soil sampling was complete. A large amount of backfill was not required since the UST was only partially buried prior to removal. In addition, NEDT collected samples of the IDW (former UST contents) generated during UST removal activities for disposal characterization analysis.

4.3 Soil Boring Advancement and Subsurface Soil Sample Collection

On September 5, 2012 Nobis oversaw the advancement of soil borings by TDS. TDS advanced five soil borings at the Site to collect soil data with which to evaluate the RECs identified in the Phase I ESA and make a preliminary evaluation of the presence and nature of contamination in soils. Soil borings were advanced in proximity to site features such as the former UST location, upgradient and downgradient site boundaries, etc.) and field observations made during boring advancement activities. Soil boring locations are shown on Figure 2.

- B-1 was advanced in the eastern portion of the Site to evaluate soil conditions downgradient from the former UST and storage operations area.

- B-2 was advanced within the footprint of the former building to evaluate soil conditions within the area presumed to have been used for the storage of waste chemicals. Soil boring B-2 is also believed to be near the location of the drum with unknown contents that was identified as a REC in the 2012 Phase I ESA, however Nobis was unable to locate this drum during the investigation.

- B-3 was advanced immediately downgradient from the former UST to evaluate potential impacts to soil and/or groundwater from the contents of the UST.

- B-4 was advanced on the western portion of the Site to evaluate potential soil and groundwater impacts resulting from contamination on upgradient properties.

- B-5 and B-6 were advanced in the northern corner of the Site to evaluate soil and groundwater conditions on the north side of Burying Ground Brook that, according to historical Sanborn fire insurance maps, was formerly utilized by the National Folding Box Paper Company, and later Sidney Blumenthal and Company, for storage.

TDS advanced borings using a Geoprobe 6620DT direct push drill rig. Soil samples were collected continuously from the ground surface to approximately ten feet into the water table by advancing 5-foot sections of 2-inch metal casing lined with disposable polyethylene sleeves. After each 5-foot run, the polyethylene sleeves were extracted from the casing for soils analysis. Dedicated sample sleeves were used for each 5-foot sampling run at each boring. Maximum boring depths were encountered in borings B-1 and B-4, which were advanced to 25 feet below ground surface (bgs).

Nobis classified soils and used a PID to screen soil samples extracted during each sample run. Soil conditions ranged from urban fill material (a mix of sand, gravel, brick, concrete, and debris) at the surface to stream sediment deposits at depth at each of the boring locations. PID screening values ranged from non-detect to a maximum of 3.2 parts per million by volume (ppm/v), obtained at the groundwater interface at boring B-1. Refer to the boring logs included in Appendix A for soil descriptions and PID screening results for each sample interval at each boring location.

With the exception of soil boring B-4, a surface soil sample collected from 0 to 2 feet bgs and a subsurface soil sample collected “at depth” (varies in each boring) were submitted for laboratory analysis of VOCs, ETPH, PAH, PCB, and metals. “At depth” samples were selected based on PID screening results or the groundwater interface elevation, as no visual or olfactory evidence of contamination was noted during boring advancement. A surface soil sample was not submitted from boring B-4 because recent roadway work at Canal Street had introduced new fill material into the boring area, thus a surface soil sample at this location would not be

representative of historical Site soils. A summary of soil sampling results collected from soil borings is presented in Table 2. Soil samples from soil boring B-1 were also submitted for laboratory analysis by the Synthetic Precipitation Leaching Procedure (SPLP) for metals to enable comparison of results to the Connecticut RSR Pollutant Mobility Criteria (PMC). SPLP metals analytical results are presented in Table 3.

4.4 Monitoring Well Installation

Soil borings B-3, B-4, and B-5 were each completed as monitoring wells MW-1, MW-2, and MW-3, respectively. MW-1 and MW-3 were installed as 2-inch monitoring wells by over-drilling the 2-inch borehole with 3-inch casing. TDS encountered 3-inch casing refusal while trying to set MW-2 into boring B-4. Because of this, MW-2 was constructed as a 1-inch well, installed approximately 5 feet from boring B-4, using 2-inch casing.

Monitoring wells were constructed with PVC materials consisting of ten feet of .010-inch slotted screen and solid riser to bring the well to the ground surface. The annular space around the well screen was filled with 00 sandpack, which was extended 1 foot above the top of the screen. A 1 foot thick bentonite seal was installed above the sandpack and the remainder of the borehole annulus was backfilled using native soils. Monitoring wells were finished at the ground surface with a flush-mount road box protective cover. Refer to Appendix A for monitoring well construction details.

4.5 Groundwater Sampling

On September 13, 2012 Nobis collected groundwater samples from the three newly installed monitoring wells. The day prior to sample collection, newly installed monitoring wells were developed to remove fines from the well and well pack materials. MW-1 and MW-3 were developed by pumping and surging the well screen interval with a down-hole electric pump. This method was used at MW-2 because the decreased size of the 1-inch well would not accommodate the size of the electric pump. Instead, MW-2 was developed by pumping the well at a high flow rate using a peristaltic pump.

Observations were recorded during the development process. Initial development water was laden with silt; however water clarity improved with continued well development. During well development, water clarity was tested using a Hach 2100P turbidity meter. Final turbidity

measurements in each well were below 4 nephelometric turbidity units (NTUs), indicating that fine material from the well screen and well pack had been removed and that development water exiting the well was virtually silt free.

IDW generated during well development was containerized into a 55-gallon drum. Twenty gallons of water was removed from both MW-1 and MW-3 (40 gallons total). Five gallons of water was purged from MW-2 during development. Based on these volumes and the water table elevation measured prior to development, over 10 well volumes were removed from each well.

Following development, Nobis collected groundwater samples from each monitoring well. Nobis used dedicated polyethylene tubing with the inlet located approximately at the mid-point of the well screen to collect samples from each well. Monitoring wells were sampled in accordance with USEPA Region I Low Flow/Low Stress methods. Nobis purged monitoring wells using a peristaltic pump while well drawdown was gauged with an electronic water level probe. Purging rates were maintained at 300 milliliters per minute (ml/min) or less, and drawdown in the wells was limited to less than 0.06 feet at each sampling location.

Nobis used a Yellow Springs Instruments (YSI) multi-parameter sonde equipped with a flow-through cell and a Hach 2100P turbidity meter to monitor purge water for stabilization of field indicator parameters while purging each well. Both the YSI and turbidity units were calibrated prior to the start of groundwater sampling activities.

Field parameters were monitored at 5 minute intervals until the following stabilization criteria were met for three consecutive readings:

- Temperature did not vary by more than 3 percent;
- Specific conductance did not vary by more than 3 percent;
- pH did not vary by more than 0.1 units;
- ORP did not vary by greater than 10 millivolts.
- Dissolved oxygen did not vary by more than 10 percent; and
- Turbidity measured less than five nephelometric turbidity units (NTUs).

Nobis recorded groundwater sampling data on dedicated groundwater sampling field sheets (included in Appendix A). Nobis collected groundwater samples after field parameter

stabilization conditions were met. Final field indicator parameter results for each monitoring well are presented in Table 4.

Nobis filled laboratory-supplied sample bottles directly from the pump discharge line (groundwater monitoring equipment and associated tubing was disconnected to collect samples). Samples were placed on ice in a cooler, logged on a chain-of-custody form, and delivered to the laboratory via courier provided by the laboratory. Groundwater samples were submitted for laboratory analysis of VOCs by EPA Method 8260C, ETPH by the CTDEEP method, PAHs by EPA Method 8270D Selective Ion Monitoring (SIM), PCBs by EPA Method 8082, and PP metals plus barium and vanadium by EPA Method 6010C/7471B.

4.6 Site Survey

On September 13, 2012 DeCarlo and Doll, Inc., a Connecticut-licensed survey firm, conducted a Class A-2 survey at the Site. This survey was conducted to identify:

- Site boundaries;
- Location of Site improvements, including borings and monitoring wells, and other Site features;
- Location and width of easements, utility lines, rights of way and building setback lines;
- Location of all encroachments and restrictions, if any; and
- Latitude and longitude of the center of the property.

The purpose of the survey is to support an ELUR should an ELUR be determined to be the most cost effective way to redevelop the Site; however, since an ELUR has not yet been deemed necessary or established at the Site, extents of the ELUR were not included during this survey effort. The DeCarlo and Doll survey plot is included as Appendix B and was used as a template for the site plans included in this report.

4.7 Investigation Derived Waste

IDW including tank sludge, well development and sampling purge water, and debris (equipment and materials contaminated during fieldwork) were managed in accordance with the Generic QAPP. IDW was stored in 55-gallon steel drums and temporarily staged at the Site. NEDT collected waste characterization samples so that the wastes could be profiled for proper off-site

disposal. Analytical data for waste characterization samples is provided in Appendix C. IDW transportation and disposal is pending the approval of waste profiles by the receiving facility.

5.0 SUMMARY OF SAMPLING RESULTS

Soil and groundwater laboratory testing results are summarized in the following sections. Analytical results are compared to the applicable Connecticut Remediation Standard Regulation (RSR) criteria to make a preliminary evaluation of potential risks associated with contamination and to determine the need for remedial actions or use limitations to facilitate reuse or redevelopment.

Soil analytical results were compared to the Connecticut RSR Industrial/Commercial Direct Exposure Criteria (I/C DEC) and GB Aquifer Pollutant Mobility Criteria (GB PMC). Soil data were not compared to the Residential DEC or the GA/GAA PMC because residential use of the parcel is not anticipated in the foreseeable future and the Site is located within a GB Aquifer area (and groundwater is not used as a potable source).

Groundwater analytical results were compared to Connecticut RSR Surface Water Protection Criteria (SWPC) and the Industrial/Commercial Volatilization Criteria (I/C VC). Groundwater analytical data were not compared against the RSR Groundwater Protection Criteria (GWPC) because the Site is within a GB Aquifer and groundwater is not being used as a source of potable water. Groundwater analytical data were not compared to the Appendix D values in the Connecticut Water Quality Standards because the Site's groundwater does not discharge into a wetland or intermittent stream.

5.1 Data Validation

Nobis performed a Tier I Modified data validation in accordance with the *Region I, EPA-NE Data Validation Functional Guidelines for Evaluating Environmental Analyses, December 1996 Criteria*. Data validation was performed on soil, groundwater, and QA/QC samples collected during the TBA. Tier I data validation only evaluates completeness of the data. Results of QA/QC samples were also evaluated but qualification of the data was not performed. Limitations and bias of the data were noted in the data validation reports, which are provided in Appendix D. Based on the data validation performed, Nobis determined that the data has achieved data quality objectives (DQO) and are deemed usable.

All of the laboratory analyses were performed by Alpha Analytical in accordance with the CTDEEP's Reasonable Confidence Protocols (RCP). Each data package included an RCP QA/QC Certification Form filled out by the laboratory to address potential quality issues that might impact the usability of the data. The case narrative provided by Alpha discusses any potential issues that are flagged on the certification form. Based on Nobis' review of the analytical data, none of the potential issues identified in the case narrative or in the QC tables were determined to have significant adverse impact to the quality of the data, and the analytical data were determined to be usable to support the objectives of the TBA.

5.2 UST Removal Confirmatory Soil Analytical Results

Nobis submitted four sidewall and two bottom surface confirmatory soil samples from the UST excavation for laboratory analysis. The objective of these soil samples was to evaluate whether a release had occurred from the abandoned UST that was removed during the TBA. Soil samples were analyzed for the presence of PAHs, PCBs, metals, VOCs, and ETPH.

In general, there were very few detections of contaminants in the UST removal area soil samples. There were no VOCs or PCBs detected above laboratory detected limits in any of the UST removal area soil samples. PAHs were only detected in one sample (TG-SW-3, the south sidewall). ETPH was only detected in 3 of the samples at low concentrations.

The only detection of contamination that was above an RSR criteria applicable to the site was the detection of PAH compound benzo(b)fluoranthene in sample TG-SW-3, which was detected at a concentration of 1.8 mg/kg. The GB PMC for benzo(b)fluoranthene is 1.0 mg/kg. All other contaminants detected in the UST removal area soil samples were below applicable RSR criteria.

ETPH was detected in three of the samples submitted for laboratory analysis at levels well below RSR criteria. The maximum concentration of ETPH detected in UST removal area soil samples was 53 mg/kg. The I/C DEC and GB PMC for ETPH are 2,500 mg/kg.

Metals were detected in each of the samples submitted for analysis; however, no metals were detected above RSR criteria in any of the samples.

UST removal confirmatory soil sample results are presented in Table 1. Figure 2 depicts sampling locations within the UST excavation. A data validation memorandum for soil analytical results is included in Appendix D.

5.3 Soil Boring Analytical Results

Nobis submitted 11 soil samples collected from six borings for laboratory analysis. With the exception of B-4, a surface soil sample (0-2 feet) and a “deep” sample (depth varies per boring) was submitted for laboratory analysis from each boring. A surface soil sample was not collected at the B-4 location since recent roadway work introduced new soil (presumably clean) to the area of the boring. The objective of these soil samples was to determine whether releases have occurred as a result of historical site operations. Soil samples were analyzed for the presence of PAHs, PCBs, metals, VOCs, and ETPH.

PAH compounds were detected above the GB PMC and I/C DEC in B-1 and B-6 surface soil samples (0- to 2-feet bgs). Compounds detected over RSR criteria include benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene and benzo(k)fluoranthene. PAHs were detected in surface soil samples collected from boring locations B-2, B-3, and B-5 below RSR criteria. PAH compounds were not detected in any of the deep samples submitted for laboratory analysis.

ETPH was detected at the I/C DEC and GB PMC in the shallow sample collected from B-2. Aside from the B-4 and B-5 deep samples, where ETPH was not detected, ETPH was present at levels below RSR Criteria in the remainder of the samples.

Arsenic was detected in the deep sample collected from B-1 at levels above the I/C DEC. Chromium was detected in the surface soil sample collected from B-6 at a concentration exceeding the I/C DEC for hexavalent chromium. Metals were detected in the each of the other samples submitted for analysis at levels below the I/C DEC.

In order to enable comparison of soil analytical data for metals with the GB PMC, Nobis submitted the soil samples from B-1 for laboratory analysis of Synthetic Precipitation Leaching Procedure (SPLP) metals. The samples from B-1 were selected because they contained the highest concentrations of metals and should provide the most conservative estimate of the

leaching potential for metals present in Site soils. None of the metals detected in these samples exceeded the GB PMC.

VOC compounds were detected above the GB PMC in B-1 surface and deep samples, and in shallow samples collected from B-2, B-3, and B-5. Compounds detected above RSR criteria include chloroform, tetrachloroethene (PCE), and trichloroethene (TCE). Aside from the B-6 deep sample where VOCs were not detected, VOCs were present at levels below RSR criteria in the remainder of the samples.

PCBs were not detected in any of the samples submitted for laboratory analysis.

Soil sample results from soil borings are presented in Table 2. SPLP metals analytical results are provided in Table 3. Figure 3 depicts boring locations and relevant sample data. A data validation memorandum for soil analytical results is included in Appendix D.

5.4 Groundwater Analytical Results

Nobis submitted three groundwater samples collected from the three newly installed monitoring wells for laboratory analysis. Groundwater samples were analyzed for the presence of PAHs, PCBs, metals, VOCs, and ETPH.

There were no exceedances of applicable RSR criteria (SWPC or I/C VC) in any of the groundwater samples. Notable detections included the chlorinated solvents PCE; TCE; *cis*-1,2-dichloroethene (DCE); 1,1,1-trichloroethane (1,1,1-TCA), and 1,1,-dichloroethane in groundwater samples collected from MW-1 and MW-2. There were no VOCs detected in the groundwater sample collected from MW-3.

Low level PAH compounds were detected in groundwater collected from MW-3. PAH compounds were not detected in samples collected from MW-1 or MW-2. Low concentrations of antimony, arsenic, and barium were detected in groundwater samples collected from all three wells, but no other metals were detected in the groundwater samples. PCBs and ETPH were not detected in any of the groundwater samples.

Groundwater sample results are presented in Table 5. Figure 3 depicts monitoring well locations. A data validation memorandum for groundwater analytical results is included in Appendix D.

5.5 IDW Characterization and Disposal

Three 55-gallon steel drums of IDW were generated during TBA activities. One drum of monitoring well purge water and two drums of tank clean-out sludge/oily water/debris mix are temporarily stored at the northeast corner of the remediation system fence at the Axton Cross property. Removal and disposal of IDW is pending approval of the waste profiles by the receiving facility.

6.0 CONCLUSIONS AND RECOMMENDATIONS

This section provides conclusions based on the environmental data collected during the TBA and provides remedial recommendations to address contaminants of potential concern that would facilitate reuse and redevelopment of the Site.

6.1 Conclusions

Concentrations of PAHs, ETPH, and VOCs detected in surface soil samples collected from the Site indicate that a release (or releases) of contaminants to the environment has occurred, most likely as a result of historical Site operations. Based on the limited number of soil samples collected during the TBA, there do not appear to be localized areas of concern (AOCs) that can be attributed to specific sources (such as the abandoned UST or an abandoned drum), but instead contamination appears to be widespread and relegated primarily to surface soils. Historical use and/or storage of chlorinated solvents and petroleum products, and the presence of combustion by-products on the Site, are likely to have resulted in the release of contaminants to surface soils. The release of contaminants may have occurred at several locations throughout the Site, and the resulting contamination may be a result of several small releases occurring over time as a consequence of the use and storage of industrial chemicals.

Although there are several compounds that exceeded applicable RSR soil criteria, the magnitude of the exceedances are generally not very high, providing further evidence that contamination is likely present as a result of several small releases and localized area of high

contamination are not present on the Site. The following is a summary of the comparison of analytical data to the applicable Connecticut RSR criteria:

- The maximum concentration of benzo(a)pyrene detected was 8.5 mg/kg, which is only 8.5 times higher than the I/C DEC. Benzo(a)anthracene was detected at a maximum concentration of 8.8 mg/kg, which is only slightly above its I/C DEC of 7.8 mg/kg. The other two PAHs that were detected above RSR soil criteria did not exceed the I/C DEC, but only the GB PMC. Neither of these constituents was detected in groundwater samples, suggesting they are not present in soils at significant concentrations that are likely to impact groundwater quality.

- None of the concentrations of VOCs detected in soil samples exceeded the I/C DEC. In fact, none of the VOCs detected in soil samples exceeded the Residential DEC, indicating that, with respect to direct contact with VOCs, Site soils are suitable for unrestricted use. The only RSR criteria exceeded in soil samples collected during the TBA was the GB PMC, which is intended to provide an indication of the likelihood that contamination in soils will leach into groundwater. VOCs were detected in groundwater samples, but below applicable RSR criteria.

- The maximum concentration of ETPH detected in soil samples collected during the TBA was 2,500 mg/kg in the surface soil sample collected from B-2. The I/C DEC and GB PMC for ETPH are 2,500 mg/kg. None of the other soil samples, including those collected from the UST excavation area, exceeded the Residential DEC or GA/GAA PMC for ETPH, suggesting petroleum hydrocarbons are not a significant contaminant of concern.

- A qualitative evaluation of metals data indicates that concentrations of metals are higher in samples collected from the surface soil depth interval than in the soil samples collected “at depth”. This suggests there have been anthropogenic impacts to surface soils. However, there were no metals detected in surface soil samples above applicable RSR criteria with the exception of chromium detected in B-6 (110 mg/kg total chromium compared to the I/C DEC of 100 mg/kg hexavalent chromium). Eliminating the conservative assumption that all of the chromium detected in this soil sample is present as the more toxic hexavalent species, there would be no exceedances of the I/C DEC in

surface soils. A comparison of metals analytical data to the more conservative Residential DEC indicates there would be no additional exceedances than those identified above.

- There were no PCBs detected in any samples, indicating no release of PCBs has occurred on the Site.

It should be noted that the conclusions stated above are based on a limited number of samples collected during the TBA due to the objective of the investigation, which was to make a preliminary determination of the types and general extent of contamination present in soil and groundwater. The remedial recommendations made below could be refined by the collection of additional data, should the redevelopment objectives warrant additional investigation and a more detailed evaluation of cleanup options.

In particular, the following environmental investigations could be useful to refine the recommendations and cost estimates presented in the following section:

- Additional soil sampling around B-1 and B-5 would help to delineate the vertical and horizontal limits of PAH (and potentially VOC) contamination warranting remediation.

- Additional soil sampling around B-2 would help delineate the vertical and horizontal limits of ETPH (and potentially VOC) contamination warranting remediation.

It should be noted that in order to demonstrate compliance with the DEC, the RSR requires that the 95 percent upper confidence level (UCL) of the mean concentration of each contaminant be below the DEC (unless all of the sampling results are below the DEC). The collection of additional samples from the area around the current DEC exceedances would serve not only to delineate the extent of the release, but also would provide a larger data set with which to evaluate the average concentration relative to the I/C DEC. Given the fact that data collected during this TBA indicated only slight exceedances of the I/C DEC, it is possible that additional soil sampling data would support a conclusion that average concentrations are below the I/C DEC and therefore no active remedial actions are warranted.

6.2 Recommendations

Nobis understands that the intended reuse of the Site is open space as part of a commercial/industrial redevelopment project spanning the Samarius and Axton Cross properties. As such, remedial measures are likely to be required to address potential risks associated with direct contact by site occupants with PAH and ETPH contamination in soils. Based on the groundwater sampling data collected during the TBA, Nobis assumes remedial measures are not warranted to address exceedances of the GB PMC, nor is groundwater remediation necessary. Additional sampling data will be required to more adequately support these conclusions.

In the remedial recommendations presented below, due to the limited number of data points present and the potential that contamination is present at similar (or higher) levels throughout the Site, conservative estimates of remediation areas and volumes are made to account for the uncertainty associated with the Site data. As discussed in the previous section, additional data collection would help to refine these recommendations and associated cost estimates.

The remedial options and cost estimates provided below are intended to be order-of-magnitude estimates to help guide decision making with regard to site redevelopment. The cost estimates are based on the assumption that remedial measures would be taken for this Site alone. In actuality, remediation at this Site may be implemented in concert with remediation or redevelopment efforts on adjacent sites, in which case cost savings are likely to be realized from shared resources and economies of scale. For instance, equipment mobilization costs for remediation at this Site might be shared with remedial efforts at adjacent sites or transportation and disposal costs might be less if a greater quantity of soil requires off-site disposal.

In addition, due to the limited quantity of data available, there are no “excavation only” options presented in this section. Given that localized areas of high contamination were not identified during the TBA, and given the lack of data available to characterize the vertical extent of contamination, there would be too much uncertainty associated with quantities and cost estimates for the complete excavation of contaminated soil. Additional soil sampling data from the area adjacent to current RSR exceedances would be useful to delineate the vertical and horizontal extent of contamination so that reliable cost estimates could be developed. It is possible that additional data would identify discrete and relatively small areas requiring

remediation, which would eliminate the need for a soil cover and the effort required to maintain the cover and enforce an ELUR.

With these limitations, the remedial options and cost estimates presented below are intended to be used as a tool for reuse/redevelopment planning for the Site.

Option 1 – Soil Cover with Off-Site Disposal and ELUR

The RSRs specify that the DEC do not apply to "inaccessible soils" provided that, if the "inaccessible soils" are located less than 15 feet bgs, an ELUR is in effect which ensures the contaminated soils will not be exposed through excavation or other means (22a-133k-2[b][3]). Contaminated soils are rendered inaccessible if they are covered by 1) at least 4 feet of clean fill, 2) at least 2 feet of clean fill beneath a 3-inch layer of bituminous concrete or concrete, or 3) beneath an existing building or other permanent structure (22a-133k-1[a][28]).

Option 1 involves the placement of 4 feet of clean fill over contaminated soil areas and implementation of an ELUR on the parcel. In certain areas of the Site, in order to achieve a 4 foot thick layer of clean soil and maintain a final ground surface that is at grade with the adjacent parcels, excavation and off-site disposal of soil would be required. To implement this option, an estimated 550 cubic yards (820 tons) of contaminated soil would be excavated from the Site for off-site disposal and an approximately 8,000 square foot soil cover would be placed at the Site. The estimated cost for this option would be $102,000. A detailed cost estimate is provided in Appendix E.

Option 2 – Bituminous Concrete/Concrete Cover with Off-Site Disposal and ELUR

Option 2 involves placement of a bituminous concrete or concrete cover over contaminated soil areas, which reduces the thickness of clean fill required to 2 feet (the subgrade material beneath the asphalt/concrete cover is included in the 2 feet of clean fill). As before, some limited excavation and off-site disposal of soils would be required to meet the finished grade to the adjacent parcels. To implement this option, an estimated 270 cubic yards (410 tons) of contaminated soil would be excavated from the Site for off-site disposal and an approximately 8,000 square foot cover would be placed at the Site. The estimated cost for this option would be $72,000. A detailed cost estimate is provided in Appendix E.

TABLES

Table 1
Summary of Soil Analytical Results - UST Excavation
Former Chromium Process Storage Parcel
Shelton, Connecticut

			Sample ID	TG-SW-1	TG-SW-2	TG-SW-3	TG-SW-4	TG-B-1	TG-B-2
			Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Sample Collection Date	9/5/2012	9/5/2012	9/5/2012	9/5/2012	9/5/2012	9/5/2012
		CT RSR Criteria							
Parameter	**Units**	**I/C DEC**	**GB PMC**						
PAHs by 8270D									
Acenaphthene	mg/kg			0.26 U	0.27 U	0.34 U	0.27 U	0.35 U	0.27 U
Fluoranthene	mg/kg	2500	56	0.2 U	0.2 U	4.4	0.21 U	0.26 U	0.2 U
Naphthalene	mg/kg	2500	56	0.33 U	0.33 U	0.43 U	0.34 U	0.43 U	0.34 U
Benzo(a)anthracene	mg/kg	7.8	1	0.2 U	0.2 U	0.49	0.21 U	0.26 U	0.2 U
Benzo(a)pyrene	mg/kg	1	1	0.26 U	0.27 U	0.75	0.27 U	0.35 U	0.27 U
Benzo(b)fluoranthene	mg/kg	7.8	1	0.2 U	0.2 U	1.8	0.21 U	0.26 U	0.2 U
Benzo(k)fluoranthene	mg/kg	78	1	0.2 U	0.2 U	0.67	0.21 U	0.26 U	0.2 U
Chrysene	mg/kg			0.2 U	0.2 U	1.7	0.21 U	0.26 U	0.2 U
Acenaphthylene	mg/kg	2500	84	0.26 U	0.27 U	0.47	0.27 U	0.35 U	0.27 U
Anthracene	mg/kg	2500	400	0.2 U	0.2 U	0.26 U	0.21 U	0.26 U	0.2 U
Benzo(ghi)perylene	mg/kg			0.26 U	0.27 U	0.76	0.27 U	0.35 U	0.27 U
Fluorene	mg/kg	2500	56	0.33 U	0.33 U	0.43 U	0.34 U	0.43 U	0.34 U
Phenanthrene	mg/kg	2500	40	0.2 U	0.2 U	4.5	0.21 U	0.26 U	0.2 U
Dibenzo(a,h)anthracene	mg/kg			0.2 U	0.2 U	0.26 U	0.21 U	0.26 U	0.2 U
Indeno(1,2,3-cd)Pyrene	mg/kg			0.26 U	0.27 U	0.86	0.27 U	0.35 U	0.27 U
Pyrene	mg/kg	2500	40	0.2 U	0.2 U	3.5	0.21 U	0.26 U	0.2 U
2-Methylnaphthalene	mg/kg			0.39 U	0.4 U	0.52 U	0.41 U	0.52 U	0.41 U
PCBs by 8082									
Aroclor 1016	mg/kg	10		0.0326 U	0.0331 U	0.0425 U	0.0335 U	0.0417 U	0.0337 U
Aroclor 1221	mg/kg	10		0.0326 U	0.0331 U	0.0425 U	0.0335 U	0.0417 U	0.0337 U
Aroclor 1232	mg/kg	10		0.0326 U	0.0331 U	0.0425 U	0.0335 U	0.0417 U	0.0337 U
Aroclor 1242	mg/kg	10		0.0326 U	0.0331 U	0.0425 U	0.0335 U	0.0417 U	0.0337 U
Aroclor 1248	mg/kg	10		0.0326 U	0.0331 U	0.0425 U	0.0335 U	0.0417 U	0.0337 U
Aroclor 1254	mg/kg	10		0.0326 U	0.0331 U	0.0425 U	0.0335 U	0.0417 U	0.0337 U
Aroclor 1260	mg/kg	10		0.0326 U	0.0331 U	0.0425 U	0.0335 U	0.0417 U	0.0337 U
Aroclor 1262	mg/kg	10		0.0326 U	0.0331 U	0.0425 U	0.0335 U	0.0417 U	0.0337 U
Aroclor 1268	mg/kg	10		0.0326 U	0.0331 U	0.0425 U	0.0335 U	0.0417 U	0.0337 U
Metals by 6010C/7471B									
Antimony, Total	mg/kg	8200		2 U	2.3	2.6 U	2 U	3	2 U
Arsenic, Total	mg/kg	10		2.2	7.5	6	5.3	8.1	5.5
Barium, Total	mg/kg	140000		34	22	40	26	33	30
Beryllium, Total	mg/kg	2		0.25	0.21	0.26	0.22	0.25 U	0.21

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Shelton, Connecticut

			Sample ID	TG-SW-1		TG-SW-2		TG-SW-3		TG-SW-4		TG-B-1		TG-B-2	
			Sample Type	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
			Sample Collection Date	9/5/2012		9/5/2012		9/5/2012		9/5/2012		9/5/2012		9/5/2012	
		CT RSR Criteria													
Parameter	**Units**	**I/C DEC**	**GB PMC**												
Cadmium, Total	mg/kg	1000		0.39	U	0.4	U	0.51	U	0.41	U	0.51	U	0.4	U
Chromium, Total	mg/kg	100*		11		8		18		16		19		15	
Copper, Total	mg/kg	76000		14		14		41		26		58		28	
Lead, Total	mg/kg	1000		3.8		6		92		7.3		6.8		6.3	
Mercury, Total	mg/kg	610		0.07	U	0.08	U	0.11	U	0.08	U	0.09	U	0.08	U
Nickel, Total	mg/kg	7500		9.6		12		21		32		50		29	
Selenium, Total	mg/kg	10000		2	U	2	U	2.6	U	2	U	2.5	U	2	U
Silver, Total	mg/kg	10000		0.39	U	0.4	U	0.51	U	0.41	U	0.51	U	0.4	U
Thallium, Total	mg/kg	160		2	U	2	U	2.6	U	2	U	2.5	U	2	U
Vanadium, Total	mg/kg	14000		20		14		21		16		21		16	
Zinc, Total	mg/kg	610000		26		21		72		54		33		48	
VOCs by 8260C															
Methylene chloride	mg/kg	760	1	0.0065	U	0.0073	U	0.0091	U	0.0075	U	0.0088	U	0.0072	U
1,1-Dichloroethane	mg/kg	1000	14	0.00098	U	0.0011	U	0.0014	U	0.0011	U	0.0013	U	0.0011	U
Chloroform	mg/kg	940	1.2	0.00098	U	0.0011	U	0.0014	U	0.0011	U	0.0013	U	0.0011	U
Carbon tetrachloride	mg/kg	44	1	0.00065	U	0.00073	U	0.00091	U	0.00075	U	0.00088	U	0.00072	U
1,2-Dichloropropane	mg/kg	84	1	0.0023	U	0.0026	U	0.0032	U	0.0026	U	0.0031	U	0.0025	U
Dibromochloromethane	mg/kg	68	0.1	0.00065	U	0.00073	U	0.00091	U	0.00075	U	0.00088	U	0.00072	U
1,1,2-Trichloroethane	mg/kg	100	1	0.00098	U	0.0011	U	0.0014	U	0.0011	U	0.0013	U	0.0011	U
Tetrachloroethene	mg/kg	110	1	0.00065	U	0.00073	U	0.00091	U	0.00075	U	0.00088	U	0.00072	U
Chlorobenzene	mg/kg	1000	20	0.00065	U	0.00073	U	0.00091	U	0.00075	U	0.00088	U	0.00072	U
Trichlorofluoromethane	mg/kg			0.0033	U	0.0036	U	0.0046	U	0.0037	U	0.0044	U	0.0036	U
1,2-Dichloroethane	mg/kg	63	0.2	0.00065	U	0.00073	U	0.00091	U	0.00075	U	0.00088	U	0.00072	U
1,1,1-Trichloroethane	mg/kg	1000	40	0.00065	U	0.00073	U	0.00091	U	0.00075	U	0.00088	U	0.00072	U
Bromodichloromethane	mg/kg			0.00065	U	0.00073	U	0.00091	U	0.00075	U	0.00088	U	0.00072	U
trans-1,3-Dichloropropene	mg/kg	32	0.1	0.00065	U	0.00073	U	0.00091	U	0.00075	U	0.00088	U	0.00072	U
cis-1,3-Dichloropropene	mg/kg	32	0.1	0.00065	U	0.00073	U	0.00091	U	0.00075	U	0.00088	U	0.00072	U
1,1-Dichloropropene	mg/kg			0.0033	U	0.0036	U	0.0046	U	0.0037	U	0.0044	U	0.0036	U
Bromoform	mg/kg	720	0.8	0.0026	U	0.0029	U	0.0036	U	0.003	U	0.0035	U	0.0029	U
1,1,2,2-Tetrachloroethane	mg/kg	29	0.1	0.00065	U	0.00073	U	0.00091	U	0.00075	U	0.00088	U	0.00072	U
Benzene	mg/kg	200	0.2	0.00065	U	0.00073	U	0.00091	U	0.00075	U	0.00088	U	0.00072	U
Toluene	mg/kg	1000	67	0.00098	U	0.0011	U	0.0014	U	0.0011	U	0.0013	U	0.0011	U
Ethylbenzene	mg/kg	1000	10.1	0.00065	U	0.00073	U	0.00091	U	0.00075	U	0.00088	U	0.00072	U

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Shelton, Connecticut

			Sample ID	TG-SW-1	TG-SW-2	TG-SW-3	TG-SW-4	TG-B-1	TG-B-2
			Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Sample Collection Date	9/5/2012	9/5/2012	9/5/2012	9/5/2012	9/5/2012	9/5/2012
		CT RSR Criteria							
Parameter	**Units**	**I/C DEC**	**GB PMC**						
Chloromethane	mg/kg			0.0033 U	0.0036 U	0.0046 U	0.0037 U	0.0044 U	0.0036 U
Bromomethane	mg/kg			0.0013 U	0.0015 U	0.0018 U	0.0015 U	0.0018 U	0.0014 U
Vinyl chloride	mg/kg	3	0.4	0.0013 U	0.0015 U	0.0018 U	0.0015 U	0.0018 U	0.0014 U
Chloroethane	mg/kg			0.0013 U	0.0015 U	0.0018 U	0.0015 U	0.0018 U	0.0014 U
1,1-Dichloroethene	mg/kg	9.5	1.4	0.00065 U	0.00073 U	0.00091 U	0.00075 U	0.00088 U	0.00072 U
trans-1,2-Dichloroethene	mg/kg	1000	20	0.00098 U	0.0011 U	0.0014 U	0.0011 U	0.0013 U	0.0011 U
Trichloroethene	mg/kg	520	1	0.00065 U	0.00073 U	0.00091 U	0.00075 U	0.00088 U	0.00072 U
1,2-Dichlorobenzene	mg/kg	1000	3.1	0.0033 U	0.0036 U	0.0046 U	0.0037 U	0.0044 U	0.0036 U
1,3-Dichlorobenzene	mg/kg	1000	120	0.0033 U	0.0036 U	0.0046 U	0.0037 U	0.0044 U	0.0036 U
1,4-Dichlorobenzene	mg/kg	240	15	0.0033 U	0.0036 U	0.0046 U	0.0037 U	0.0044 U	0.0036 U
Methyl tert butyl ether	mg/kg	1000	20	0.0013 U	0.0015 U	0.0018 U	0.0015 U	0.0018 U	0.0014 U
p/m-Xylene	mg/kg	1000	19.5	0.0013 U	0.0015 U	0.0018 U	0.0015 U	0.0018 U	0.0014 U
o-Xylene	mg/kg	1000	19.5	0.0013 U	0.0015 U	0.0018 U	0.0015 U	0.0018 U	0.0014 U
XYLENE (TOTAL)	mg/kg	1000	19.5	0.0013 U	0.0015 U	0.0018 U	0.0015 U	0.0018 U	0.0014 U
cis-1,2-Dichloroethene	mg/kg	1000	14	0.00065 U	0.00073 U	0.00091 U	0.00075 U	0.00088 U	0.00072 U
Dibromomethane	mg/kg			0.0065 U	0.0073 U	0.0091 U	0.0075 U	0.0088 U	0.0072 U
1,2,3-Trichloropropane	mg/kg			0.0065 U	0.0073 U	0.0091 U	0.0075 U	0.0088 U	0.0072 U
Styrene	mg/kg	1000	20	0.0013 U	0.0015 U	0.0018 U	0.0015 U	0.0018 U	0.0014 U
Dichlorodifluoromethane	mg/kg			0.0065 U	0.0073 U	0.0091 U	0.0075 U	0.0088 U	0.0072 U
Acetone	mg/kg	1000	140	0.024 U	0.026 U	0.033 U	0.027 U	0.032 U	0.026 U
Carbon disulfide	mg/kg			0.033 U	0.036 U	0.046 U	0.037 U	0.044 U	0.036 U
2-Butanone	mg/kg	1000	80	0.0065 U	0.0073 U	0.0091 U	0.0075 U	0.0088 U	0.0072 U
4-Methyl-2-pentanone	mg/kg	1000	14	0.0065 U	0.0073 U	0.0091 U	0.0075 U	0.0088 U	0.0072 U
2-Hexanone	mg/kg			0.0065 U	0.0073 U	0.0091 U	0.0075 U	0.0088 U	0.0072 U
Acrylonitrile	mg/kg	11	0.1	0.0026 U	0.0029 U	0.0036 U	0.003 U	0.0035 U	0.0029 U
Tetrahydrofuran	mg/kg			0.013 U	0.015 U	0.018 U	0.015 U	0.018 U	0.014 U
2,2-Dichloropropane	mg/kg			0.0033 U	0.0036 U	0.0046 U	0.0037 U	0.0044 U	0.0036 U
1,2-Dibromoethane	mg/kg	0.067	0.1	0.0026 U	0.0029 U	0.0036 U	0.003 U	0.0035 U	0.0029 U
1,3-Dichloropropane	mg/kg			0.0033 U	0.0036 U	0.0046 U	0.0037 U	0.0044 U	0.0036 U
1,1,1,2-Tetrachloroethane	mg/kg	220	0.2	0.00065 U	0.00073 U	0.00091 U	0.00075 U	0.00088 U	0.00072 U
Bromobenzene	mg/kg			0.0033 U	0.0036 U	0.0046 U	0.0037 U	0.0044 U	0.0036 U
n-Butylbenzene	mg/kg			0.00065 U	0.00073 U	0.00091 U	0.00075 U	0.00088 U	0.00072 U
sec-Butylbenzene	mg/kg			0.00065 U	0.00073 U	0.00091 U	0.00075 U	0.00088 U	0.00072 U

Table 1
Summary of Soil Analytical Results - UST Excavation
Former Chromium Process Storage Parcel
Shelton, Connecticut

			Sample ID	TG-SW-1	TG-SW-2	TG-SW-3	TG-SW-4	TG-B-1	TG-B-2
			Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Sample Collection Date	9/5/2012	9/5/2012	9/5/2012	9/5/2012	9/5/2012	9/5/2012
		CT RSR Criteria							
Parameter	**Units**	**I/C DEC**	**GB PMC**						
tert-Butylbenzene	mg/kg			0.0033 U	0.0036 U	0.0046 U	0.0037 U	0.0044 U	0.0036 U
o-Chlorotoluene	mg/kg			0.0033 U	0.0036 U	0.0046 U	0.0037 U	0.0044 U	0.0036 U
p-Chlorotoluene	mg/kg			0.0033 U	0.0036 U	0.0046 U	0.0037 U	0.0044 U	0.0036 U
1,2-Dibromo-3-chloropropane	mg/kg			0.0033 U	0.0036 U	0.0046 U	0.0037 U	0.0044 U	0.0036 U
Hexachlorobutadiene	mg/kg			0.0033 U	0.0036 U	0.0046 U	0.0037 U	0.0044 U	0.0036 U
Isopropylbenzene	mg/kg			0.00065 U	0.00073 U	0.00091 U	0.00075 U	0.00088 U	0.00072 U
p-Isopropyltoluene	mg/kg			0.00065 U	0.00073 U	0.00091 U	0.00075 U	0.00088 U	0.00072 U
Naphthalene	mg/kg	2500	56	0.0033 U	0.0036 U	0.0046 U	0.0037 U	0.0044 U	0.0036 U
n-Propylbenzene	mg/kg			0.00065 U	0.00073 U	0.00091 U	0.00075 U	0.00088 U	0.00072 U
1,2,3-Trichlorobenzene	mg/kg			0.0033 U	0.0036 U	0.0046 U	0.0037 U	0.0044 U	0.0036 U
1,2,4-Trichlorobenzene	mg/kg			0.0033 U	0.0036 U	0.0046 U	0.0037 U	0.0044 U	0.0036 U
1,3,5-Trimethylbenzene	mg/kg			0.0033 U	0.0036 U	0.0046 U	0.0037 U	0.0044 U	0.0036 U
1,2,4-Trimethylbenzene	mg/kg			0.0033 U	0.0036 U	0.0046 U	0.0037 U	0.0044 U	0.0036 U
trans-1,4-Dichloro-2-butene	mg/kg			0.0033 U	0.0036 U	0.0046 U	0.0037 U	0.0044 U	0.0036 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	mg/kg			0.0026 U	0.0029 U	0.0036 U	0.003 U	0.0035 U	0.0029 U
ETPH by CTDEEP Method									
ETPH-CT	mg/kg	2500	2500	13 U	14 U	53	23	17 U	13

Notes:

1. CT RSR = Connecticut Remediation Standard Regulations
2. I/C DEC = Industrial/Commercial Direct Exposure Criteria
3. GB PMC = GB Pollutant Mobility Criteria
4. mg/kg = milligram per kilogram dry weight
5. U = Not detected above laboratory reporting limit
6. Grey shading = detected
7. Black shading = detected above CT RSR criterion
8. Total chromium data compared against criterion for hexavalent chromium

Table 2
Summary of Soil Analytical Results - Soil Borings
Former Chromium Process Storage Parcel
Shelton, Connecticut

			Sample ID	B-1 0-2	B-1 13-16	B-2 0-2	B-2 9-11	B-3 0-2	B-3 14-16	B-4 16-19'	B5 0-2'	B5 6-9'
			Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Sample Collection Date	9/6/2012	9/6/2012	9/6/2012	9/6/2012	9/6/2012	9/6/2012	9/6/2012	9/6/2012	9/6/2012
			Sample Depth (ft bgs)	0-2	13-16	0-2	9-11	0-2	14-16	16-19	0-2	6-9
		CT RSR Criteria										
	Units	**IC DEC**	**GB PMC**									
PAHs by 8270D												
Acenaphthene	mg/kg			0.28 U	0.3 U	0.3 U	0.34 U	0.27 U	0.28 U	0.29 U	1.4 U	0.32 U
Fluoranthene	mg/kg	2500	56	2.9	0.22 U	0.48	0.25 U	0.24	0.21 U	0.22 U	1.5	0.24 U
Naphthalene	mg/kg	2500	56	0.71	0.37 U	0.37 U	0.42 U	0.34 U	0.35 U	0.37 U	1.7 U	0.4 U
Benzo(a)anthracene	mg/kg	7.8	1	1.2	0.22 U	0.22 U	0.25 U	0.2 U	0.21 U	0.22 U	***1*** U	0.24 U
Benzo(a)pyrene	mg/kg	1	1	1.2	0.3 U	0.3 U	0.34 U	0.27 U	0.28 U	0.29 U	***1.4*** U	0.32 U
Benzo(b)fluoranthene	mg/kg	7.8	1	1.9	0.22 U	0.29	0.25 U	0.2 U	0.21 U	0.22 U	***1*** U	0.24 U
Benzo(k)fluoranthene	mg/kg	78	1	0.64	0.22 U	0.22 U	0.25 U	0.2 U	0.21 U	0.22 U	***1*** U	0.24 U
Chrysene	mg/kg			1.6	0.22 U	0.29	0.25 U	0.2 U	0.21 U	0.22 U	1 U	0.24 U
Acenaphthylene	mg/kg	2500	84	0.73	0.3 U	0.3 U	0.34 U	0.27 U	0.28 U	0.29 U	1.4 U	0.32 U
Anthracene	mg/kg	2500	400	0.44	0.22 U	0.22 U	0.25 U	0.2 U	0.21 U	0.22 U	1 U	0.24 U
Benzo(ghi)perylene	mg/kg			0.88	0.3 U	0.3 U	0.34 U	0.27 U	0.28 U	0.29 U	1.4 U	0.32 U
Fluorene	mg/kg	2500	56	0.35 U	0.37 U	0.37 U	0.42 U	0.34 U	0.35 U	0.37 U	1.7 U	0.4 U
Phenanthrene	mg/kg	2500	40	1.5	0.22 U	0.4	0.25 U	0.2 U	0.21 U	0.22 U	1 U	0.24 U
Dibenzo(a,h)anthracene	mg/kg			0.22	0.22 U	0.22 U	0.25 U	0.2 U	0.21 U	0.22 U	1 U	0.24 U
Indeno(1,2,3-cd)Pyrene	mg/kg			0.96	0.3 U	0.3 U	0.34 U	0.27 U	0.28 U	0.29 U	1.4 U	0.32 U
Pyrene	mg/kg	2500	40	2.7	0.22 U	0.44	0.25 U	0.22	0.21 U	0.22 U	1.7	0.24 U
2-Methylnaphthalene	mg/kg			0.98	0.44 U	0.44 U	0.5 U	0.41 U	0.42 U	0.44 U	2.1 U	0.49 U
PCBs by 8082												
Aroclor 1016	mg/kg	10		0.035 U	0.0367 U	0.0378 U	0.0423 U	0.0338 U	0.0362 U	0.0362 U	0.0334 U	0.0416 U
Aroclor 1221	mg/kg	10		0.035 U	0.0367 U	0.0378 U	0.0423 U	0.0338 U	0.0362 U	0.0362 U	0.0334 U	0.0416 U
Aroclor 1232	mg/kg	10		0.035 U	0.0367 U	0.0378 U	0.0423 U	0.0338 U	0.0362 U	0.0362 U	0.0334 U	0.0416 U
Aroclor 1242	mg/kg	10		0.035 U	0.0367 U	0.0378 U	0.0423 U	0.0338 U	0.0362 U	0.0362 U	0.0334 U	0.0416 U
Aroclor 1248	mg/kg	10		0.035 U	0.0367 U	0.0378 U	0.0423 U	0.0338 U	0.0362 U	0.0362 U	0.0334 U	0.0416 U
Aroclor 1254	mg/kg	10		0.035 U	0.0367 U	0.0378 U	0.0423 U	0.0338 U	0.0362 U	0.0362 U	0.0334 U	0.0416 U
Aroclor 1260	mg/kg	10		0.035 U	0.0367 U	0.0378 U	0.0423 U	0.0338 U	0.0362 U	0.0362 U	0.0334 U	0.0416 U
Aroclor 1262	mg/kg	10		0.035 U	0.0367 U	0.0378 U	0.0423 U	0.0338 U	0.0362 U	0.0362 U	0.0334 U	0.0416 U
Aroclor 1268	mg/kg	10		0.035 U	0.0367 U	0.0378 U	0.0423 U	0.0338 U	0.0362 U	0.0362 U	0.0334 U	0.0416 U
Metals by 6010C/7471B												
Antimony, Total	mg/kg	8200		23	7.2	2.8	2.5 U	2 U	2.2 U	2.1 U	3.2	2.4 U
Arsenic, Total	mg/kg	10		7	12	5.3	3.5	4.5	3.6	3	6.2	5.3
Barium, Total	mg/kg	140000		200	69	110	53	44	43	21	78	44
Beryllium, Total	mg/kg	2		1	0.44 U	0.5	0.4	0.27	0.3	0.3	0.36	0.46
Cadmium, Total	mg/kg	1000		2.2	0.88 U	0.56	0.49 U	0.4 U	0.43 U	0.43 U	0.59	0.48 U
Chromium, Total	mg/kg	100*		93	41	32	15	49	20	10	33	31

Table 2
Summary of Soil Analytical Results - Soil Borings
Former Chromium Process Storage Parcel
Shelton, Connecticut

			Sample ID	B-1 0-2	B-1 13-16	B-2 0-2	B-2 9-11	B-3 0-2	B-3 14-16	B-4 16-19'	B5 0-2'	B5 6-9'
			Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Sample Collection Date	9/6/2012	9/6/2012	9/6/2012	9/6/2012	9/6/2012	9/6/2012	9/6/2012	9/6/2012	9/6/2012
			Sample Depth (ft bgs)	0-2	13-16	0-2	9-11	0-2	14-16	16-19	0-2	6-9
		CT RSR Criteria										
	Units	**IC DEC**	**GB PMC**									
Metals by 6010C/7471B (cont.)												
Copper, Total	mg/kg	76000		360	220	490	130	83	29	13	84	32
Lead, Total	mg/kg	1000		550	83	76	9.5	32	13	4.6	36	7.7
Mercury, Total	mg/kg	610		0.22	0.07 U	0.08 U	0.09 U	0.08 U	0.08 U	0.08 U	0.18	0.08 U
Nickel, Total	mg/kg	7500		54	24	49	13	19	12	16	33	20
Selenium, Total	mg/kg	10000		2.1 U	4.4 U	2.3 U	2.5 U	2 U	2.2 U	2.1 U	2 U	2.4 U
Silver, Total	mg/kg	10000		8.2	0.88 U	0.46 U	0.49 U	0.4 U	0.43 U	0.43 U	0.4 U	0.48 U
Thallium, Total	mg/kg	160		2.1 U	4.4 U	2.3 U	2.5 U	2 U	2.2 U	2.1 U	2 U	2.4 U
Vanadium, Total	mg/kg	14000		64	36	39	22	35	25	17	38	26
Zinc, Total	mg/kg	610000		280	88	170	48	93	38	34	110	47
VOCs by 8260C												
Methylene chloride	mg/kg	760	1	***1.9*** U	***1.1*** U	***1.1*** U	0.0068 U	0.66 U	0.0073 U	0.0064 U	0.85 U	0.0078 U
1,1-Dichloroethane	mg/kg	1000	14	0.28 U	0.42	0.16 U	0.001 U	0.099 U	0.0011 U	0.00096 U	0.13 U	0.0012 U
Chloroform	mg/kg	940	1.2	16	2.7	0.16 U	0.001 U	0.099 U	0.0011 U	0.00096 U	0.13 U	0.0012 U
Carbon tetrachloride	mg/kg	44	1	0.19 U	0.11 U	0.11 U	0.00068 U	0.066 U	0.00073 U	0.00064 U	0.085 U	0.00078 U
1,2-Dichloropropane	mg/kg	84	1	0.65 U	0.37 U	0.38 U	0.0024 U	0.23 U	0.0026 U	0.0022 U	0.3 U	0.0027 U
Dibromochloromethane	mg/kg	68	0.1	***0.19*** U	***0.11*** U	***0.11*** U	0.00068 U	0.066 U	0.00073 U	0.00064 U	0.085 U	0.00078 U
1,1,2-Trichloroethane	mg/kg	100	1	0.28 U	0.16 U	0.16 U	0.001 U	0.099 U	0.0011 U	0.00096 U	0.13 U	0.0012 U
Tetrachloroethene	mg/kg	110	1	1.4	1	1.9	0.00085	0.55	0.00073 U	0.00064 U	0.17	0.00078 U
Chlorobenzene	mg/kg	1000	20	0.19 U	0.11 U	0.11 U	0.00068 U	0.066 U	0.00073 U	0.00064 U	0.085 U	0.00078 U
Trichlorofluoromethane	mg/kg			0.94 U	0.54 U	0.55 U	0.0034 U	0.33 U	0.0036 U	0.0032 U	0.42 U	0.0039 U
1,2-Dichloroethane	mg/kg	63	0.2	0.19 U	0.11 U	0.11 U	0.00068 U	0.066 U	0.00073 U	0.00064 U	0.085 U	0.00078 U
1,1,1-Trichloroethane	mg/kg	1000	40	0.31	0.88	0.12	0.00068 U	0.13	0.00073 U	0.00064 U	0.085 U	0.00078 U
Bromodichloromethane	mg/kg			0.19 U	0.11 U	0.11 U	0.00068 U	0.066 U	0.00073 U	0.00064 U	0.085 U	0.00078 U
trans-1,3-Dichloropropene	mg/kg	32	0.1	***0.19*** U	***0.11*** U	***0.11*** U	0.00068 U	0.066 U	0.00073 U	0.00064 U	0.085 U	0.00078 U
cis-1,3-Dichloropropene	mg/kg	32	0.1	***0.19*** U	***0.11*** U	***0.11*** U	0.00068 U	0.066 U	0.00073 U	0.00064 U	0.085 U	0.00078 U
1,1-Dichloropropene	mg/kg			0.94 U	0.54 U	0.55 U	0.0034 U	0.33 U	0.0036 U	0.0032 U	0.42 U	0.0039 U
Bromoform	mg/kg	720	0.8	0.75 U	0.43 U	0.44 U	0.0027 U	0.26 U	0.0029 U	0.0026 U	0.34 U	0.0031 U
1,1,2,2-Tetrachloroethane	mg/kg	29	0.1	***0.19*** U	***0.11*** U	***0.11*** U	0.00068 U	0.066 U	0.00073 U	0.00064 U	0.085 U	0.00078 U
Benzene	mg/kg	200	0.2	0.19 U	0.11 U	0.11 U	0.00068 U	0.066 U	0.00073 U	0.00064 U	0.19	0.00078 U
Toluene	mg/kg	1000	67	0.28 U	0.16 U	0.16 U	0.001 U	0.099 U	0.0011 U	0.00096 U	0.17	0.0012 U
Ethylbenzene	mg/kg	1000	10.1	0.19 U	0.11 U	0.11 U	0.00068 U	0.066 U	0.00073 U	0.00064 U	0.085 U	0.00078 U
Chloromethane	mg/kg			0.94 U	0.54 U	0.55 U	0.0034 U	0.33 U	0.0036 U	0.0032 U	0.42 U	0.0039 U
Bromomethane	mg/kg			0.37 U	0.21 U	0.22 U	0.0014 U	0.13 U	0.0015 U	0.0013 U	0.17 U	0.0016 U
Vinyl chloride	mg/kg	3	0.4	0.37 U	0.21 U	0.22 U	0.0014 U	0.13 U	0.0015 U	0.0013 U	0.17 U	0.0016 U

Table 2
Summary of Soil Analytical Results - Soil Borings
Former Chromium Process Storage Parcel
Shelton, Connecticut

			Sample ID	B-1 0-2	B-1 13-16	B-2 0-2	B-2 9-11	B-3 0-2	B-3 14-16	B-4 16-19'	B5 0-2'	B5 6-9'
			Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Sample Collection Date	9/6/2012	9/6/2012	9/6/2012	9/6/2012	9/6/2012	9/6/2012	9/6/2012	9/6/2012	9/6/2012
			Sample Depth (ft bgs)	0-2	13-16	0-2	9-11	0-2	14-16	16-19	0-2	6-9
		CT RSR Criteria										
	Units	**IC DEC**	**GB PMC**									
VOCs by 8260C (cont.)												
Chloroethane	mg/kg			0.37 U	0.21 U	0.22 U	0.0014 U	0.13 U	0.0015 U	0.0013 U	0.17 U	0.0016 U
1,1-Dichloroethene	mg/kg	9.5	1.4	0.19 U	0.11 U	0.11 U	0.00068 U	0.066 U	0.00073 U	0.00064 U	0.085 U	0.00078 U
trans-1,2-Dichloroethene	mg/kg	1000	20	0.28 U	0.16 U	0.16 U	0.001 U	0.099 U	0.0011 U	0.00096 U	0.13 U	0.0012 U
Trichloroethene	mg/kg	520	1	25	16	7.2	0.002	1.6	0.005	0.00097	1.6	0.0014
1,2-Dichlorobenzene	mg/kg	1000	3.1	0.94 U	0.54 U	0.55 U	0.0034 U	0.99	0.0036 U	0.0032 U	0.42 U	0.0039 U
1,3-Dichlorobenzene	mg/kg	1000	120	0.94 U	0.54 U	0.55 U	0.0034 U	0.33 U	0.0036 U	0.0032 U	0.42 U	0.0039 U
1,4-Dichlorobenzene	mg/kg	240	15	0.94 U	0.54 U	0.55 U	0.0034 U	0.33 U	0.0036 U	0.0032 U	0.42 U	0.0039 U
Methyl tert butyl ether	mg/kg	1000	20	0.37 U	0.21 U	0.22 U	0.0014 U	0.13 U	0.0015 U	0.0013 U	0.17 U	0.0016 U
p/m-Xylene	mg/kg	1000	19.5	0.37 U	0.21 U	0.22 U	0.0027	0.13 U	0.0015 U	0.0013 U	0.17 U	0.0016 U
o-Xylene	mg/kg	1000	19.5	0.37 U	0.21 U	0.22 U	0.0038	0.13 U	0.0015 U	0.0013 U	0.17 U	0.0016 U
XYLENE (TOTAL)	mg/kg	1000	19.5	0.37 U	0.21 U	0.22 U	0.0065	0.13 U	0.0015 U	0.0013 U	0.17 U	0.0016 U
cis-1,2-Dichloroethene	mg/kg	1000	14	0.19 U	0.47	0.23	0.00068 U	0.066 U	0.00073 U	0.00064 U	0.085 U	0.00078 U
Dibromomethane	mg/kg			1.9 U	1.1 U	1.1 U	0.0068 U	0.66 U	0.0073 U	0.0064 U	0.85 U	0.0078 U
1,2,3-Trichloropropane	mg/kg			1.9 U	1.1 U	1.1 U	0.0068 U	0.66 U	0.0073 U	0.0064 U	0.85 U	0.0078 U
Styrene	mg/kg	1000	20	0.37 U	0.21 U	0.22 U	0.0014 U	0.13 U	0.0015 U	0.0013 U	0.17 U	0.0016 U
Dichlorodifluoromethane	mg/kg			1.9 U	1.1 U	1.1 U	0.0068 U	0.66 U	0.0073 U	0.0064 U	0.85 U	0.0078 U
Acetone	mg/kg	1000	140	6.7 U	3.8 U	4 U	0.036	2.4 U	0.026 U	0.023 U	3 U	0.028 U
Carbon disulfide	mg/kg			9.4 U	5.4 U	5.5 U	0.034 U	3.3 U	0.036 U	0.032 U	4.2 U	0.039 U
2-Butanone	mg/kg	1000	80	1.9 U	1.1 U	1.1 U	0.0068 U	0.66 U	0.0073 U	0.0064 U	0.85 U	0.0078 U
4-Methyl-2-pentanone	mg/kg	1000	14	1.9 U	1.1 U	1.1 U	0.0068 U	0.66 U	0.0073 U	0.0064 U	0.85 U	0.0078 U
2-Hexanone	mg/kg			1.9 U	1.1 U	1.1 U	0.0068 U	0.66 U	0.0073 U	0.0064 U	0.85 U	0.0078 U
Acrylonitrile	mg/kg	11	0.1	0.75 U	0.43 U	***0.44*** U	0.0027 U	***0.26*** U	0.0029 U	0.0026 U	***0.34*** U	0.0031 U
Tetrahydrofuran	mg/kg			3.7 U	2.1 U	2.2 U	0.014 U	1.3 U	0.015 U	0.013 U	1.7 U	0.016 U
2,2-Dichloropropane	mg/kg			0.94 U	0.54 U	0.55 U	0.0034 U	0.33 U	0.0036 U	0.0032 U	0.42 U	0.0039 U
1,2-Dibromoethane	mg/kg	0.067	0.1	0.75 U	0.43 U	***0.44*** U	0.0027 U	***0.26*** U	0.0029 U	0.0026 U	***0.34*** U	0.0031 U
1,3-Dichloropropane	mg/kg			0.94 U	0.54 U	0.55 U	0.0034 U	0.33 U	0.0036 U	0.0032 U	0.42 U	0.0039 U
1,1,1,2-Tetrachloroethane	mg/kg	220	0.2	0.19 U	0.11 U	0.11 U	0.00068 U	0.066 U	0.00073 U	0.00064 U	0.085 U	0.00078 U
Bromobenzene	mg/kg			0.94 U	0.54 U	0.55 U	0.0034 U	0.33 U	0.0036 U	0.0032 U	0.42 U	0.0039 U
n-Butylbenzene	mg/kg			0.19 U	0.11 U	0.11 U	0.0014	0.066 U	0.00073 U	0.00064 U	0.085 U	0.00078 U
sec-Butylbenzene	mg/kg			0.19 U	0.11 U	0.11 U	0.0017	0.066 U	0.00073 U	0.00064 U	0.085 U	0.00078 U
tert-Butylbenzene	mg/kg			0.94 U	0.54 U	0.55 U	0.0034 U	0.33 U	0.0036 U	0.0032 U	0.42 U	0.0039 U
o-Chlorotoluene	mg/kg			0.94 U	0.54 U	0.55 U	0.0034 U	0.33 U	0.0036 U	0.0032 U	0.42 U	0.0039 U
p-Chlorotoluene	mg/kg			0.94 U	0.54 U	0.55 U	0.0034 U	0.33 U	0.0036 U	0.0032 U	0.42 U	0.0039 U
1,2-Dibromo-3-chloropropane	mg/kg			0.94 U	0.54 U	0.55 U	0.0034 U	0.33 U	0.0036 U	0.0032 U	0.42 U	0.0039 U

Table 2
Summary of Soil Analytical Results - Soil Borings
Former Chromium Process Storage Parcel
Shelton, Connecticut

			Sample ID	B-1 0-2	B-1 13-16	B-2 0-2	B-2 9-11	B-3 0-2	B-3 14-16	B-4 16-19'	B5 0-2'	B5 6-9'
			Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Sample Collection Date	9/6/2012	9/6/2012	9/6/2012	9/6/2012	9/6/2012	9/6/2012	9/6/2012	9/6/2012	9/6/2012
			Sample Depth (ft bgs)	0-2	13-16	0-2	9-11	0-2	14-16	16-19	0-2	6-9
		CT RSR Criteria										
	Units	**IC DEC**	**GB PMC**									
VOCs by 8260C (cont.)												
Hexachlorobutadiene	mg/kg			0.94 U	0.54 U	0.55 U	0.0034 U	0.33 U	0.0036 U	0.0032 U	0.42 U	0.0039 U
Isopropylbenzene	mg/kg			0.19 U	0.11 U	0.11 U	0.0017	0.066 U	0.00073 U	0.00064 U	0.085 U	0.00078 U
p-Isopropyltoluene	mg/kg			0.19 U	0.11 U	0.11 U	0.0012	0.18	0.00073 U	0.00064 U	0.085 U	0.00078 U
Naphthalene	mg/kg	2500	56	0.94 U	0.54 U	0.55 U	0.0049	0.33 U	0.0036 U	0.0032 U	0.42 U	0.0039 U
n-Propylbenzene	mg/kg			0.19 U	0.11 U	0.11 U	0.0014	0.066 U	0.00073 U	0.00064 U	0.085 U	0.00078 U
1,2,3-Trichlorobenzene	mg/kg			0.94 U	0.54 U	0.55 U	0.0034 U	0.33 U	0.0036 U	0.0032 U	0.42 U	0.0039 U
1,2,4-Trichlorobenzene	mg/kg			0.94 U	0.54 U	0.55 U	0.0034 U	0.33 U	0.0036 U	0.0032 U	0.42 U	0.0039 U
1,3,5-Trimethylbenzene	mg/kg			0.94 U	0.54 U	0.55 U	0.0045	0.33 U	0.0036 U	0.0032 U	0.42 U	0.0039 U
1,2,4-Trimethylbenzene	mg/kg			0.94 U	0.54 U	0.55 U	0.013	0.33 U	0.0036 U	0.0032 U	0.42 U	0.0039 U
trans-1,4-Dichloro-2-butene	mg/kg			0.94 U	0.54 U	0.55 U	0.0034 U	0.33 U	0.0036 U	0.0032 U	0.42 U	0.0039 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	mg/kg			0.75 U	0.43 U	0.44 U	0.0027 U	0.26 U	0.0029 U	0.0026 U	0.34 U	0.0031 U
ETPH by CTDEEP Method												
ETPH-CT	mg/kg	2500	2500	250	260	2500	97	88	18	15 U	140	17 U

Notes:

1. CT RSR = Connecticut Remediation Standard Regulations
2. I/C DEC = Industrial/Commercial Direct Exposure Criteria
3. GB PMC = GB Pollutant Mobility Criteria
4. mg/kg = milligram per kilogram dry weight
5. U = Not detected above laboratory reporting limit
6. Grey shading = detected
7. Black shading = detected above CT RSR criterion
8. Bold italic results = detection limit above CR RSR criterion
9. Total chromium data compared against criterion for hexavalent chromium

Table 2
Summary of Soil Analytical Results - Soil Borings
Former Chromium Process Storage Parcel
Shelton, Connecticut

			Sample ID	B6 0-2'		B6 9-12'		DUP-1	
			Sample Type	SOIL		SOIL		SOIL	
			Sample Collection Date	9/6/2012		9/6/2012		9/7/2012	
			Sample Depth (ft bgs)	0-2		9-12		0-2	
		CT RSR Criteria							
	Units	**IC DEC**	**GB PMC**						
PAHs by 8270D									
Acenaphthene	mg/kg			1.4	U	0.29	U	1.4	U
Fluoranthene	mg/kg	2500	56	15		0.22	U	12	
Naphthalene	mg/kg	2500	56	1.7	U	0.36	U	1.7	U
Benzo(a)anthracene	mg/kg	7.8	1	8.8		0.22	U	6.7	
Benzo(a)pyrene	mg/kg	1	1	8.5		0.29	U	6.7	
Benzo(b)fluoranthene	mg/kg	7.8	1	4.6		0.22	U	3.6	
Benzo(k)fluoranthene	mg/kg	78	1	4.8		0.22	U	4.1	
Chrysene	mg/kg			7.6		0.22	U	5.8	
Acenaphthylene	mg/kg	2500	84	2.5		0.29	U	2	
Anthracene	mg/kg	2500	400	3.9		0.22	U	3	
Benzo(ghi)perylene	mg/kg			4.8		0.29	U	3.4	
Fluorene	mg/kg	2500	56	1.7	U	0.36	U	1.7	U
Phenanthrene	mg/kg	2500	40	14		0.22	U	12	
Dibenzo(a,h)anthracene	mg/kg			1.1		0.22	U	1	U
Indeno(1,2,3-cd)Pyrene	mg/kg			3.4		0.29	U	2.7	
Pyrene	mg/kg	2500	40	31		0.22	U	24	
2-Methylnaphthalene	mg/kg			2	U	0.44	U	2.1	U
PCBs by 8082									
Aroclor 1016	mg/kg	10		0.0342	U	0.0361	U	0.0341	U
Aroclor 1221	mg/kg	10		0.0342	U	0.0361	U	0.0341	U
Aroclor 1232	mg/kg	10		0.0342	U	0.0361	U	0.0341	U
Aroclor 1242	mg/kg	10		0.0342	U	0.0361	U	0.0341	U
Aroclor 1248	mg/kg	10		0.0342	U	0.0361	U	0.0341	U
Aroclor 1254	mg/kg	10		0.0342	U	0.0361	U	0.0341	U
Aroclor 1260	mg/kg	10		0.0342	U	0.0361	U	0.0341	U
Aroclor 1262	mg/kg	10		0.0342	U	0.0361	U	0.0341	U
Aroclor 1268	mg/kg	10		0.0342	U	0.0361	U	0.0341	U
Metals by 6010C/7471B									
Antimony, Total	mg/kg	8200		4.8		2.1	U	3.4	
Arsenic, Total	mg/kg	10		7		4.3		4	
Barium, Total	mg/kg	140000		65		36		39	
Beryllium, Total	mg/kg	2		0.34		0.33		0.25	
Cadmium, Total	mg/kg	1000		0.82		0.42	U	0.53	
Chromium, Total	mg/kg	100*		110		38		52	

Table 2
Summary of Soil Analytical Results - Soil Borings
Former Chromium Process Storage Parcel
Shelton, Connecticut

			Sample ID	B6 0-2'		B6 9-12'		DUP-1	
			Sample Type	SOIL		SOIL		SOIL	
			Sample Collection Date	9/6/2012		9/6/2012		9/7/2012	
			Sample Depth (ft bgs)	0-2		9-12		0-2	
		CT RSR Criteria							
	Units	**IC DEC**	**GB PMC**						
Metals by 6010C/7471B (cont.)									
Copper, Total	mg/kg	76000		120		23		82	
Lead, Total	mg/kg	1000		140		6.4		90	
Mercury, Total	mg/kg	610		0.29		0.07	U	0.27	
Nickel, Total	mg/kg	7500		88		33		58	
Selenium, Total	mg/kg	10000		2	U	2.1	U	2	U
Silver, Total	mg/kg	10000		0.41	U	0.42	U	0.4	U
Thallium, Total	mg/kg	160		2	U	2.1	U	2	U
Vanadium, Total	mg/kg	14000		29		22		20	
Zinc, Total	mg/kg	610000		140		37		98	
VOCs by 8260C									
Methylene chloride	mg/kg	760	1	0.0076	U	0.0068	U	0.0067	U
1,1-Dichloroethane	mg/kg	1000	14	0.0011	U	0.001	U	0.001	U
Chloroform	mg/kg	940	1.2	0.0011	U	0.001	U	0.001	U
Carbon tetrachloride	mg/kg	44	1	0.00076	U	0.00068	U	0.00067	U
1,2-Dichloropropane	mg/kg	84	1	0.0026	U	0.0024	U	0.0024	U
Dibromochloromethane	mg/kg	68	0.1	0.00076	U	0.00068	U	0.00067	U
1,1,2-Trichloroethane	mg/kg	100	1	0.0011	U	0.001	U	0.001	U
Tetrachloroethene	mg/kg	110	1	0.00076	U	0.00068	U	0.00067	U
Chlorobenzene	mg/kg	1000	20	0.00076	U	0.00068	U	0.00067	U
Trichlorofluoromethane	mg/kg			0.0038	U	0.0034	U	0.0034	U
1,2-Dichloroethane	mg/kg	63	0.2	0.00076	U	0.00068	U	0.00067	U
1,1,1-Trichloroethane	mg/kg	1000	40	0.00076	U	0.00068	U	0.00067	U
Bromodichloromethane	mg/kg			0.00076	U	0.00068	U	0.00067	U
trans-1,3-Dichloropropene	mg/kg	32	0.1	0.00076	U	0.00068	U	0.00067	U
cis-1,3-Dichloropropene	mg/kg	32	0.1	0.00076	U	0.00068	U	0.00067	U
1,1-Dichloropropene	mg/kg			0.0038	U	0.0034	U	0.0034	U
Bromoform	mg/kg	720	0.8	0.003	U	0.0027	U	0.0027	U
1,1,2,2-Tetrachloroethane	mg/kg	29	0.1	0.00076	U	0.00068	U	0.00067	U
Benzene	mg/kg	200	0.2	0.0011		0.00068	U	0.0014	
Toluene	mg/kg	1000	67	0.0011	U	0.001	U	0.001	U
Ethylbenzene	mg/kg	1000	10.1	0.00076	U	0.00068	U	0.00067	U
Chloromethane	mg/kg			0.0038	U	0.0034	U	0.0034	U
Bromomethane	mg/kg			0.0015	U	0.0014	U	0.0013	U
Vinyl chloride	mg/kg	3	0.4	0.0015	U	0.0014	U	0.0013	U

Table 2
Summary of Soil Analytical Results - Soil Borings
Former Chromium Process Storage Parcel
Shelton, Connecticut

			Sample ID	B6 0-2'		B6 9-12'		DUP-1	
			Sample Type	SOIL		SOIL		SOIL	
			Sample Collection Date	9/6/2012		9/6/2012		9/7/2012	
			Sample Depth (ft bgs)	0-2		9-12		0-2	
		CT RSR Criteria							
	Units	**IC DEC**	**GB PMC**						
VOCs by 8260C (cont.)									
Chloroethane	mg/kg			0.0015	U	0.0014	U	0.0013	U
1,1-Dichloroethene	mg/kg	9.5	1.4	0.00076	U	0.00068	U	0.00067	U
trans-1,2-Dichloroethene	mg/kg	1000	20	0.0011	U	0.001	U	0.001	U
Trichloroethene	mg/kg	520	1	0.0014		0.00068	U	0.0015	
1,2-Dichlorobenzene	mg/kg	1000	3.1	0.0038	U	0.0034	U	0.0034	U
1,3-Dichlorobenzene	mg/kg	1000	120	0.0038	U	0.0034	U	0.0034	U
1,4-Dichlorobenzene	mg/kg	240	15	0.0038	U	0.0034	U	0.0034	U
Methyl tert butyl ether	mg/kg	1000	20	0.0015	U	0.0014	U	0.0013	U
p/m-Xylene	mg/kg	1000	19.5	0.0015	U	0.0014	U	0.0013	U
o-Xylene	mg/kg	1000	19.5	0.0015	U	0.0014	U	0.0013	U
XYLENE (TOTAL)	mg/kg	1000	19.5	0.0015	U	0.0014	U	0.0013	U
cis-1,2-Dichloroethene	mg/kg	1000	14	0.00076	U	0.00068	U	0.00067	U
Dibromomethane	mg/kg			0.0076	U	0.0068	U	0.0067	U
1,2,3-Trichloropropane	mg/kg			0.0076	U	0.0068	U	0.0067	U
Styrene	mg/kg	1000	20	0.0015	U	0.0014	U	0.0013	U
Dichlorodifluoromethane	mg/kg			0.0076	U	0.0068	U	0.0067	U
Acetone	mg/kg	1000	140	0.027	U	0.025	U	0.024	U
Carbon disulfide	mg/kg			0.038	U	0.034	U	0.034	U
2-Butanone	mg/kg	1000	80	0.0076	U	0.0068	U	0.0067	U
4-Methyl-2-pentanone	mg/kg	1000	14	0.0076	U	0.0068	U	0.0067	U
2-Hexanone	mg/kg			0.0076	U	0.0068	U	0.0067	U
Acrylonitrile	mg/kg	11	0.1	0.003	U	0.0027	U	0.0027	U
Tetrahydrofuran	mg/kg			0.015	U	0.014	U	0.013	U
2,2-Dichloropropane	mg/kg			0.0038	U	0.0034	U	0.0034	U
1,2-Dibromoethane	mg/kg	0.067	0.1	0.003	U	0.0027	U	0.0027	U
1,3-Dichloropropane	mg/kg			0.0038	U	0.0034	U	0.0034	U
1,1,1,2-Tetrachloroethane	mg/kg	220	0.2	0.00076	U	0.00068	U	0.00067	U
Bromobenzene	mg/kg			0.0038	U	0.0034	U	0.0034	U
n-Butylbenzene	mg/kg			0.00076	U	0.00068	U	0.00067	U
sec-Butylbenzene	mg/kg			0.00076	U	0.00068	U	0.00067	U
tert-Butylbenzene	mg/kg			0.0038	U	0.0034	U	0.0034	U
o-Chlorotoluene	mg/kg			0.0038	U	0.0034	U	0.0034	U
p-Chlorotoluene	mg/kg			0.0038	U	0.0034	U	0.0034	U
1,2-Dibromo-3-chloropropane	mg/kg			0.0038	U	0.0034	U	0.0034	U

Table 2
Summary of Soil Analytical Results - Soil Borings
Former Chromium Process Storage Parcel
Shelton, Connecticut

			Sample ID	B6 0-2'	B6 9-12'	DUP-1
			Sample Type	SOIL	SOIL	SOIL
			Sample Collection Date	9/6/2012	9/6/2012	9/7/2012
			Sample Depth (ft bgs)	0-2	9-12	0-2
		CT RSR Criteria				
	Units	**IC DEC**	**GB PMC**			
VOCs by 8260C (cont.)						
Hexachlorobutadiene	mg/kg			0.0038 U	0.0034 U	0.0034 U
Isopropylbenzene	mg/kg			0.00076 U	0.00068 U	0.00067 U
p-Isopropyltoluene	mg/kg			0.00087	0.00068 U	0.00067 U
Naphthalene	mg/kg	2500	56	0.0038 U	0.0034 U	0.0034 U
n-Propylbenzene	mg/kg			0.00076 U	0.00068 U	0.00067 U
1,2,3-Trichlorobenzene	mg/kg			0.0038 U	0.0034 U	0.0034 U
1,2,4-Trichlorobenzene	mg/kg			0.0038 U	0.0034 U	0.0034 U
1,3,5-Trimethylbenzene	mg/kg			0.0038 U	0.0034 U	0.0034 U
1,2,4-Trimethylbenzene	mg/kg			0.0038 U	0.0034 U	0.0034 U
trans-1,4-Dichloro-2-butene	mg/kg			0.0038 U	0.0034 U	0.0034 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	mg/kg			0.003 U	0.0027 U	0.0027 U
ETPH by CTDEEP Method						
ETPH-CT	mg/kg	2500	2500	490	21	430

Notes:

1. CT RSR = Connecticut Remediation Standard Regulations
2. I/C DEC = Industrial/Commercial Direct Exposure Criteria
3. GB PMC = GB Pollutant Mobility Criteria
4. mg/kg = milligram per kilogram dry weight
5. U = Not detected above laboratory reporting limit

Table 3
Summary of SPLP Analytical Data
Former Chromium Process Storage Parcel
Shelton, Connecticut

		Sample ID	B-1 0-2		B-1 13-16	
		Sample Type	SOIL		SOIL	
		Sample Collection Date	9/6/2012		9/6/2012	
		Sample Depth (ft bgs)	0-2		13-16	
Parameter	**Units**	**GB PMC**				
SPLP Metals						
Antimony, SPLP	mg/l	0.06	0.0302		0.0039	
Arsenic, SPLP	mg/l	0.5	0.005	U	0.005	U
Barium, SPLP	mg/l	10	0.027		0.02	
Beryllium, SPLP	mg/l	0.04	0.005	U	0.005	U
Cadmium, SPLP	mg/l	0.05	0.005	U	0.005	U
Chromium, SPLP	mg/l	0.5	0.02		0.01	U
Copper, SPLP	mg/l	13	0.051		0.038	
Lead, SPLP	mg/l	0.15	0.092		0.022	
Mercury, SPLP	mg/l	0.02	0.001	U	0.001	U
Nickel, SPLP	mg/l	1	0.025	U	0.025	U
Selenium, SPLP	mg/l	0.5	0.01	U	0.01	U
Silver, SPLP	mg/l	0.36	0.007	U	0.007	U
Thallium, SPLP	mg/l	0.05	0.0005	U	0.0005	U
Vanadium, SPLP	mg/l	0.5	0.01	U	0.01	U
Zinc, SPLP	mg/l	50	0.066		0.05	U

Notes:

SPLP = Synthetic Precipitation Leaching Procedure
GB PMC = Connecticut RSR GB Pollutant Mobility Criterion
mg/l = milligrams per liter
U = not detected above reporting limit

Table 4
Water Quality Data Recorded During Well Purging
Former Chromium Process Storage Parcel
Shelton, Connecticut

MW ID	Date	Time	Purge Rate (mL/min)	DTW (feet)	Drawdown (feet)	Temp (°C)	SC (µS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (NTU)
MW-1	9/13/2012	0935	200	10.67	0.06	15.7	376.8	7.88	-330.7	0.15	3.11
MW-2	9/13/2012	1115	300	14.72	0.00	14.9	719.0	7.82	-192.5	0.25	1.79
MW-3	9/13/2012	1345	300	6.81	0.00	20.0	381.7	7.09	-137.0	0.11	1.03

Table 5
Summary of Groundwater Analytical Data
Former Chromium Process Storage Parcel
Shelton, Connecticut

					Well ID	MW-1	MW-2	MW-3	DUP-1
					Sampling Date	9/13/2012	9/13/2012	9/13/2012	9/14/2012
					QC Identifier	UPLICAT			UPLICAT
					CT RSR Criteria				
Parameter	**CasNum**	**GWPC**	**Units**	**SWPC**	**I/C VC**				
PAHs by 8270D SIM									
Acenaphthene	83-32-9		ug/l			0.2 U	0.2 U	0.99	0.2 U
Fluoranthene	206-44-0	280	ug/l	3700		0.2 U	0.2 U	0.27	0.2 U
Naphthalene	91-20-3	280	ug/l			0.2 U	0.2 U	0.2 U	0.2 U
Benzo(a)anthracene	56-55-3	0.06	ug/l	0.3		0.05 U	0.05 U	0.05 U	0.05 U
Benzo(a)pyrene	50-32-8	0.2	ug/l	0.3		0.2 U	0.2 U	0.2 U	0.2 U
Benzo(b)fluoranthene	205-99-2	0.08	ug/l	0.3		0.05 U	0.05 U	0.05 U	0.05 U
Benzo(k)fluoranthene	207-08-9	0.5	ug/l	0.3		0.2 U	0.2 U	0.2 U	0.2 U
Chrysene	218-01-9		ug/l			0.2 U	0.2 U	0.2 U	0.2 U
Acenaphthylene	208-96-8	420	ug/l	0.3		0.2 U	0.2 U	0.2 U	0.2 U
Anthracene	120-12-7	2000	ug/l	1100000		0.2 U	0.2 U	0.2 U	0.2 U
Benzo(ghi)perylene	191-24-2		ug/l			0.2 U	0.2 U	0.2 U	0.2 U
Fluorene	86-73-7	280	ug/l	140000		0.2 U	0.2 U	0.47	0.2 U
Phenanthrene	85-01-8	200	ug/l	0.077		0.05 U	0.05 U	0.05 U	0.05 U
Dibenzo(a,h)anthracene	53-70-3		ug/l			0.2 U	0.2 U	0.2 U	0.2 U
Indeno(1,2,3-cd)Pyrene	193-39-5		ug/l			0.2 U	0.2 U	0.2 U	0.2 U
Pyrene	129-00-0	200	ug/l	110000		0.2 U	0.2 U	0.42	0.2 U
2-Methylnaphthalene	91-57-6		ug/l			0.2 U	0.2 U	0.2 U	0.2 U
PCBs by 8082									
Aroclor 1016	12674-11-2	0.5	ug/l	0.5		0.25 U	0.25 U	0.25 U	0.25 U
Aroclor 1221	11104-28-2	0.5	ug/l	0.5		0.25 U	0.25 U	0.25 U	0.25 U
Aroclor 1232	11141-16-5	0.5	ug/l	0.5		0.25 U	0.25 U	0.25 U	0.25 U
Aroclor 1242	53469-21-9	0.5	ug/l	0.5		0.25 U	0.25 U	0.25 U	0.25 U
Aroclor 1248	12672-29-6	0.5	ug/l	0.5		0.25 U	0.25 U	0.25 U	0.25 U
Aroclor 1254	11097-69-1	0.5	ug/l	0.5		0.25 U	0.25 U	0.25 U	0.25 U
Aroclor 1260	11096-82-5	0.5	ug/l	0.5		0.25 U	0.25 U	0.25 U	0.25 U
Aroclor 1262	37324-23-5	0.5	ug/l	0.5		0.25 U	0.25 U	0.25 U	0.25 U
Aroclor 1268	11100-14-4	0.5	ug/l	0.5		0.25 U	0.25 U	0.25 U	0.25 U
Metals by 6010C/7471B									
Antimony, Total	7440-36-0	6	ug/l	86000		1.8	1.6	1.7	1.5
Arsenic, Total	7440-38-2	50	ug/l	4		1.5	3.2	1.5	1.5
Barium, Total	7440-39-3	1000	ug/l			19	21	36	19
Beryllium, Total	7440-41-7	4	ug/l	4		0.5 U	0.5 U	0.5 U	0.5 U
Cadmium, Total	7440-43-9	5	ug/l	6		5 U	5 U	5 U	5 U
Chromium, Total	7440-47-3	50	ug/l			10 U	10 U	10 U	10 U
Copper, Total	7440-50-8	1300	ug/l	48		10 U	10 U	10 U	10 U
Lead, Total	7439-92-1	15	ug/l	13		10 U	10 U	10 U	10 U
Mercury, Total	7439-97-6	2	ug/l	0.4		0.2 U	0.2 U	0.2 U	0.2 U
Nickel, Total	7440-02-0	100	ug/l	880		25 U	25 U	25 U	25 U
Selenium, Total	7782-49-2	50	ug/l	50		10 U	10 U	10 U	10 U
Silver, Total	7440-22-4	36	ug/l	12		7 U	7 U	7 U	7 U
Thallium, Total	7440-28-0	5	ug/l	63		0.5 U	0.5 U	0.5 U	0.5 U
Vanadium, Total	7440-62-2	50	ug/l			10 U	10 U	10 U	10 U
Zinc, Total	7440-66-6	5000	ug/l	123		50 U	50 U	50 U	50 U
VOCs by 8260C									
Methylene chloride	75-09-2	5	ug/l	48000	2200	5 U	20 U	5 U	5 U
1,1-Dichloroethane	75-34-3	70	ug/l		41000	1.5	38	0.75 U	1.4
Chloroform	67-66-3	6	ug/l	14100	62	0.75 U	3 U	0.75 U	0.75 U
Carbon tetrachloride	56-23-5	5	ug/l	132	14	0.5 U	2 U	0.5 U	0.5 U
1,2-Dichloropropane	78-87-5	5	ug/l		58	1.8 U	7 U	1.8 U	1.8 U
Dibromochloromethane	124-48-1	0.5	ug/l	1020		0.5 U	2 U	0.5 U	0.5 U

Table 5
Summary of Groundwater Analytical Data
Former Chromium Process Storage Parcel
Shelton, Connecticut

					Well ID	MW-1	MW-2	MW-3	DUP-1
					Sampling Date	9/13/2012	9/13/2012	9/13/2012	9/14/2012
					QC Identifier	UPLICAT			UPLICAT
					CT RSR Criteria				
Parameter	**CasNum**	**GWPC**	**Units**	**SWPC**	**I/C VC**				
VOCs by 8260C (cont)									
1,1,2-Trichloroethane	79-00-5	5	ug/l	1260	2900	0.75 U	3 U	0.75 U	0.75 U
Tetrachloroethene	127-18-4	5	ug/l	88	810	2	14	0.5 U	2.1
Chlorobenzene	108-90-7	100	ug/l	420000	23000	0.5 U	2 U	0.5 U	0.5 U
Trichlorofluoromethane	75-69-4		ug/l		4200	2.5 U	10 U	2.5 U	2.5 U
1,2-Dichloroethane	107-06-2	1	ug/l	2970	68	0.5 U	2 U	0.5 U	0.5 U
1,1,1-Trichloroethane	71-55-6	200	ug/l	62000	16000	2.3	210	0.5 U	2
Bromodichloromethane	75-27-4		ug/l		73	0.5 U	2 U	0.5 U	0.5 U
trans-1,3-Dichloropropene	10061-02-6	0.5	ug/l	34000		0.5 U	2 U	0.5 U	0.5 U
cis-1,3-Dichloropropene	10061-01-5	0.5	ug/l	34000		0.5 U	2 U	0.5 U	0.5 U
1,1-Dichloropropene	563-58-6		ug/l			2.5 U	10 U	2.5 U	2.5 U
Bromoform	75-25-2	4	ug/l	10800	2300	2 U	8 U	2 U	2 U
1,1,2,2-Tetrachloroethane	79-34-5	0.5	ug/l	110	54	0.5 U	2 U	0.5 U	0.5 U
Benzene	71-43-2	1	ug/l	710	310	0.5 U	2 U	0.5 U	0.5 U
Toluene	108-88-3	1000	ug/l	4000000	41000	0.75 U	3 U	0.75 U	0.75 U
Ethylbenzene	100-41-4	700	ug/l	580000	36000	0.5 U	2 U	0.5 U	0.5 U
Chloromethane	74-87-3		ug/l		5500	2.5 U	10 U	2.5 U	2.5 U
Bromomethane	74-83-9		ug/l			1 U	4 U	1 U	1 U
Vinyl chloride	75-01-4	2	ug/l	15750	52	1 U	4 U	1 U	1 U
Chloroethane	75-00-3		ug/l		29000	1 U	4 U	1 U	1 U
1,1-Dichloroethene	75-35-4	7	ug/l	96	920	0.5 U	2.4	0.5 U	0.5 U
trans-1,2-Dichloroethene	156-60-5	100	ug/l		13000	0.75 U	3 U	0.75 U	0.75 U
Trichloroethene	79-01-6	5	ug/l	2340	67	2.3	13	0.5 U	2.2
1,2-Dichlorobenzene	95-50-1	600	ug/l	170000	50000	2.5 U	10 U	2.5 U	2.5 U
1,3-Dichlorobenzene	541-73-1	600	ug/l	26000	50000	2.5 U	10 U	2.5 U	2.5 U
1,4-Dichlorobenzene	106-46-7	75	ug/l	26000	3400	2.5 U	10 U	2.5 U	2.5 U
Methyl tert butyl ether	1634-04-4	100	ug/l		50000	1 U	4 U	1 U	1 U
p/m-Xylene	179601-23-1	530	ug/l			1 U	4 U	1 U	1 U
o-Xylene	95-47-6	530	ug/l			1 U	4 U	1 U	1 U
XYLENE (TOTAL)	1330-20-7	530	ug/l		48000	1 U	4 U	1 U	1 U
cis-1,2-Dichloroethene	156-59-2	70	ug/l		11000	0.51	5.4	0.5 U	0.5 U
Dibromomethane	74-95-3		ug/l			5 U	20 U	5 U	5 U
1,2,3-Trichloropropane	96-18-4		ug/l			5 U	20 U	5 U	5 U
Styrene	100-42-5	100	ug/l		42000	1 U	4 U	1 U	1 U
Dichlorodifluoromethane	75-71-8		ug/l		1200	5 U	20 U	5 U	5 U
Acetone	67-64-1	700	ug/l		50000	5 U	20 U	5 U	5 U
Carbon disulfide	75-15-0		ug/l			5 U	20 U	5 U	5 U
2-Butanone	78-93-3	400	ug/l		50000	5 U	20 U	5 U	5 U
4-Methyl-2-pentanone	108-10-1	350	ug/l		50000	5 U	20 U	5 U	5 U
2-Hexanone	591-78-6		ug/l			5 U	20 U	5 U	5 U
Acrylonitrile	107-13-1	0.5	ug/l	20		5 U	20 U	5 U	5 U
Tetrahydrofuran	109-99-9		ug/l			5 U	20 U	5 U	5 U
2,2-Dichloropropane	594-20-7		ug/l			2.5 U	10 U	2.5 U	2.5 U
1,2-Dibromoethane	106-93-4	0.05	ug/l		11	2 U	8 U	2 U	2 U
1,3-Dichloropropane	142-28-9		ug/l			2.5 U	10 U	2.5 U	2.5 U
1,1,1,2-Tetrachloroethane	630-20-6	1	ug/l		64	0.5 U	2 U	0.5 U	0.5 U
Bromobenzene	108-86-1		ug/l			2.5 U	10 U	2.5 U	2.5 U
n-Butylbenzene	104-51-8		ug/l		21000	0.5 U	2 U	0.5 U	0.5 U
sec-Butylbenzene	135-98-8		ug/l		20000	0.5 U	2 U	0.5 U	0.5 U
tert-Butylbenzene	98-06-6		ug/l			2.5 U	10 U	2.5 U	2.5 U
o-Chlorotoluene	95-49-8		ug/l			2.5 U	10 U	2.5 U	2.5 U

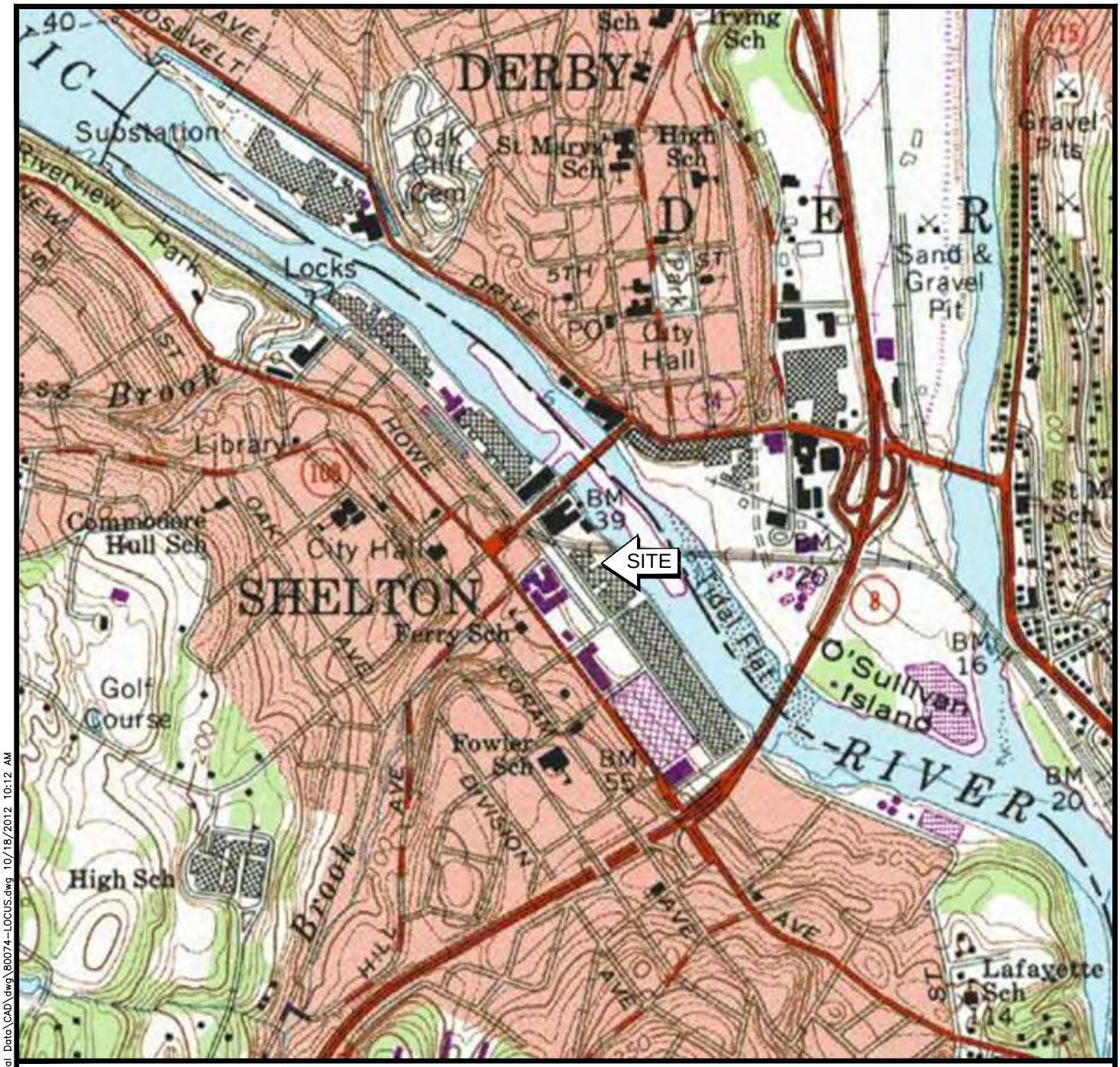
Table 5
Summary of Groundwater Analytical Data
Former Chromium Process Storage Parcel
Shelton, Connecticut

					Well ID	MW-1	MW-2	MW-3	DUP-1
					Sampling Date	9/13/2012	9/13/2012	9/13/2012	9/14/2012
					QC Identifier	UPLICAT			UPLICAT
					CT RSR Criteria				
Parameter	**CasNum**	**GWPC**	**Units**	**SWPC**	**I/C VC**				
VOCs by 8260C (cont)									
p-Chlorotoluene	106-43-4		ug/l			2.5 U	10 U	2.5 U	2.5 U
1,2-Dibromo-3-chloropropane	96-12-8		ug/l			2.5 U	10 U	2.5 U	2.5 U
Hexachlorobutadiene	87-68-3		ug/l			0.6 U	2.4 U	0.6 U	0.6 U
Isopropylbenzene	98-82-8		ug/l		6800	0.5 U	2 U	0.5 U	0.5 U
p-Isopropyltoluene	99-87-6		ug/l			0.5 U	2 U	0.5 U	0.5 U
Naphthalene	91-20-3	280	ug/l			2.5 U	10 U	2.5 U	2.5 U
n-Propylbenzene	103-65-1		ug/l			0.5 U	2 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	87-61-6		ug/l			2.5 U	10 U	2.5 U	2.5 U
1,2,4-Trichlorobenzene	120-82-1		ug/l			2.5 U	10 U	2.5 U	2.5 U
1,3,5-Trimethylbenzene	108-67-8		ug/l		3900	2.5 U	10 U	2.5 U	2.5 U
1,2,4-Trimethylbenzene	95-63-6		ug/l		4800	2.5 U	10 U	2.5 U	2.5 U
trans-1,4-Dichloro-2-butene	110-57-6		ug/l			2.5 U	10 U	2.5 U	2.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1		ug/l			2 U	8 U	2 U	2 U
ETPH by CTDEEP Method									
ETPH-CT	ETPH	500	ug/l			100 U	100 U	100 U	100 U

Notes:

1. CT RSR = Connecticut Remediation Standard Regulations
2. SWPC = Surface Water Protection Criteria
3. I/C VC = Industrial/Commercial Volatilization Criteria
4. ug/l = microgram per liter
5. U = Not detected above laboratory reporting limit
6. Grey shading = detected
7. Black shading = detected above CT RSR criterion

FIGURES



NORTH

USGS TOPOGRAPHIC MAP

ASONIA, CONNECTICUT
CREATED 1964
REVISED 1984

APPROXIMATE SCALE
1 INCH = 1,000 FEET

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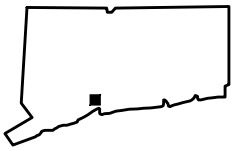

QUADRANGLE LOCATION

FIGURE 1

LOCUS PLAN
CHROMIUM PROCESS STORAGE PARCEL
113A EAST CANAL STREET
SHELTON, CONNECTICUT

PROJECT NO. 80074.04

DATE: OCTOBER 2012

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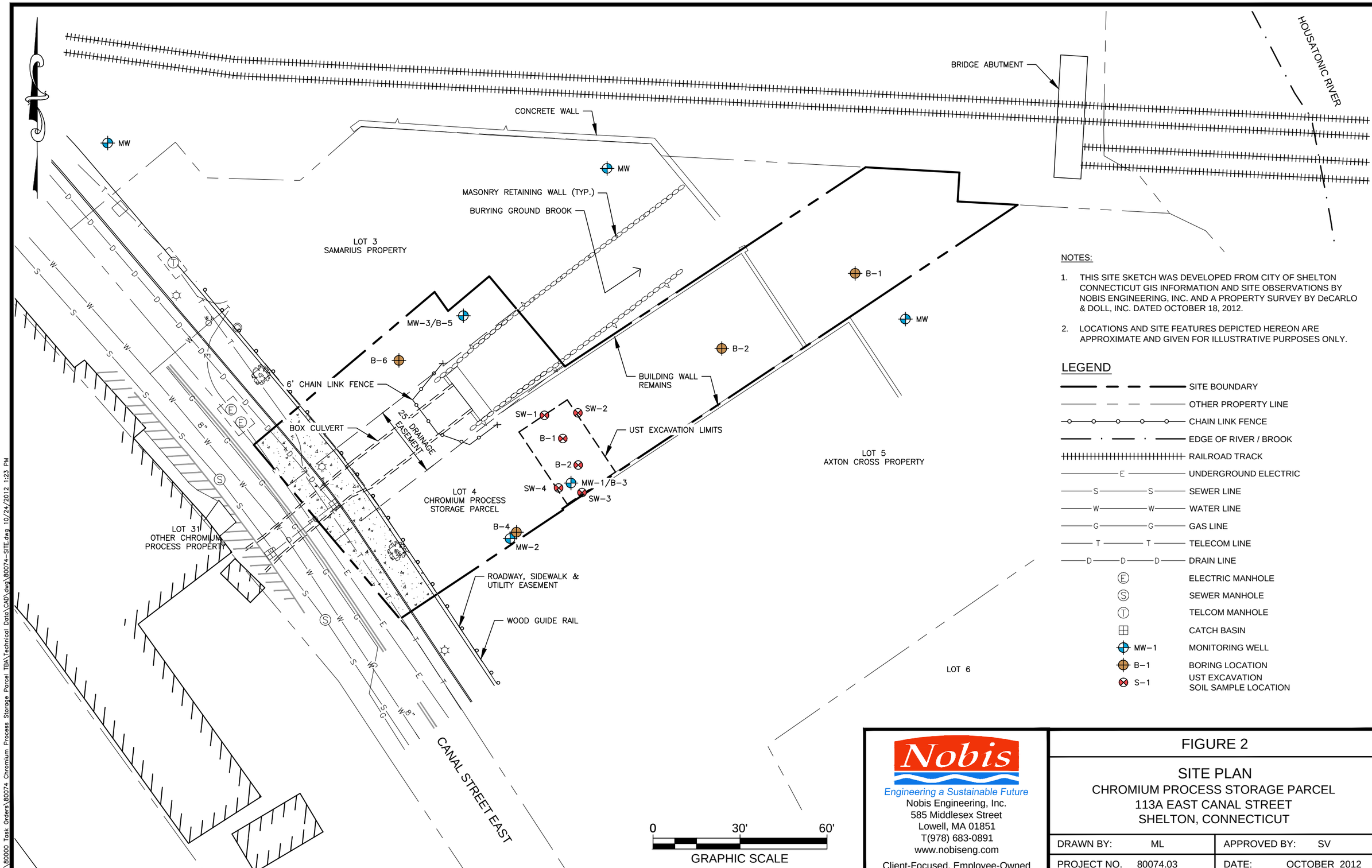

NOTES:

1. THIS SITE SKETCH WAS DEVELOPED FROM CITY OF SHELTON CONNECTICUT GIS INFORMATION AND SITE OBSERVATIONS BY NOBIS ENGINEERING, INC. AND A PROPERTY SURVEY BY DeCARLO & DOLL, INC. DATED OCTOBER 18, 2012.
2. LOCATIONS AND SITE FEATURES DEPICTED HEREON ARE APPROXIMATE AND GIVEN FOR ILLUSTRATIVE PURPOSES ONLY.

LEGEND

- SITE BOUNDARY
- OTHER PROPERTY LINE
- CHAIN LINK FENCE
- EDGE OF RIVER / BROOK
- RAILROAD TRACK
- E — UNDERGROUND ELECTRIC
- S — SEWER LINE
- W — WATER LINE
- G — GAS LINE
- T — TELECOM LINE
- D — DRAIN LINE
- E — ELECTRIC MANHOLE
- S — SEWER MANHOLE
- T — TELCOM MANHOLE
- CATCH BASIN
- MW-1 — MONITORING WELL
- B-1 — BORING LOCATION
- S-1 — UST EXCAVATION SOIL SAMPLE LOCATION

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FIGURE 2

SITE PLAN
CHROMIUM PROCESS STORAGE PARCEL
113A EAST CANAL STREET
SHELTON, CONNECTICUT

DRAWN BY:	ML	APPROVED BY:	SV
PROJECT NO.	80074.03	DATE:	OCTOBER 2012

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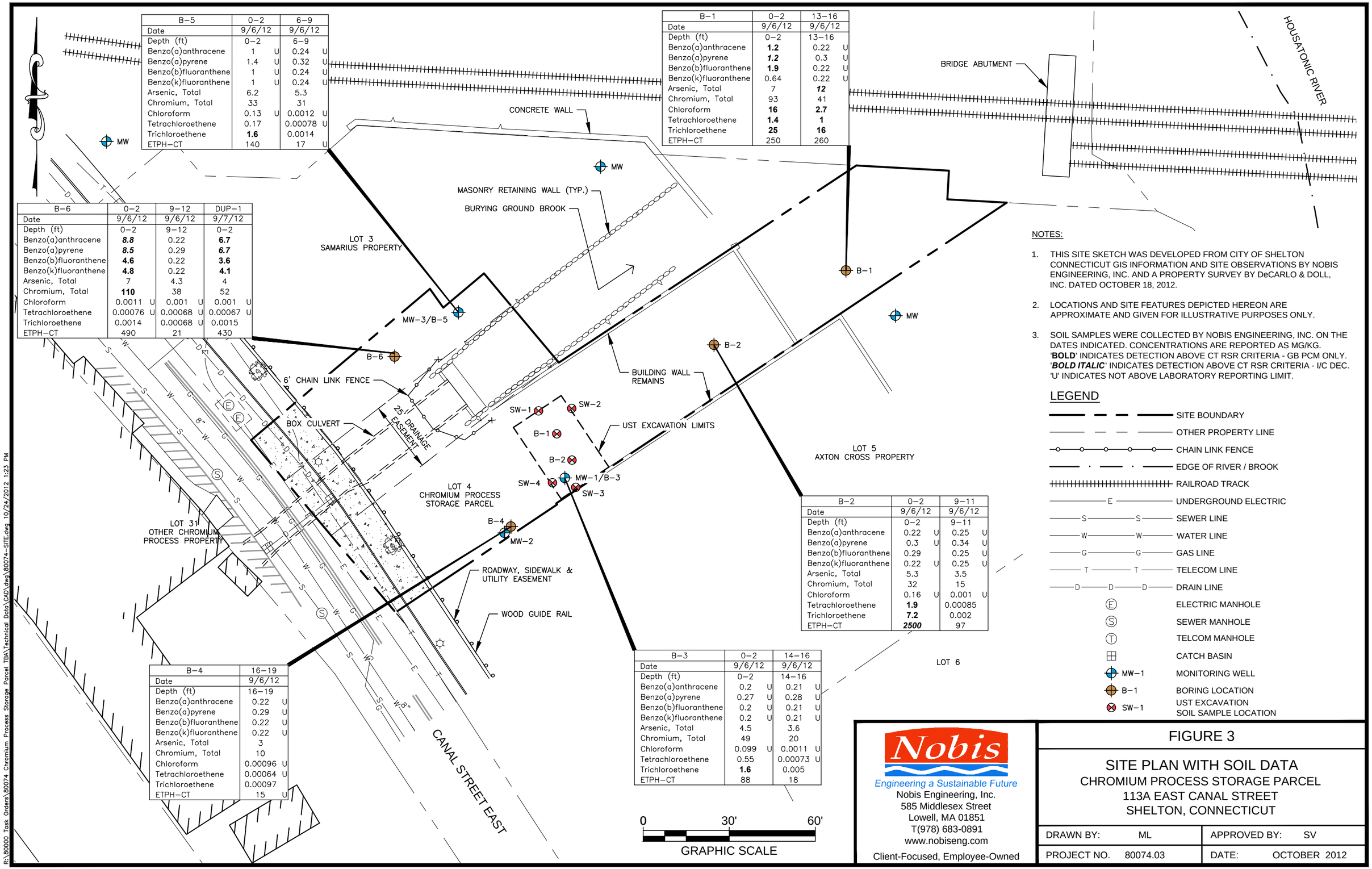

B-5	0-2	6-9
Date	9/6/12	9/6/12
Depth (ft)	0-2	6-9
Benzo(a)anthracene	1 U	0.24 U
Benzo(a)pyrene	1.4 U	0.32 U
Benzo(b)fluoranthene	1 U	0.24 U
Benzo(k)fluoranthene	1 U	0.24 U
Arsenic, Total	6.2	5.3
Chromium, Total	33	31
Chloroform	0.13 U	0.0012 U
Tetrachloroethene	0.17	0.00078 U
Trichloroethene	**1.6**	0.0014
ETPH-CT	140	17 U

B-1	0-2	13-16
Date	9/6/12	9/6/12
Depth (ft)	0-2	13-16
Benzo(a)anthracene	**1.2**	0.22 U
Benzo(a)pyrene	***1.2***	0.3 U
Benzo(b)fluoranthene	**1.9**	0.22 U
Benzo(k)fluoranthene	0.64	0.22 U
Arsenic, Total	7	***12***
Chromium, Total	93	41
Chloroform	**16**	**2.7**
Tetrachloroethene	**1.4**	**1**
Trichloroethene	**25**	**16**
ETPH-CT	250	260

B-6	0-2	9-12	DUP-1
Date	9/6/12	9/6/12	9/7/12
Depth (ft)	0-2	9-12	0-2
Benzo(a)anthracene	***8.8***	0.22	**6.7**
Benzo(a)pyrene	***8.5***	0.29	***6.7***
Benzo(b)fluoranthene	**4.6**	0.22	**3.6**
Benzo(k)fluoranthene	**4.8**	0.22	**4.1**
Arsenic, Total	7	4.3	4
Chromium, Total	**110**	38	52
Chloroform	0.0011 U	0.001 U	0.001 U
Tetrachloroethene	0.00076 U	0.00068 U	0.00067 U
Trichloroethene	0.0014	0.00068 U	0.0015
ETPH-CT	490	21	430

B-2	0-2	9-11
Date	9/6/12	9/6/12
Depth (ft)	0-2	9-11
Benzo(a)anthracene	0.22 U	0.25 U
Benzo(a)pyrene	0.3 U	0.34 U
Benzo(b)fluoranthene	0.29	0.25 U
Benzo(k)fluoranthene	0.22 U	0.25 U
Arsenic, Total	5.3	3.5
Chromium, Total	32	15
Chloroform	0.16 U	0.001 U
Tetrachloroethene	**1.9**	0.00085
Trichloroethene	**7.2**	0.002
ETPH-CT	***2500***	97

B-3	0-2	14-16
Date	9/6/12	9/6/12
Depth (ft)	0-2	14-16
Benzo(a)anthracene	0.2 U	0.21 U
Benzo(a)pyrene	0.27 U	0.28 U
Benzo(b)fluoranthene	0.2 U	0.21 U
Benzo(k)fluoranthene	0.2 U	0.21 U
Arsenic, Total	4.5	3.6
Chromium, Total	49	20
Chloroform	0.099 U	0.0011 U
Tetrachloroethene	0.55	0.00073 U
Trichloroethene	**1.6**	0.005
ETPH-CT	88	18

B-4	16-19
Date	9/6/12
Depth (ft)	16-19
Benzo(a)anthracene	0.22 U
Benzo(a)pyrene	0.29 U
Benzo(b)fluoranthene	0.22 U
Benzo(k)fluoranthene	0.22 U
Arsenic, Total	3
Chromium, Total	10
Chloroform	0.00096 U
Tetrachloroethene	0.00064 U
Trichloroethene	0.00097
ETPH-CT	15 U

NOTES:

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2. LOCATIONS AND SITE FEATURES DEPICTED HEREON ARE APPROXIMATE AND GIVEN FOR ILLUSTRATIVE PURPOSES ONLY.
3. SOIL SAMPLES WERE COLLECTED BY NOBIS ENGINEERING, INC. ON THE DATES INDICATED. CONCENTRATIONS ARE REPORTED AS MG/KG. '**BOLD**' INDICATES DETECTION ABOVE CT RSR CRITERIA - GB PCM ONLY. '***BOLD ITALIC***' INDICATES DETECTION ABOVE CT RSR CRITERIA - I/C DEC. 'U' INDICATES NOT ABOVE LABORATORY REPORTING LIMIT.

LEGEND

- SITE BOUNDARY
- OTHER PROPERTY LINE
- CHAIN LINK FENCE
- EDGE OF RIVER / BROOK
- RAILROAD TRACK
- UNDERGROUND ELECTRIC
- SEWER LINE
- WATER LINE
- GAS LINE
- TELECOM LINE
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FIGURE 3

SITE PLAN WITH SOIL DATA
CHROMIUM PROCESS STORAGE PARCEL
113A EAST CANAL STREET
SHELTON, CONNECTICUT

DRAWN BY:	ML	APPROVED BY:	SV
PROJECT NO.	80074.03	DATE:	OCTOBER 2012

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APPENDIX A

BORING LOG

Nobis — Engineering a Sustainable Future

Project: Former Chromium Process Storage Parcel

Location: Shelton, CT

Nobis Project No.: 80074.03 / 0320

Boring No.: B-1

Boring Location: NE Side of site at base of hill for railroad

Checked by: S. Vetere

Date Start: September 6, 2012

Date Finish: September 6, 2012

Contractor: Technical Drilling Services

Driller: J. James

Nobis Rep.: J. Brunelle

Rig Type / Model: Geoprobe 6620DT

Hammer Type:

Hammer Hoist:

Ground Surface Elev.:

Datum: N/A

	Drilling Method	Sampler
Type	Geoprobe	PVC Sleeves
Size ID (in.)	3	2
Advancement	Push	Push

Groundwater Observations

Date	Time	Depth Below Ground (ft.)	Depth of Casing (ft.)	Depth to Bottom of Hole (ft.)	Stabilization Time
▽ 09/06/12	10:40	15			

Depth (ft.)	Type & No.	Rec (in.)	Depth (ft.)	Blows/ 6 in.	PID (ppm)	Ground Water	Graphic	Stratum Elev. / Depth (ft.)	SAMPLE DESCRIPTION AND REMARKS (Classification System: Modified Burmister)	NOTES
		19	0-5		1.1				A Horizon. (Dark brown, fine to medium SAND, little to some Gravel, Rock Fragments).	
1									Alternating layers of brown/dark brown fine SAND, little to trace coarse to medium Sand and Gravel, dry.	
2									Some Ash, some iron staining, FILL.	
3										
					0.2					
4										
5								/ 5.0	(10:35) Analytical sample collected from 0-2'.	
		22	5-10						(7"): Dark brown, fine to medium SAND, trace Gravel, concrete, and wood. dry.	
6										
					2.7				(9"): Brown/light brown, fine SAND, trace medium to coarse Sand and Gravel. dry.	
7										
8									(7"): Orange-brown, fine SAND, trace medium to coarse Sand, and Ash. dry.	
9										
10								/ 10.0		
		15	10-15						(6"): Orange/dark brown, fine to coarse SAND, little Gravel. moist.	
11										
					3.2				(3"): Orange brown/brown, medium to coarse SAND, little Gravel. moist.	
12										
13									(2"): Gray, fine SAND and ROCK FRAGMENTS. moist.	
14									(4"): Tan, medium to coarse SAND, little Gravel, rock fragments. moist.	
15						▽		/ 15.0	(10:40) Analytical sample collected from 13-16'.	
		40	15-20						(9"): Dark brown, fine to medium SAND, trace coarse Sand and Gravel. wet.	
16										
					0.2				(13"): Dark brown, SILT to Sandy SILT. wet.	
17										
18									(18"): Gray/brown, Silty SAND to fine SAND. wet.	
19									(1"): Gray, medium to coarse SAND. wet.	
20								/ 20.0		
		28	20-25						(12"): Gray/brown, fine to medium SAND, little Gravel. wet. changing to.	
21										
22									Gray, coarse SAND and Gravel. wet.	
					0					
23										
24										
25								/ 25.0		

Soil	Percentage	Non-Soil
trace	5 - 10	very few
little	10 - 20	few
some	20 - 35	several
and	35 - 50	numerous

NOTES: Boring terminated at 25 feet.

Soil descriptions are based on visual classifications and should be considered approximate. Stratification lines are approximate boundaries between stratums; transitions may be gradual.

DRAFT

BOREHOLE LOG - NOBIS GINT DATA TEMPLATE OCT 7 2011.GDT - 10/25/12 09:59 - C:\DOCUMENTS AND SETTINGS\SDUBE\MY DOCUMENTS\FILES\TASKS\80074.03 - CHROMIUM PROCESS TBA\BORINGS\BORING LOGS - 10-24-12.GPJ

BORING LOG

Nobis — Engineering a Sustainable Future

Project: Former Chromium Process Storage Parcel

Location: Shelton, CT

Nobis Project No.: 80074.03 / 0320

Boring No.: **B-2**

Boring Location: NE End of former courtyard

Checked by: S. Vetere

Date Start: September 6, 2012

Date Finish: September 6, 2012

Contractor: Technical Drilling Services

Driller: J. James

Nobis Rep.: J. Brunelle

Rig Type / Model: Geoprobe 6620DT

Hammer Type:

Hammer Hoist:

Ground Surface Elev.:

Datum: N/A

	Drilling Method	Sampler
Type	Geoprobe	PVC Sleeves
Size ID (in.)	3	2
Advancement	Push	Push

Groundwater Observations

Date	Time	Depth Below Ground (ft.)	Depth of Casing (ft.)	Depth to Bottom of Hole (ft.)	Stabilization Time

Depth (ft.)	Type & No.	Rec (in.)	Depth (ft.)	Blows/ 6 in.	PID (ppm)	Ground Water	Graphic	Stratum Elev. / Depth (ft.)	SAMPLE DESCRIPTION AND REMARKS (Classification System: Modified Burmister)	NOTES
		25	0-5						(1"): A Horizon. (Dark brown, fine to medium SAND, little to some Gravel).	
1										
					0.2				(12"): Concrete and brick rubble.	
2										
									(1"): Tan, fine to medium SAND, trace coarse Sand.	
3										
									(6"): Orange-brown, fine to medium SAND, trace Roots.	
4										
									(4"): Gray, fine SAND.	
5								/ 5.0	(12:15) Analytical sample collected from 0-2'.	
		46	5-10						Gray, Sandy SILT to Silty SAND. moist.	
6										
					0.8					
7										
8										
9										
									(12:20) Analytical sample collected from 9-11'.	
10								/ 10.0		
		21	10-15						As Above.	
11										
					2.6					
12										
									Gray/brown, fine to medium SAND, little Gravel and Silt, poorly sorted. wet.	
13										
									Brick fragments.	
14										
15								/ 15.0		
		60	15-20						Gray/tan, fine SAND, trace medium to coarse Sand and Gravel. wet.	
16										
					0					
17										
									Tan, fine SAND. wet.	
18										
19										
20								/ 20.0		
									Boring terminated at 20 feet.	
21										
22										
23										
24										
25										

Soil	Percentage	Non-Soil
trace	5 - 10	very few
little	10 - 20	few
some	20 - 35	several
and	35 - 50	numerous

NOTES:

Soil descriptions are based on visual classifications and should be considered approximate. Stratification lines are approximate boundaries between stratums; transitions may be gradual.

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BORING LOG

Nobis — Engineering a Sustainable Future

Project: Former Chromium Process Storage Parcel

Location: Shelton, CT

Nobis Project No.: 80074.03 / 0320

Boring No.: **B-3 / MW-1**

Boring Location: SE End of former courtyard, adjacent to wall/tank grave

Checked by: S. Vetere

Date Start: September 6, 2012

Date Finish: September 6, 2012

Contractor: Technical Drilling Services

Driller: J. James

Nobis Rep.: J. Brunelle

Rig Type / Model: Geoprobe 6620DT

Hammer Type:

Hammer Hoist:

Ground Surface Elev.:

Datum: N/A

	Drilling Method	Sampler
Type	Geoprobe	PVC Sleeves
Size ID (in.)	3	2
Advancement	Push	Push

Groundwater Observations

Date	Time	Depth Below Ground (ft.)	Depth of Casing (ft.)	Depth to Bottom of Hole (ft.)	Stabilization Time

Depth (ft.)	Type & No.	Rec (in.)	Depth (ft.)	Blows/ 6 in.	PID (ppm)	Ground Water	Graphic	Stratum Elev. / Depth (ft.)	SAMPLE DESCRIPTION AND REMARKS (Classification System: Modified Burmister)	WELL DETAIL	NOTES
1		15	0-5						(5"): Brown, fine to coarse SAND, trace Gravel and Brick.	Roadbox	
2					2.6				(4"): Brick fragments.		
3									(4"): Brown, fine to medium SAND, little Wood Fragments and Roots, trace Brick and Gravel. Concrete fragments.		
4											
5								/ 5.0	(12:35) Analytical sample collected from 0-2'.	Native backfill	
6		29	5-10						Brown/gray, fine to medium SAND, Brick, and Concrete.		
7					1.6					Well	
8											
9									Brown, fine to coarse SAND, little Gravel.		
10								/ 10.0		Bentonite	
11		48	10-15						Fine to medium SAND and GRAVEL, Brick, and Glass fragments. moist.		
12					0.4						
13									Brown, fine to coarse SAND and GRAVEL, Rock fragments, trace Brick. wet.		
14											
15								/ 15.0	(13:09) Analytical sample collected from 14-16'.		
16		60	15-20								
17									Dark brown, fine to coarse SAND and GRAVEL, trace Brick. wet.	Sand	
18					0				Brown, fine to medium SAND. wet.	Screen	
19									Brown, fine to coarse SAND and GRAVEL. wet.		
20								/ 20.0			
21											
22								/ 22.0	2" Well set at 22'.		
23									Boring terminated at 22 feet.		
24											
25											

Soil	Percentage	Non-Soil
trace	5 - 10	very few
little	10 - 20	few
some	20 - 35	several
and	35 - 50	numerous

NOTES:

Soil descriptions are based on visual classifications and should be considered approximate. Stratification lines are approximate boundaries between stratums; transitions may be gradual.

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BORING LOG

Nobis — Engineering a Sustainable Future

Project:	Former Chromium Process Storage Parcel
Location:	Shelton, CT
Nobis Project No.:	80074.03 / 0320
Boring No.:	**B-4 / MW-2**
Boring Location:	Base of bank at street
Checked by:	S. Vetere
Date Start:	September 6, 2012
Date Finish:	September 6, 2012
Contractor:	Technical Drilling Services
Driller:	J. James
Nobis Rep.:	J. Brunelle
Rig Type / Model:	Geoprobe 6620DT
Hammer Type:	
Hammer Hoist:	
Ground Surface Elev.:	
Datum:	N/A

	Drilling Method	Sampler
Type	Geoprobe	PVC Sleeves
Size ID (in.)	3	2
Advancement	Push	Push

Groundwater Observations

Date	Time	Depth Below Ground (ft.)	Depth of Casing (ft.)	Depth to Bottom of Hole (ft.)	Stabilization Time
▽ 09/06/12	14:00	17			

Depth (ft.)	Type & No.	Rec (in.)	Depth (ft.)	Blows/ 6 in.	PID (ppm)	Ground Water	Graphic	Stratum Elev. / Depth (ft.)	SAMPLE DESCRIPTION AND REMARKS (Classification System: Modified Burmister)	WELL DETAIL	NOTES
1		25	0-5						(14"): Brown/light brown, fine SAND, trace Gravel. (NEW FILL).	Roadbox	
2					0				(6"): Fine SAND and GRAVEL, Rock fragments, trace Brick. (OLD FILL).		
3											
4											
5								/ 5.0			
6		21	5-10						Brown/dark brown, medium to coarse SAND, little Gravel, trace Brick.	Native Backfill	
7					0.2				(1"): Concrete fragments and Powder.	Well	
8											
9											
10								/ 10.0	(7"): Orange-brown, fine to medium SAND, trace coarse Sand, trace Gravel.		
11		38	10-15						Black, fine to coarse SAND, some to little Gravel, Rock fragments. moist.		
12					0						
13									(8"): Orange-brown, fine to coarse SAND, little Gravel, Rock fragments. moist.	Bentonite	
14											
15								/ 15.0			
16		60	15-20						Brown, fine to coarse SAND, little Gravel, Brick fragments.		
17						▽			Brown, fine to medium SAND, little coarse Sand and Gravel, changing to.		
18					0				Gray, fine to coarse SAND, some to little Gravel.		
19										Sand	
20								/ 20.0	(14:00) Analytical sample collected from 16-19'.	Screen	
21									As Above.		
22											
23									Brown, fine to coarse SAND.		
24									Brown, fine to coarse SAND, some to little Gravel.		
25								/ 25.0	1" Well set at 25'.		

Boring terminated at 25 feet.

Soil	Percentage	Non-Soil
trace	5 - 10	very few
little	10 - 20	few
some	20 - 35	several
and	35 - 50	numerous

NOTES:
1) 3" Casing refusal at 12'. 1" Well set adjacent to boring

Soil descriptions are based on visual classifications and should be considered approximate. Stratification lines are approximate boundaries between stratums; transitions may be gradual.

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BORING LOG

Nobis — Engineering a Sustainable Future

Project:	Former Chromium Process Storage Parcel
Location:	Shelton, CT
Nobis Project No.:	80074.03 / 0320
Boring No.:	B-5 / MW-3
Boring Location:	N Side of brook, brook center
Checked by:	S. Vetere
Date Start:	September 6, 2012
Date Finish:	September 6, 2012
Contractor:	Technical Drilling Services
Driller:	J. James
Nobis Rep.:	J. Brunelle
Rig Type / Model:	Geoprobe 6620DT
Hammer Type:	
Hammer Hoist:	
Ground Surface Elev.:	
Datum:	N/A

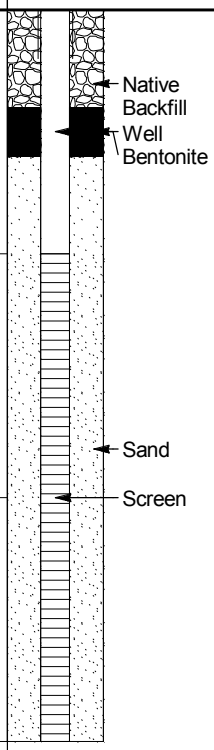
	Drilling Method	Sampler
Type	Geoprobe	PVC Sleeves
Size ID (in.)	3	2
Advancement	Push	Push

Groundwater Observations

Date	Time	Depth Below Ground (ft.)	Depth of Casing (ft.)	Depth to Bottom of Hole (ft.)	Stabilization Time
▽ 09/06/12	17:05	6.5			

Depth (ft.)	Sample Type & No.	Rec (in.)	Depth (ft.)	Blows/ 6 in.	PID (ppm)	Ground Water	Graphic	Stratum Elev. / Depth (ft.)	Sample Description and Remarks (Classification System: Modified Burmister)
1									A Horizon. (Dark brown, fine SAND, little medium to coarse Sand, trace Gravel). moist.
2					0.1				Gray, fine to medium SAND and ROCK FRAGMENTS, little Gravel. moist.
3									Brown, Silty SAND. moist.
4									
5								/ 5.0	(16:57) Analytical sample collected from 0-2'.
6									Brown, fine to coarse SAND, little Gravel. moist.
7					0	▽			Brown, Sandy SILT. wet.
8									Brown/orange brown, medium to coarse SAND. wet.
9									Gray/brown, fine to coarse SAND, some Gravel. wet.
10								/ 10.0	(17:05) Analytical sample collected from 6-9'.
11									As Above, changing to.
12					0				
13									Gray, fine to coarse SAND and GRAVEL, little to some Silt. wet.
14									
15								/ 15.0	2" Well set at 15'.
16									Boring terminated at 15 feet.
17									
18									
19									
20									
21									
22									
23									
24									
25									

WELL DETAIL



NOTES

Soil	Percentage	Non-Soil
trace	5 - 10	very few
little	10 - 20	few
some	20 - 35	several
and	35 - 50	numerous

NOTES:

Soil descriptions are based on visual classifications and should be considered approximate. Stratification lines are approximate boundaries between stratums; transitions may be gradual.

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BORING LOG

Nobis — Engineering a Sustainable Future

Project:	Former Chromium Process Storage Parcel
Location:	Shelton, CT
Nobis Project No.:	80074.03 / 0320
Boring No.:	B-6
Boring Location:	N of eastern brook culvert
Checked by:	S. Vetere
Date Start:	September 6, 2012
Date Finish:	September 6, 2012
Contractor:	Technical Drilling Services
Driller:	J. James
Nobis Rep.:	J. Brunelle
Rig Type / Model:	Geoprobe 6620DT
Hammer Type:	
Hammer Hoist:	
Ground Surface Elev.:	
Datum:	N/A

	Drilling Method	Sampler
Type	Geoprobe	PVC Sleeves
Size ID (in.)	3	2
Advancement	Push	Push

Groundwater Observations

Date	Time	Depth Below Ground (ft.)	Depth of Casing (ft.)	Depth to Bottom of Hole (ft.)	Stabilization Time
▽ 09/06/12	16:50	11.5			N/A

Depth (ft.)	Type & No.	Rec (in.)	Depth (ft.)	Blows/ 6 in.	PID (ppm)	Ground Water	Graphic	Stratum Elev. / Depth (ft.)	SAMPLE DESCRIPTION AND REMARKS (Classification System: Modified Burmister)	NOTES
1		20	0-5						A Horizon. (Dark brown, fine SAND, little medium to coarse Sand, trace Gravel).	
2					0				Brown/gray, fine to medium SAND and ROCK FRAGMENTS, some Gravel. dry.	
3									(6"): Dark brown, fine to medium SAND, little coarse Sand and Gravel, asphalt type odor. dry.	
4										
5					2.9			/ 5.0	(16:40) Analytical sample collected from 0-2'.	
6		24	5-10						(7"): Dark brown, fine SAND, little Gravel, trace coarse Sand.	
7					0					
8									Brown, fine to medium SAND, little Gravel and coarse Sand.	
9										
10								/ 10.0	(16:50) Analytical sample collected from 9-12'.	
11		27	10-15						Brown, fine to coarse SAND, little Gravel. poorly sorted, moist.	
12						▽				
13										
14										
15								/ 15.0		
16									As Above.	
17										
18									Black, Sandy SILT. Burnt odor.	
19									(2"): Rock fragments / Gravel.	
20								/ 20.0		
21									Boring terminated at 20 feet.	
22										
23										
24										
25										

Soil	Percentage	Non-Soil
trace	5 - 10	very few
little	10 - 20	few
some	20 - 35	several
and	35 - 50	numerous

NOTES:
1) Duplicate sample collected

Soil descriptions are based on visual classifications and should be considered approximate. Stratification lines are approximate boundaries between stratums; transitions may be gradual.

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Nobis
Engineering a Sustainable Future

Low-Flow Field Log

SOP No: SA-003 | Attachment B, Page 1 of 1
Date: Mar. 2010 | Rev.: 2
Prepared by: S. Bonis
Approved by: M. Summerlin

Date : 9.13-12 Page 1 of 1 **Well ID :** MW-3
Field Personnel JNB Purging Start Time : 13:10
Well Depth as installed (ft.): 15 Measured Well Depth (ft.): 15.20
Screen Length in ft. 10 Screen Depth in ft. 5-15 Parameter Stabilization: (Circle) Yes / No
Depth to GW (ft.): 6.79 From: TOPVC Two Hour Time Limit Reached ? (Circle) Yes / No
Pump/Tubing Intake set (ft.): 10 From: TOP OF PVC Total Volume Purged, Including Drawdown (gallons): ~~3.5~~ 3.0
Sample Designation MW-3 Time at Purge Completion: 14:00
Sample Time 13:45 Signature:
Pump Type (include pressure, discharge, and recharge for bladder pump under pump setting and comments) PERISTALTIC 6609
Multimeter model and serial number YSI 520 12H 100497 Turbidity meter model and serial number HACH 2100Q 1109000122916
Notes: (initial wellhead PID/FID reading, deviations from SOP, etc.)

Clock Time	Discharge / Refill / Pump Setting	Purge Rate	Depth to Water	Draw down	Cum. Draw down	Temp. +/- 3%	Spec. Cond. +/- 3%	pH +/- 0.1	ORP +/-10	DO +/- 10% if >0.5 mg/L	Turbidity +/- 10% if > 5 NTU	Comments / Gas Pressure / Observations
HHMM	sec. / sec. or setting	ml/min	ft.	ft.	ft.	°C	µS/cm		mV	mg/L	NTU	
13:10		300	6.79									
13:17		300	6.80	0.01	0.01	20.2	381.3	7.30	-96.1	0.20	10.8	
13:20		300	6.80	0.00	0.01	20.1	381.1	7.24	-27.7	0.15	3.81	
13:25		300	6.80	0.00	0.01	20.1	381.9	7.20	-114.8	0.13	2.14	
13:30		300	6.80	0.00	0.01	20.1	382.1	7.17	-123.7	0.13	2.63	
13:35		300	6.80	0.00	0.01	20.1	382.0	7.12	-131.4	0.12	1.41	
13:40		300	6.81	0.01	0.02	20.0	381.8	7.09	-135.1	0.12	1.27	
13:45		300	6.81	0.00	0.02	20.0	381.7	7.09	-137.0	0.11	1.03	Sample Collected

Notes: All depths in feet below top of PVC unless specified.
NR = No Reading
Use the back of the log to record additional observations and descriptions.

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Nobis
Engineering a Sustainable Future

Low-Flow Field Log

SOP No: SA-003 | Attachment B, Page 1 of 1
Date: Mar. 2010 | Rev.: 2
Prepared by: S. Bonis
Approved by: M. Summerlin

Date: 9·13 Page 1 of 1 Well ID: MW-1
Field Personnel JNB Purging Start Time: 8:34
Well Depth as installed (ft.): 22 Measured Well Depth (ft.): 22.06
Screen Length in ft. 10 Screen Depth in ft. 12-22 Parameter Stabilization: (Circle) Yes / No
Depth to GW (ft.): 10.61 From: TOP OF PVC Two Hour Time Limit Reached ? (Circle) Yes / No
Pump/Tubing Intake set (ft.): 17 From: TOP OF PVC Total Volume Purged, Including Drawdown (gallons): 3.5
Sample Designation MW-1 Time at Purge Completion: 10:35
Sample Time 9:35 Signature: [signature]
Pump Type (include pressure, discharge, and recharge for bladder pump under pump setting and comments) PERISTALTIC 669
Multimeter model and serial number YSI 556 12H100497 Turbidity meter model and serial number HACH 2100Q 1109 0C012296
Notes: (initial wellhead PID/FID reading, deviations from SOP, etc.)
MW-1 = BORING B-3
AREA TIDAL INFLUENCE?

Clock Time	Discharge / Refill / Pump Setting	Purge Rate	Depth to Water	Draw down	Cum. Draw down	Temp. +/- 3%	Spec. Cond. +/- 3%	pH +/- 0.1	ORP +/-10	DO +/- 10% if >0.5 mg/L	Turbidity +/- 10% if > 5 NTU	Comments / Gas Pressure / Observations
HHMM	sec. / sec. or setting	ml/min	ft.	ft.	ft.	°C	µS/cm		mV	mg/L	NTU	
8:34		200	10.61									FILL CELL, ADJUST RATE
8:40		200	10.61	0.00	0.00	16.5	419.9	8.23	-250.3	0.35		
8:45		200	10.61	0.00	0.00	16.2	408.4	7.69	-202.1	1.58		
8:50		200	10.62	0.01	0.01	16.5	408.9	7.67	-38.8	6.72		PUMP NOT PUMPING - FIX FLOW (BAD DATA)
8:55		200	10.62	0.00	0.01	16.2	405.1	7.66	-271.3	0.29	17.1	
9:00		200	10.62	0.00	0.01	16.1	404.3	7.64	-293.9	0.24	3.10	
9:05		200	10.64	0.02	0.03	15.9	394.7	7.65	-332.9	0.19	2.94	
9:10		200	10.65	0.01	0.04	15.8	390.1	7.70	-339.8	0.16		
9:15		200	10.65	0.00	0.04	15.7	387.0	7.72	-343.4	0.15		
9:20		200	10.66	0.01	0.05	15.7	381.8	7.78	-340.0	0.15	3.11	
9:28		200	10.66	0.00	0.05	15.7	379.4	7.84	-336.5	0.15		
9:35		200	10.67	0.01	0.06	15.7	376.0	7.88	-330.7	0.15		SAMPLE COLLECTED

Notes: All depths in feet below top of PVC unless specified.
NR = No Reading
Use the back of the log to record additional observations and descriptions.

Duplicate collected (24:00)

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Nobis
Engineering a Sustainable Future

Low-Flow Field Log

SOP No: SA-003 | Attachment B, Page 1 of 1
Date: Mar. 2010 | Rev.: 2
Prepared by: S. Bonis
Approved by: M. Summerlin

Date : 9·13·12 Page 1 of 1 **Well ID :** MW-2
Field Personnel JNB Purging Start Time : 10:40
Well Depth as installed (ft.): 25 Measured Well Depth (ft.): 24.78
Screen Length in ft. 10 Screen Depth in ft. 15-25 Parameter Stabilization: (Circle) Yes / No
Depth to GW (ft.): 14.72 From: ROADBOX COLLAR Two Hour Time Limit Reached ? (Circle) Yes / No
Pump/Tubing Intake set (ft.): 22 From: ROADBOX COLLAR Total Volume Purged, Including Drawdown (gallons): 3
Sample Designation MW-2 Time at Purge Completion: 1200
Sample Time 11:15 / 11:25 MS/MSD Signature:
Pump Type (include pressure, discharge, and recharge for bladder pump under pump setting and comments) PERISTALTIC 669
Multimeter model and serial number YSI Pro 12H 100 497 Turbidity meter model and serial number HACH 2100Q 1109000122916
Notes: (initial wellhead PID/FID reading, deviations from SOP, etc.)

Clock Time	Discharge / Refill / Pump Setting	Purge Rate	Depth to Water	Draw down	Cum. Draw down	Temp. +/- 3%	Spec. Cond. +/- 3%	pH +/- 0.1	ORP +/-10	DO +/- 10% if >0.5 mg/L	Turbidity +/- 10% if > 5 NTU	Comments / Gas Pressure / Observations
HHMM	sec. / sec. or setting	ml/min	ft.	ft.	ft.	°C	µS/cm		mV	mg/L	NTU	
10:40		300	14.72								→	FILL CELL, ADJUST RATE
10:48		300	14.72	0.00	0.00					→	67.5	ISSUE w/ YSI, remove battery to reset
10:55		300	14.72	0.00	0.00	14.9	720	7.78	-170.3	0.31	29.5	
11:00		300	14.72	0.00	0.00	14.9	721	7.81	-184.3	0.27	12.8	
11:05		300	14.72	0.00	0.00	15.1	720	7.81	-192.0	0.26	4.97	
11:10		300	14.72	0.00	0.00	14.8	719	7.82	-190.5	0.26	2.35	
11:15		300	14.72	0.00	0.00	14.9	719	7.82	-192.5	0.25	1.79	Sample collected

Notes: All depths in feet below top of PVC unless specified.
NR = No Reading
Use the back of the log to record additional observations and descriptions.

MS/MSD collected 11:25

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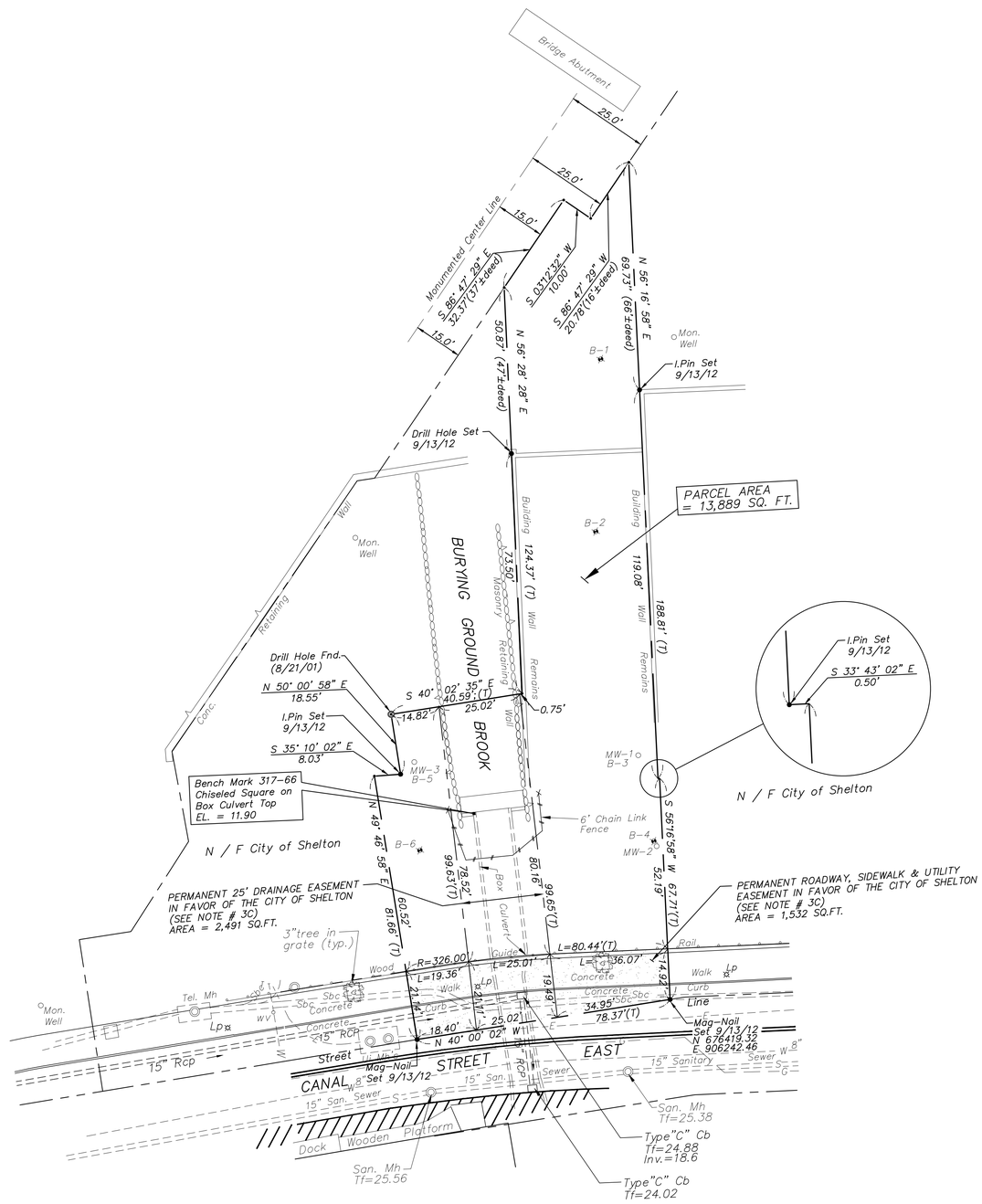
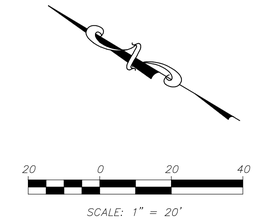
APPENDIX B





LEGEND

CONCRETE CURBING	
EDGE OF PAVEMENT	
CHAIN LINK FENCE	
BUILDING	
CATCH BASIN	cb
WATER VALVE	wv
WATER VALVE	gv
MANHOLE	mh
UTILITY POLE	
UTILITY POLE W/LIGHT	
STORM SEWER	
SANITARY SEWER	S
UNDERGROUND TELEPHONE	Sbc
UNDERGROUND ELECTRIC	E
GAS MAIN	G
WATER MAIN	W

NOTES:

1. THIS SURVEY HAS BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20–300B–1 THROUGH 20–300B–20 AND THE " STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT " AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. IT IS A " PROPERTY SURVEY " BASED UPON A DEPENDANT RESURVEY, CONFORMING TO HORIZONTAL ACCURACY CLASS A–2. TOPOGRAPHIC INFORMATION SHOWN CONFORMS TO VERTICAL ACCURACY CLASS T–2. IT IS INTENDED TO DEPICT THE EXISTING CONDITIONS OF THE PARCEL SHOWN HEREON, AND THE RELATIONSHIP OF IMPROVEMENTS TO PROPERTY AND EASEMENT LINES.

2. BEARINGS AND COORDINATES SHOWN ARE BASED UPON THE CONNECTICUT STATE PLANES COORDINATE SYSTEM N.A.D. 1983. ELEVATIONS SHOWN ARE BASED UPON VERTICAL DATUM N.A.V.D. 1988.

3. REFERENCE IS MADE TO THE FOLLOWING MAPS ENTITLED:
   A. "SHELTON, CONN., PLAN SHOWING LAND AND RIGHTS TO BE EXCHANGED WITH SIDNEY BLUMENTHAL & CO. INC." BY THE NEW YORK, NEW HAVEN & HARTFORD RAILROAD CO., REAL ESTATE & RIGHT OF WAY DEPARTMENT, SCALE 1"=40' AND DATED SEPT., 1929.
   B. "MAP OF PROPERTY OWNED BY CHARLES C. SMITH INC., SHELTON, CONNECTICUT" BY V. B. CLARKE, SCALE 1"=10' AND DATED MAY 19, 1948.
   C. "PROPOSED EASEMENT MAP, LAND NOW OR FORMERLY THE CHROMIUM PROCESS COMPANY, CANAL STREET EAST, SHELTON, CONNECTICUT" BY DeCARLO AND DOLL, INC. SCALE 1"=20' AND DATED NOV. 29, 2002.

4. THIS PARCEL IS SHOWN AS LOT #4 ON TAX MAP #130 IN THE CITY OF SHELTON ASSESSORS OFFICE.

5. THIS MAP IS NOT VALID WITHOUT A LIVE SIGNATURE AND RAISED SEAL.

MONITORING WELL DATA

Well / Boring #	Ground EL.	Well Cover EL.	Top PVC Pipe EL.	Inside Well Casing EL.
B–1	13.8	–	–	–
B–2	8.6	–	–	–
MW–1 / B–3	–	13.04	12.71	–
B–4	16.4	–	–	–
MW–2	–	17.10	16.72	17.03
MW–3 / B–5	–	9.73	9.27	–
B–6	11.6	–	–	–

" TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON

MARK L. FORD L.S.# 70087

BID DOCUMENTS

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NO.	DATE	REVISIONS

DESIGNED BY: MLF
DRAWN BY: MLF
CHECKED BY:
APPROVED BY:

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DeCARLO & DOLL, INC.
89 Colony Street
Meriden, CT 06451
Architects Engineers Surveyors
Planners Construction Managers
Telephone (203) 379-0467
Fax (203) 379-0278

PROPERTY SURVEY

LAND NOW OR FORMERLY
CHROMIUM PROCESS COMPANY

113A CANAL STREET EAST
SHELTON, CONNECTICUT

JOB NO: 51834.00
CADD NO.: PL183401
FILE NO.: A–1323

SCALE: 1"=20'
DRAWING NO.: 1/1
DATE: 10/18/2012

Coordinate Report

Pt Name	Northing	Easting	Elevation	Desc.
2	676,538.601	906,399.454	13.856	boring b-1
9	676,447.499	906,235.185	25.531	pk 9
13	676,843.537	905,805.650	25.959	dh 13
17	677,784.440	905,007.286	25.886	mag nail 17
226	676,486.318	906,275.833	11.799	clf
227	676,479.429	906,266.554	11.920	clf
228	676,483.308	906,255.477	15.399	clf
229	676,494.865	906,246.842	15.077	clf
230	676,505.036	906,255.119	12.606	clf 3'to corn
1001	676,522.762	906,416.597	15.878	mon well
1002	676,512.431	906,353.536	8.655	boring B-2
1003	676,466.313	906,301.461	13.042	mw-1/boring B-3
1004	676,466.255	906,301.525	12.706	top pvc well
1005	676,448.415	906,281.278	16.415	boring B-4
1006	676,447.144	906,280.564	16.727	top pvc well
1007	676,447.208	906,280.578	17.033	top casing
1008	676,447.277	906,280.701	17.106	mw-2
1009	676,545.758	906,361.401	13.102	corner conc
1010	676,546.374	906,362.522	13.017	corner conc
1011	676,548.180	906,361.398	13.070	corner conc
1012	676,547.276	906,359.391	13.057	corner conc
1013	676,546.583	906,359.728	13.048	corner conc
1014	676,419.123	906,216.829	25.380	san mh
1016	676,467.511	906,180.493	25.566	san mh
1017	676,491.419	906,184.219	25.633	ui mh
1018	676,487.123	906,187.579	25.658	ui mh
1019	676,459.321	906,220.943	24.879	cb
1020	676,613.385	906,088.711	26.682	spur 1020
1021	676,535.811	906,280.275	9.154	spur 1021
1022	676,523.857	906,264.294	9.271	top pvc well
1023	676,523.752	906,264.446	9.732	mw-3
1024	676,508.641	906,242.048	11.556	boring B-6
1025	676,500.268	906,260.049	11.904	bm 317-66
1026	676,574.728	906,313.736	11.536	mon well
1027	676,583.469	906,141.475	26.197	mon well
1028	676,585.918	906,475.089	24.647	cl ties
1029	676,577.294	906,632.146	24.022	cl ties
2000	676,281.425	906,334.843	25.572	sta 2000
2001	676,491.919	906,360.999	15.681	spur 2001
2002	676,447.524	906,235.126	25.506	mag nail 9
2003	676,281.425	906,334.843	25.571	dh 2000
3478	676,587.288	906,226.581	23.977	END RET-WALL
3505	676,586.017	906,276.290	17.019	RET-WALL
3506	676,584.987	906,294.616	15.798	RET-WALL
3516	676,583.135	906,329.201	10.900	CORNER RET-WALL
3517	676,568.798	906,341.163	9.308	RET-WALL+INT.
3528	676,545.229	906,360.092	9.228	CORNER+FOND.
3530	676,523.380	906,397.640	13.571	CORNER BLDG.
3531	676,532.992	906,414.851	15.441	CHAIN LINK
3534	676,519.332	906,377.309	10.367	FOUNDATION
3535	676,498.522	906,359.719	9.603	BLDG.
3536	676,521.374	906,324.385	8.619	RET-WALL
3540	676,516.654	906,309.402	7.731	TOP RET-WALL
3541	676,510.686	906,305.678	9.752	RET-WALL EDGE CO
3542	676,490.826	906,275.524	10.100	CORNER RET-WALL
3551	676,459.957	906,302.625	17.160	CORNER BLDG.+SLA
3553	676,441.304	906,274.558	16.761	BLDG.
3565	676,579.115	906,467.608	23.109	FIBER PIPE6W
3566	676,571.581	906,467.999	21.488	CORNER+ABUTMENT
3567	676,571.016	906,477.303	21.461	CORNER+ABUTMENT
3568	676,613.386	906,479.684	21.498	CORNER+ABUTMENT
3569	676,613.790	906,470.373	21.495	CORNER+ABUTMENT
3570	676,599.050	906,473.060	24.794	CL+TRACK

4366	676,498.900	906,360.239	15.471	FLOOR ELEV
4699	676,537.437	906,273.277	-99,999.000	---
5000	676,537.438	906,273.277	-99,999.000	---
5001	676,506.363	906,299.391	-99,999.000	---
5002	676,546.958	906,360.664	-99,999.000	---
5003	676,572.916	906,399.845	-99,999.000	---
5004	676,525.518	906,259.064	-99,999.000	---
5005	676,532.082	906,254.439	-99,999.000	---
5006	676,479.355	906,192.083	-99,999.000	---
5007	676,419.321	906,242.459	-99,999.000	---
5008	676,456.906	906,298.779	-99,999.000	---
5009	676,457.322	906,298.502	-99,999.000	---
5010	676,523.395	906,397.510	-99,999.000	---
5011	676,560.031	906,452.408	-99,999.000	---
5012	676,415.813	906,245.403	-99,999.000	---
6090	676,488.295	906,345.045	16.180	top wall
6091	676,506.152	906,371.696	15.545	top wall-5.8

CT COORD. GRID NAD 83 HORIZ. DATUM

NAVD 88 VERT. DATUM

STATE OF CONNECTICUT
MARK L. FORD
No. 70087
LICENSED
LAND SURVEYOR

APPENDIX C

Report Date:
20-Sep-12 11:22

☑ Final Report
☐ Re-Issued Report
☐ Revised Report

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

Laboratory Report

New England Disposal Technologies, Inc
83 Gilmore Drive
Sutton, MA 01590
Attn: Lon Cohen

Project: Frmr Chromium Process Storage - Shelton, CT
Project #: 13-13723

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
SB55890-01	Tank Liquid	Waste Water	05-Sep-12 09:50	07-Sep-12 18:30

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the sample(s) as received.
All applicable NELAC requirements have been met.

Massachusetts # M-MA138/MA1110
Connecticut # PH-0777
Florida # E87600/E87936
Maine # MA138
New Hampshire # 2538
New Jersey # MA011/MA012
New York # 11393/11840
Pennsylvania # 68-04426/68-02924
Rhode Island # 98
USDA # S-51435

Authorized by:

Nicole Leja
Laboratory Director

Spectrum Analytical holds certification in the State of New York for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of New York does not offer certification for all analytes. Please refer to our website for specific certification holdings in each state.
Please note that this report contains 25 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Spectrum Analytical, Inc.

Spectrum Analytical, Inc. is a NELAC accredited laboratory organization and meets NELAC testing standards. Use of the NELAC logo however does not insure that Spectrum is currently accredited for the specific method or analyte indicated. Please refer to our "Quality" web page at www.spectrum-analytical.com for a full listing of our current certifications and fields of accreditation. States in which Spectrum Analytical, Inc. holds NELAC certification are New York, New Hampshire, New Jersey and Florida. All analytical work for Volatile Organic and Air analysis are transferred to and conducted at our 830 Silver Street location (NY-11840, FL-E87936 and NJ-MA012).

Please contact the Laboratory or Technical Director at 800-789-9115 with any questions regarding the data contained in this laboratory report.

CASE NARRATIVE:

The samples were received 3.1 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/- 1.0 degrees Celsius was used immediately upon receipt of the samples.

If a Matrix Spike (MS), Matrix Spike Duplicate (MSD) or Duplicate (DUP) was not requested on the Chain of Custody, method criteria may have been fulfilled with a source sample not of this Sample Delivery Group.

These samples do not exhibit the characteristics of reactivity as defined in 40 CFR 261.23, sections (1), (2), (4), and (5); however, Spectrum Analytical, Inc. does not test for detonation, explosive reaction or potential, or forbidden explosives as defined in 40 CFR 261.23, sections (3), (6), (7) and (8).

See below for any non-conformances and issues relating to quality control samples and/or sample analysis/matrix.

Samples:

SB55890-01 *Tank Liquid*

The pH of this sample has been adjusted in the laboratory for the tests listed below in accordance with the preservation requirements of the applicable methods.

Polychlorinated Biphenyls

SW846 8260C

Calibration:

1209017

Analyte quantified by quadratic equation type calibration.

1,1,1,2-Tetrachloroethane
1,2,3-Trichlorobenzene
1,2,4-Trichlorobenzene
1,2-Dibromo-3-chloropropane
Bromodichloromethane
Bromoform
Carbon disulfide
Carbon tetrachloride
cis-1,3-Dichloropropene
Dibromochloromethane
Hexachlorobutadiene
Naphthalene
n-Butylbenzene
trans-1,3-Dichloropropene
Vinyl chloride

This affected the following samples:

1222562-BLK1
1222562-BS1
1222562-BSD1
S210938-ICV1
S211292-CCV1
Tank Liquid

S210938-ICV1

Analyte percent recovery is outside individual acceptance criteria (80-120).

Dichlorodifluoromethane (Freon12) (75%)

SW846 8260C

Calibration:

S210938-ICV1

This affected the following samples:

1222562-BLK1
1222562-BS1
1222562-BSD1
S211292-CCV1
Tank Liquid

Laboratory Control Samples:

1222562 BS/BSD

1,1,2-Trichlorotrifluoroethane (Freon 113) percent recoveries (66/101) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

Tank Liquid

Dichlorodifluoromethane (Freon12) percent recoveries (55/76) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

Tank Liquid

Trichlorofluoromethane (Freon 11) percent recoveries (68/95) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

Tank Liquid

1222562 BSD

1,1,2-Trichlorotrifluoroethane (Freon 113) RPD 41% (20%) is outside individual acceptance criteria, but within overall method allowances.

2,2-Dichloropropane RPD 22% (20%) is outside individual acceptance criteria, but within overall method allowances.

Carbon tetrachloride RPD 22% (20%) is outside individual acceptance criteria, but within overall method allowances.

Dichlorodifluoromethane (Freon12) RPD 31% (20%) is outside individual acceptance criteria, but within overall method allowances.

Hexachlorobutadiene RPD 21% (20%) is outside individual acceptance criteria, but within overall method allowances.

Trichlorofluoromethane (Freon 11) RPD 32% (20%) is outside individual acceptance criteria, but within overall method allowances.

1222562-BSD1

The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.

2,2-Dichloropropane
Carbon tetrachloride
Dichlorodifluoromethane (Freon12)
Hexachlorobutadiene

Samples:

SB55890-01 *Tank Liquid*

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

SW846 8270D

Calibration:

S209667-ICV1

Analyte percent recovery is outside individual acceptance criteria (80-120).

Benzo (k) fluoranthene (75%)
Benzoic acid (126%)
Pentachlorophenol (121%)

This affected the following samples:

1221809-BLK1
1221809-BS1
1221809-BSD1
S210992-CCV1
S210995-CCV1
S211051-CCV1
S211166-CCV1
Tank Liquid

Laboratory Control Samples:

1221809 BS/BSD

Benzidine percent recoveries (0/0) are outside individual acceptance criteria (40-140), but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

Tank Liquid

Benzoic acid percent recoveries (18/20) are outside individual acceptance criteria (30-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

Tank Liquid

N-Nitrosodimethylamine percent recoveries (36/34) are outside individual acceptance criteria (40-140), but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

Tank Liquid

Pyridine percent recoveries (26/24) are outside individual acceptance criteria (40-140), but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

Tank Liquid

Samples:

S210992-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

2,4-Dinitrophenol (-32.7%)
Benzidine (-31.7%)
Benzoic acid (-42.8%)
Benzyl alcohol (-50.5%)
Pentachlorophenol (-46.8%)

This affected the following samples:

1221809-BLK1

S210995-CCV1

SW846 8270D

Samples:

S210995-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

2,4-Dinitrophenol (-28.6%)
Benzidine (-34.5%)
Benzoic acid (-49.0%)
Diethyl phthalate (20.2%)
Pentachlorophenol (-25.5%)

This affected the following samples:

1221809-BS1
1221809-BSD1

S211166-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

2,4-Dinitrophenol (-24.3%)
3,3'-Dichlorobenzidine (-23.1%)
3-Nitroaniline (-20.3%)
4-Nitroaniline (-27.0%)
Aniline (-24.8%)
Benzidine (-58.4%)
Benzoic acid (-50.9%)
Benzyl alcohol (-24.8%)
Carbazole (-34.3%)
Diethyl phthalate (27.9%)
Di-n-octyl phthalate (25.8%)
Hexachlorobutadiene (26.7%)
N-Nitrosodimethylamine (-23.5%)
Pentachlorophenol (-30.0%)

This affected the following samples:

Tank Liquid

SB55890-01 *Tank Liquid*

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
Tank Liquid SB55890-01	13-13723	Waste Water	05-Sep-12 09:50	07-Sep-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds			GS1										
Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 5.00	D	µg/l	5.00	3.24	5	SW846 8260C	18-Sep-12	18-Sep-12	GMA	1222562	X
67-64-1	Acetone	< 50.0	D	µg/l	50.0	12.8	5	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 2.50	D	µg/l	2.50	2.30	5	"	"	"	"	"	X
71-43-2	Benzene	< 5.00	D	µg/l	5.00	3.34	5	"	"	"	"	"	X
108-86-1	Bromobenzene	< 5.00	D	µg/l	5.00	3.60	5	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 5.00	D	µg/l	5.00	3.55	5	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 2.50	D	µg/l	2.50	2.40	5	"	"	"	"	"	X
75-25-2	Bromoform	< 5.00	D	µg/l	5.00	3.02	5	"	"	"	"	"	X
74-83-9	Bromomethane	< 10.0	D	µg/l	10.0	5.70	5	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 50.0	D	µg/l	50.0	8.67	5	"	"	"	"	"	X
104-51-8	n-Butylbenzene	**10.3**	D	µg/l	5.00	2.81	5	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 5.00	D	µg/l	5.00	4.10	5	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 5.00	D	µg/l	5.00	3.72	5	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 10.0	D	µg/l	10.0	3.14	5	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 5.00	D	µg/l	5.00	2.74	5	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 5.00	D	µg/l	5.00	3.27	5	"	"	"	"	"	X
75-00-3	Chloroethane	< 10.0	D	µg/l	10.0	5.16	5	"	"	"	"	"	X
67-66-3	Chloroform	< 5.00	D	µg/l	5.00	3.44	5	"	"	"	"	"	X
74-87-3	Chloromethane	< 10.0	D	µg/l	10.0	7.36	5	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 5.00	D	µg/l	5.00	3.96	5	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 5.00	D	µg/l	5.00	3.66	5	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 10.0	D	µg/l	10.0	4.64	5	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 2.50	D	µg/l	2.50	1.44	5	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 2.50	D	µg/l	2.50	1.64	5	"	"	"	"	"	X
74-95-3	Dibromomethane	< 5.00	D	µg/l	5.00	3.33	5	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 5.00	D	µg/l	5.00	3.34	5	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 5.00	D	µg/l	5.00	3.56	5	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 5.00	D	µg/l	5.00	3.12	5	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 10.0	D	µg/l	10.0	2.24	5	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 5.00	D	µg/l	5.00	3.40	5	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 5.00	D	µg/l	5.00	3.90	5	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 5.00	D	µg/l	5.00	2.44	5	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 5.00	D	µg/l	5.00	3.58	5	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 5.00	D	µg/l	5.00	3.40	5	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 5.00	D	µg/l	5.00	3.56	5	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 5.00	D	µg/l	5.00	4.04	5	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 5.00	D	µg/l	5.00	3.02	5	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 5.00	D	µg/l	5.00	3.18	5	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 2.50	D	µg/l	2.50	1.26	5	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 2.50	D	µg/l	2.50	2.50	5	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 5.00	D	µg/l	5.00	3.66	5	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 2.50	D	µg/l	2.50	2.25	5	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 50.0	D	µg/l	50.0	2.72	5	"	"	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
Tank Liquid SB55890-01	13-13723	Waste Water	05-Sep-12 09:50	07-Sep-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds			GS1										
Prepared by method SW846 5030 Water MS													
98-82-8	Isopropylbenzene	< 5.00	D	µg/l	5.00	3.10	5	SW846 8260C	18-Sep-12	18-Sep-12	GMA	1222562	X
99-87-6	4-Isopropyltoluene	**16.7**	D	µg/l	5.00	3.04	5	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 5.00	D	µg/l	5.00	3.26	5	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 50.0	D	µg/l	50.0	4.66	5	"	"	"	"	"	X
75-09-2	Methylene chloride	< 10.0	D	µg/l	10.0	3.45	5	"	"	"	"	"	X
91-20-3	Naphthalene	**23.1**	D	µg/l	5.00	1.66	5	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 5.00	D	µg/l	5.00	3.79	5	"	"	"	"	"	X
100-42-5	Styrene	< 5.00	D	µg/l	5.00	3.08	5	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 5.00	D	µg/l	5.00	3.13	5	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 2.50	D	µg/l	2.50	1.74	5	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 5.00	D	µg/l	5.00	3.72	5	"	"	"	"	"	X
108-88-3	Toluene	< 5.00	D	µg/l	5.00	4.06	5	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 5.00	D	µg/l	5.00	1.88	5	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 5.00	D	µg/l	5.00	1.80	5	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 5.00	D	µg/l	5.00	3.92	5	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 5.00	D	µg/l	5.00	2.91	5	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 5.00	D	µg/l	5.00	3.21	5	"	"	"	"	"	X
79-01-6	Trichloroethene	< 5.00	D	µg/l	5.00	3.78	5	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 5.00	D	µg/l	5.00	3.14	5	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 5.00	D	µg/l	5.00	3.68	5	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	**181**	D	µg/l	5.00	3.78	5	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	**80.5**	D	µg/l	5.00	3.72	5	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 5.00	D	µg/l	5.00	4.04	5	"	"	"	"	"	X
179601-23-1	m,p-Xylene	**13.2**	D	µg/l	10.0	8.20	5	"	"	"	"	"	X
95-47-6	o-Xylene	**17.8**	D	µg/l	5.00	4.41	5	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 10.0	D	µg/l	10.0	7.21	5	"	"	"	"	"	
60-29-7	Ethyl ether	< 5.00	D	µg/l	5.00	3.46	5	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 5.00	D	µg/l	5.00	3.60	5	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 5.00	D	µg/l	5.00	3.91	5	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 5.00	D	µg/l	5.00	3.64	5	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 50.0	D	µg/l	50.0	43.2	5	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 100	D	µg/l	100	70.1	5	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 25.0	D	µg/l	25.0	3.84	5	"	"	"	"	"	X
64-17-5	Ethanol	< 2000	D	µg/l	2000	178	5	"	"	"	"	"	X
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*108*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*102*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*76*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*89*			*70-130 %*			"	"	"	"	"	
Semivolatile Organic Compounds by GCMS													
Semivolatile Organic Compounds			GS1										
Prepared by method SW846 3510C													

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
Tank Liquid SB55890-01	13-13723	Waste Water	05-Sep-12 09:50	07-Sep-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Semivolatile Organic Compounds by GCMS													
Semivolatile Organic Compounds			GS1										
Prepared by method SW846 3510C													
83-32-9	Acenaphthene	**80.0**	D	µg/l	41.7	6.75	5	SW846 8270D	11-Sep-12	16-Sep-12	MSL	1221809	X
208-96-8	Acenaphthylene	< 41.7	D	µg/l	41.7	8.42	5	"	"	"	"	"	X
62-53-3	Aniline	< 41.7	D	µg/l	41.7	17.8	5	"	"	"	"	"	X
120-12-7	Anthracene	< 41.7	D	µg/l	41.7	6.17	5	"	"	"	"	"	X
103-33-3	Azobenzene/Diphenyldiazine	< 41.7	D	µg/l	41.7	8.92	5	"	"	"	"	"	
92-87-5	Benzidine	< 41.7	D	µg/l	41.7	24.8	5	"	"	"	"	"	X
56-55-3	Benzo (a) anthracene	< 41.7	D	µg/l	41.7	4.67	5	"	"	"	"	"	X
50-32-8	Benzo (a) pyrene	< 41.7	D	µg/l	41.7	7.00	5	"	"	"	"	"	X
205-99-2	Benzo (b) fluoranthene	< 41.7	D	µg/l	41.7	8.00	5	"	"	"	"	"	X
191-24-2	Benzo (g,h,i) perylene	< 41.7	D	µg/l	41.7	12.1	5	"	"	"	"	"	X
207-08-9	Benzo (k) fluoranthene	< 41.7	D	µg/l	41.7	12.7	5	"	"	"	"	"	X
65-85-0	Benzoic acid	< 41.7	D	µg/l	41.7	13.1	5	"	"	"	"	"	X
100-51-6	Benzyl alcohol	< 41.7	D	µg/l	41.7	12.8	5	"	"	"	"	"	X
111-91-1	Bis(2-chloroethoxy)methane	< 41.7	D	µg/l	41.7	8.83	5	"	"	"	"	"	X
111-44-4	Bis(2-chloroethyl)ether	< 41.7	D	µg/l	41.7	9.33	5	"	"	"	"	"	X
108-60-1	Bis(2-chloroisopropyl)ether	< 41.7	D	µg/l	41.7	10.2	5	"	"	"	"	"	X
117-81-7	Bis(2-ethylhexyl)phthalate	< 41.7	D	µg/l	41.7	14.0	5	"	"	"	"	"	X
101-55-3	4-Bromophenyl phenyl ether	< 41.7	D	µg/l	41.7	10.9	5	"	"	"	"	"	X
85-68-7	Butyl benzyl phthalate	< 41.7	D	µg/l	41.7	6.25	5	"	"	"	"	"	X
86-74-8	Carbazole	< 41.7	D	µg/l	41.7	16.8	5	"	"	"	"	"	X
59-50-7	4-Chloro-3-methylphenol	< 41.7	D	µg/l	41.7	12.1	5	"	"	"	"	"	X
106-47-8	4-Chloroaniline	< 41.7	D	µg/l	41.7	9.83	5	"	"	"	"	"	X
91-58-7	2-Chloronaphthalene	< 41.7	D	µg/l	41.7	5.50	5	"	"	"	"	"	X
95-57-8	2-Chlorophenol	< 41.7	D	µg/l	41.7	7.00	5	"	"	"	"	"	X
7005-72-3	4-Chlorophenyl phenyl ether	< 41.7	D	µg/l	41.7	8.17	5	"	"	"	"	"	X
218-01-9	Chrysene	< 41.7	D	µg/l	41.7	5.50	5	"	"	"	"	"	X
53-70-3	Dibenzo (a,h) anthracene	< 41.7	D	µg/l	41.7	10.9	5	"	"	"	"	"	X
132-64-9	Dibenzofuran	< 41.7	D	µg/l	41.7	5.50	5	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 41.7	D	µg/l	41.7	7.08	5	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 41.7	D	µg/l	41.7	11.2	5	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 41.7	D	µg/l	41.7	6.00	5	"	"	"	"	"	X
91-94-1	3,3'-Dichlorobenzidine	< 41.7	D	µg/l	41.7	16.8	5	"	"	"	"	"	X
120-83-2	2,4-Dichlorophenol	< 41.7	D	µg/l	41.7	11.1	5	"	"	"	"	"	X
84-66-2	Diethyl phthalate	< 41.7	D	µg/l	41.7	10.2	5	"	"	"	"	"	X
131-11-3	Dimethyl phthalate	< 41.7	D	µg/l	41.7	7.08	5	"	"	"	"	"	X
105-67-9	2,4-Dimethylphenol	< 41.7	D	µg/l	41.7	8.75	5	"	"	"	"	"	X
84-74-2	Di-n-butyl phthalate	< 41.7	D	µg/l	41.7	11.2	5	"	"	"	"	"	X
534-52-1	4,6-Dinitro-2-methylphenol	< 41.7	D	µg/l	41.7	16.0	5	"	"	"	"	"	X
51-28-5	2,4-Dinitrophenol	< 41.7	D	µg/l	41.7	26.8	5	"	"	"	"	"	X
121-14-2	2,4-Dinitrotoluene	< 41.7	D	µg/l	41.7	10.7	5	"	"	"	"	"	X
606-20-2	2,6-Dinitrotoluene	< 41.7	D	µg/l	41.7	9.08	5	"	"	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
Tank Liquid SB55890-01	13-13723	Waste Water	05-Sep-12 09:50	07-Sep-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Semivolatile Organic Compounds by GCMS													
Semivolatile Organic Compounds			GS1										
Prepared by method SW846 3510C													
117-84-0	Di-n-octyl phthalate	< 41.7	D	µg/l	41.7	11.0	5	SW846 8270D	11-Sep-12	16-Sep-12	MSL	1221809	X
206-44-0	Fluoranthene	< 41.7	D	µg/l	41.7	17.8	5	"	"	"	"	"	X
86-73-7	Fluorene	**115**	D	µg/l	41.7	7.58	5	"	"	"	"	"	X
118-74-1	Hexachlorobenzene	< 41.7	D	µg/l	41.7	10.1	5	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 41.7	D	µg/l	41.7	11.0	5	"	"	"	"	"	X
77-47-4	Hexachlorocyclopentadiene	< 41.7	D	µg/l	41.7	11.2	5	"	"	"	"	"	X
67-72-1	Hexachloroethane	< 41.7	D	µg/l	41.7	9.33	5	"	"	"	"	"	X
193-39-5	Indeno (1,2,3-cd) pyrene	< 41.7	D	µg/l	41.7	11.2	5	"	"	"	"	"	X
78-59-1	Isophorone	< 41.7	D	µg/l	41.7	8.92	5	"	"	"	"	"	X
91-57-6	2-Methylnaphthalene	**488**	D	µg/l	41.7	10.7	5	"	"	"	"	"	X
95-48-7	2-Methylphenol	< 41.7	D	µg/l	41.7	7.08	5	"	"	"	"	"	X
108-39-4, 106-44-5	3 & 4-Methylphenol	< 83.3	D	µg/l	83.3	9.08	5	"	"	"	"	"	X
91-20-3	Naphthalene	< 41.7	D	µg/l	41.7	6.25	5	"	"	"	"	"	X
88-74-4	2-Nitroaniline	< 41.7	D	µg/l	41.7	8.83	5	"	"	"	"	"	X
99-09-2	3-Nitroaniline	< 41.7	D	µg/l	41.7	13.2	5	"	"	"	"	"	X
100-01-6	4-Nitroaniline	< 167	D	µg/l	167	38.1	5	"	"	"	"	"	X
98-95-3	Nitrobenzene	< 41.7	D	µg/l	41.7	8.00	5	"	"	"	"	"	X
88-75-5	2-Nitrophenol	< 41.7	D	µg/l	41.7	10.9	5	"	"	"	"	"	X
100-02-7	4-Nitrophenol	< 167	D	µg/l	167	21.4	5	"	"	"	"	"	X
62-75-9	N-Nitrosodimethylamine	< 41.7	D	µg/l	41.7	17.4	5	"	"	"	"	"	X
621-64-7	N-Nitrosodi-n-propylamine	< 41.7	D	µg/l	41.7	9.25	5	"	"	"	"	"	X
86-30-6	N-Nitrosodiphenylamine	< 41.7	D	µg/l	41.7	9.50	5	"	"	"	"	"	X
87-86-5	Pentachlorophenol	< 167	D	µg/l	167	14.8	5	"	"	"	"	"	X
85-01-8	Phenanthrene	**199**	D	µg/l	41.7	5.00	5	"	"	"	"	"	X
108-95-2	Phenol	< 41.7	D	µg/l	41.7	8.75	5	"	"	"	"	"	X
129-00-0	Pyrene	< 41.7	D	µg/l	41.7	20.6	5	"	"	"	"	"	X
110-86-1	Pyridine	< 41.7	D	µg/l	41.7	15.2	5	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 41.7	D	µg/l	41.7	8.25	5	"	"	"	"	"	X
90-12-0	1-Methylnaphthalene	**421**	D	µg/l	41.7	9.17	5	"	"	"	"	"	
95-95-4	2,4,5-Trichlorophenol	< 41.7	D	µg/l	41.7	12.2	5	"	"	"	"	"	X
88-06-2	2,4,6-Trichlorophenol	< 41.7	D	µg/l	41.7	8.08	5	"	"	"	"	"	X
82-68-8	Pentachloronitrobenzene	< 41.7	D	µg/l	41.7	13.4	5	"	"	"	"	"	X
95-94-3	1,2,4,5-Tetrachlorobenzene	< 41.7	D	µg/l	41.7	5.75	5	"	"	"	"	"	X
Surrogate recoveries:													
321-60-8	*2-Fluorobiphenyl*	*56*			*30-130 %*			"	"	"	"	"	
367-12-4	*2-Fluorophenol*	*37*			*15-110 %*			"	"	"	"	"	
4165-60-0	*Nitrobenzene-d5*	*55*			*30-130 %*			"	"	"	"	"	
4165-62-2	*Phenol-d5*	*41*			*15-110 %*			"	"	"	"	"	
1718-51-0	*Terphenyl-dl4*	*60*			*30-130 %*			"	"	"	"	"	
118-79-6	*2,4,6-Tribromophenol*	*63*			*15-110 %*			"	"	"	"	"	
Semivolatile Organic Compounds by GC													
Polychlorinated Biphenyls													
Prepared by method SW846 3510C													

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
Tank Liquid SB55890-01	13-13723	Waste Water	05-Sep-12 09:50	07-Sep-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Semivolatile Organic Compounds by GC													
Polychlorinated Biphenyls													
Prepared by method SW846 3510C													
12674-11-2	Aroclor-1016	< 0.299		µg/l	0.299	0.0128	1	SW846 8082A	11-Sep-12	12-Sep-12	IMR	1221822	X
11104-28-2	Aroclor-1221	< 0.299		µg/l	0.299	0.0213	1	"	"	"	"	"	X
11141-16-5	Aroclor-1232	< 0.299		µg/l	0.299	0.0200	1	"	"	"	"	"	X
53469-21-9	Aroclor-1242	< 0.299		µg/l	0.299	0.0109	1	"	"	"	"	"	X
12672-29-6	Aroclor-1248	< 0.299		µg/l	0.299	0.0169	1	"	"	"	"	"	X
11097-69-1	Aroclor-1254	< 0.299		µg/l	0.299	0.0148	1	"	"	"	"	"	X
11096-82-5	Aroclor-1260	< 0.299		µg/l	0.299	0.00866	1	"	"	"	"	"	X
37324-23-5	Aroclor-1262	< 0.299		µg/l	0.299	0.0130	1	"	"	"	"	"	X
11100-14-4	Aroclor-1268	< 0.299		µg/l	0.299	0.0142	1	"	"	"	"	"	X
Surrogate recoveries:													
10386-84-2	*4,4-DB-Octafluorobiphenyl (Sr)*	*30*			*30-150 %*			"	"	"	"	"	
10386-84-2	*4,4-DB-Octafluorobiphenyl (Sr) [2C]*	*30*			*30-150 %*			"	"	"	"	"	
2051-24-3	*Decachlorobiphenyl (Sr)*	*40*			*30-150 %*			"	"	"	"	"	
2051-24-3	*Decachlorobiphenyl (Sr) [2C]*	*35*			*30-150 %*			"	"	"	"	"	
TCLP Metals by EPA 1311 & 6000/7000 Series Methods													
	TCLP Extraction	**Completed**		N/A			1	SW846 1311	14-Sep-12	14-Sep-12	JLH	1222371	
	TCLP Extraction	**Completed**		N/A			1	"	"	"	"	"	
7440-22-4	Silver	< 0.0100		mg/l	0.0100	0.0036	1	SW846 1311/6010C	17-Sep-12	18-Sep-12	edt	1222390	X
7440-38-2	Arsenic	< 0.0080		mg/l	0.0080	0.0062	1	"	"	"	"	"	X
7440-39-3	Barium	**0.430**		mg/l	0.0100	0.0006	1	"	"	"	"	"	X
7440-43-9	Cadmium	< 0.0050		mg/l	0.0050	0.0003	1	"	"	"	"	"	X
7440-47-3	Chromium	< 0.0100		mg/l	0.0100	0.0066	1	"	"	"	"	"	X
7439-97-6	Mercury	< 0.00020		mg/l	0.00020	0.00007	1	SW846 1311/7470A	"	17-Sep-12	JLM	1222391	X
7439-92-1	Lead	**0.0631**		mg/l	0.0150	0.0039	1	SW846 1311/6010C	"	18-Sep-12	edt	1222390	X
7782-49-2	Selenium	< 0.0300		mg/l	0.0300	0.0076	1	"	"	"	"	"	X
General Chemistry Parameters													
	Flashpoint	**>150**		°F			1	SW846 1010	12-Sep-12	12-Sep-12	VK	1222066	
	pH	**5.29**	pH	pH Units			1	ASTM D 1293-99B	10-Sep-12 11:45	10-Sep-12 11:45	SPW	1221736	
Reactivity Cyanide/Sulfide													
Prepared by method General Preparation													
	Reactivity	**Nonreactive**		mg/l			1	SW846 Ch. 7.3	13-Sep-12	14-Sep-12	BD	1222211	
	Reactive Cyanide	< 25.0		mg/l	25.0	2.50	1	"	"	"	"	"	
	Reactive Sulfide	< 50.0		mg/l	50.0	5.00	1	"	"	"	"	"	

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1222562 - SW846 5030 Water MS										
Blank (1222562-BLK1)					Prepared & Analyzed: 18-Sep-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.00		µg/l	1.00						
Acetone	< 10.0		µg/l	10.0						
Acrylonitrile	< 0.50		µg/l	0.50						
Benzene	< 1.00		µg/l	1.00						
Bromobenzene	< 1.00		µg/l	1.00						
Bromochloromethane	< 1.00		µg/l	1.00						
Bromodichloromethane	< 0.50		µg/l	0.50						
Bromoform	< 1.00		µg/l	1.00						
Bromomethane	< 2.00		µg/l	2.00						
2-Butanone (MEK)	< 10.0		µg/l	10.0						
n-Butylbenzene	< 1.00		µg/l	1.00						
sec-Butylbenzene	< 1.00		µg/l	1.00						
tert-Butylbenzene	< 1.00		µg/l	1.00						
Carbon disulfide	< 2.00		µg/l	2.00						
Carbon tetrachloride	< 1.00		µg/l	1.00						
Chlorobenzene	< 1.00		µg/l	1.00						
Chloroethane	< 2.00		µg/l	2.00						
Chloroform	< 1.00		µg/l	1.00						
Chloromethane	< 2.00		µg/l	2.00						
2-Chlorotoluene	< 1.00		µg/l	1.00						
4-Chlorotoluene	< 1.00		µg/l	1.00						
1,2-Dibromo-3-chloropropane	< 2.00		µg/l	2.00						
Dibromochloromethane	< 0.50		µg/l	0.50						
1,2-Dibromoethane (EDB)	< 0.50		µg/l	0.50						
Dibromomethane	< 1.00		µg/l	1.00						
1,2-Dichlorobenzene	< 1.00		µg/l	1.00						
1,3-Dichlorobenzene	< 1.00		µg/l	1.00						
1,4-Dichlorobenzene	< 1.00		µg/l	1.00						
Dichlorodifluoromethane (Freon12)	< 2.00		µg/l	2.00						
1,1-Dichloroethane	< 1.00		µg/l	1.00						
1,2-Dichloroethane	< 1.00		µg/l	1.00						
1,1-Dichloroethene	< 1.00		µg/l	1.00						
cis-1,2-Dichloroethene	< 1.00		µg/l	1.00						
trans-1,2-Dichloroethene	< 1.00		µg/l	1.00						
1,2-Dichloropropane	< 1.00		µg/l	1.00						
1,3-Dichloropropane	< 1.00		µg/l	1.00						
2,2-Dichloropropane	< 1.00		µg/l	1.00						
1,1-Dichloropropene	< 1.00		µg/l	1.00						
cis-1,3-Dichloropropene	< 0.50		µg/l	0.50						
trans-1,3-Dichloropropene	< 0.50		µg/l	0.50						
Ethylbenzene	< 1.00		µg/l	1.00						
Hexachlorobutadiene	< 0.50		µg/l	0.50						
2-Hexanone (MBK)	< 10.0		µg/l	10.0						
Isopropylbenzene	< 1.00		µg/l	1.00						
4-Isopropyltoluene	< 1.00		µg/l	1.00						
Methyl tert-butyl ether	< 1.00		µg/l	1.00						
4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0						
Methylene chloride	< 2.00		µg/l	2.00						
Naphthalene	< 1.00		µg/l	1.00						
n-Propylbenzene	< 1.00		µg/l	1.00						
Styrene	< 1.00		µg/l	1.00						
1,1,1,2-Tetrachloroethane	< 1.00		µg/l	1.00						

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1222562 - SW846 5030 Water MS										
Blank (1222562-BLK1)						Prepared & Analyzed: 18-Sep-12				
1,1,2,2-Tetrachloroethane	< 0.50		µg/l	0.50						
Tetrachloroethene	< 1.00		µg/l	1.00						
Toluene	< 1.00		µg/l	1.00						
1,2,3-Trichlorobenzene	< 1.00		µg/l	1.00						
1,2,4-Trichlorobenzene	< 1.00		µg/l	1.00						
1,3,5-Trichlorobenzene	< 1.00		µg/l	1.00						
1,1,1-Trichloroethane	< 1.00		µg/l	1.00						
1,1,2-Trichloroethane	< 1.00		µg/l	1.00						
Trichloroethene	< 1.00		µg/l	1.00						
Trichlorofluoromethane (Freon 11)	< 1.00		µg/l	1.00						
1,2,3-Trichloropropane	< 1.00		µg/l	1.00						
1,2,4-Trimethylbenzene	< 1.00		µg/l	1.00						
1,3,5-Trimethylbenzene	< 1.00		µg/l	1.00						
Vinyl chloride	< 1.00		µg/l	1.00						
m,p-Xylene	< 2.00		µg/l	2.00						
o-Xylene	< 1.00		µg/l	1.00						
Tetrahydrofuran	< 2.00		µg/l	2.00						
Ethyl ether	< 1.00		µg/l	1.00						
Tert-amyl methyl ether	< 1.00		µg/l	1.00						
Ethyl tert-butyl ether	< 1.00		µg/l	1.00						
Di-isopropyl ether	< 1.00		µg/l	1.00						
Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0						
1,4-Dioxane	< 20.0		µg/l	20.0						
trans-1,4-Dichloro-2-butene	< 5.00		µg/l	5.00						
Ethanol	< 400		µg/l	400						
Surrogate: 4-Bromofluorobenzene	*50.4*		µg/l		*50.0*		*101*	*70-130*		
Surrogate: Toluene-d8	*50.4*		µg/l		*50.0*		*101*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*51.8*		µg/l		*50.0*		*104*	*70-130*		
Surrogate: Dibromofluoromethane	*48.9*		µg/l		*50.0*		*98*	*70-130*		
LCS (1222562-BS1)						Prepared & Analyzed: 18-Sep-12				
1,1,2-Trichlorotrifluoroethane (Freon 113)	**13.2**	QM9	µg/l		20.0		66	70-130		
Acetone	**20.8**		µg/l		20.0		104	70-130		
Acrylonitrile	**18.2**		µg/l		20.0		91	70-130		
Benzene	**19.0**		µg/l		20.0		95	70-130		
Bromobenzene	**19.4**		µg/l		20.0		97	70-130		
Bromochloromethane	**19.9**		µg/l		20.0		99	70-130		
Bromodichloromethane	**19.3**		µg/l		20.0		97	70-130		
Bromoform	**19.7**		µg/l		20.0		98	70-130		
Bromomethane	**18.6**		µg/l		20.0		93	70-130		
2-Butanone (MEK)	**20.2**		µg/l		20.0		101	70-130		
n-Butylbenzene	**16.9**		µg/l		20.0		84	70-130		
sec-Butylbenzene	**18.1**		µg/l		20.0		91	70-130		
tert-Butylbenzene	**18.3**		µg/l		20.0		92	70-130		
Carbon disulfide	**16.3**		µg/l		20.0		81	70-130		
Carbon tetrachloride	**15.4**		µg/l		20.0		77	70-130		
Chlorobenzene	**19.0**		µg/l		20.0		95	70-130		
Chloroethane	**16.3**		µg/l		20.0		81	70-130		
Chloroform	**19.1**		µg/l		20.0		96	70-130		
Chloromethane	**16.8**		µg/l		20.0		84	70-130		
2-Chlorotoluene	**18.9**		µg/l		20.0		95	70-130		
4-Chlorotoluene	**19.8**		µg/l		20.0		99	70-130		

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1222562 - SW846 5030 Water MS										
LCS (1222562-BS1)						Prepared & Analyzed: 18-Sep-12				
1,2-Dibromo-3-chloropropane	**19.5**		µg/l		20.0		97	70-130		
Dibromochloromethane	**20.1**		µg/l		20.0		100	70-130		
1,2-Dibromoethane (EDB)	**21.2**		µg/l		20.0		106	70-130		
Dibromomethane	**21.0**		µg/l		20.0		105	70-130		
1,2-Dichlorobenzene	**19.3**		µg/l		20.0		96	70-130		
1,3-Dichlorobenzene	**19.8**		µg/l		20.0		99	70-130		
1,4-Dichlorobenzene	**19.0**		µg/l		20.0		95	70-130		
Dichlorodifluoromethane (Freon12)	**11.0**		µg/l		20.0		55	70-130		
1,1-Dichloroethane	**19.1**		µg/l		20.0		96	70-130		
1,2-Dichloroethane	**19.8**		µg/l		20.0		99	70-130		
1,1-Dichloroethene	**15.7**		µg/l		20.0		78	70-130		
cis-1,2-Dichloroethene	**19.3**		µg/l		20.0		97	70-130		
trans-1,2-Dichloroethene	**18.3**		µg/l		20.0		92	70-130		
1,2-Dichloropropane	**19.6**		µg/l		20.0		98	70-130		
1,3-Dichloropropane	**20.2**		µg/l		20.0		101	70-130		
2,2-Dichloropropane	**17.8**		µg/l		20.0		89	70-130		
1,1-Dichloropropene	**17.0**		µg/l		20.0		85	70-130		
cis-1,3-Dichloropropene	**19.9**		µg/l		20.0		100	70-130		
trans-1,3-Dichloropropene	**20.2**		µg/l		20.0		101	70-130		
Ethylbenzene	**19.1**		µg/l		20.0		95	70-130		
Hexachlorobutadiene	**16.8**		µg/l		20.0		84	70-130		
2-Hexanone (MBK)	**19.0**		µg/l		20.0		95	70-130		
Isopropylbenzene	**18.4**		µg/l		20.0		92	70-130		
4-Isopropyltoluene	**18.1**		µg/l		20.0		90	70-130		
Methyl tert-butyl ether	**19.2**		µg/l		20.0		96	70-130		
4-Methyl-2-pentanone (MIBK)	**18.4**		µg/l		20.0		92	70-130		
Methylene chloride	**18.8**		µg/l		20.0		94	70-130		
Naphthalene	**19.3**		µg/l		20.0		97	70-130		
n-Propylbenzene	**18.9**		µg/l		20.0		95	70-130		
Styrene	**21.3**		µg/l		20.0		106	70-130		
1,1,1,2-Tetrachloroethane	**18.9**		µg/l		20.0		95	70-130		
1,1,2,2-Tetrachloroethane	**19.6**		µg/l		20.0		98	70-130		
Tetrachloroethene	**16.9**		µg/l		20.0		84	70-130		
Toluene	**18.8**		µg/l		20.0		94	70-130		
1,2,3-Trichlorobenzene	**19.5**		µg/l		20.0		97	70-130		
1,2,4-Trichlorobenzene	**20.7**		µg/l		20.0		103	70-130		
1,3,5-Trichlorobenzene	**20.0**		µg/l		20.0		100	70-130		
1,1,1-Trichloroethane	**15.8**		µg/l		20.0		79	70-130		
1,1,2-Trichloroethane	**20.1**		µg/l		20.0		100	70-130		
Trichloroethene	**18.6**		µg/l		20.0		93	70-130		
Trichlorofluoromethane (Freon 11)	**13.7**	QM9	µg/l		20.0		68	70-130		
1,2,3-Trichloropropane	**19.2**		µg/l		20.0		96	70-130		
1,2,4-Trimethylbenzene	**20.5**		µg/l		20.0		102	70-130		
1,3,5-Trimethylbenzene	**19.5**		µg/l		20.0		97	70-130		
Vinyl chloride	**14.9**		µg/l		20.0		74	70-130		
m,p-Xylene	**39.2**		µg/l		40.0		98	70-130		
o-Xylene	**19.7**		µg/l		20.0		99	70-130		
Tetrahydrofuran	**19.5**		µg/l		20.0		97	70-130		
Ethyl ether	**19.8**		µg/l		20.0		99	70-130		
Tert-amyl methyl ether	**20.9**		µg/l		20.0		104	70-130		
Ethyl tert-butyl ether	**19.2**		µg/l		20.0		96	70-130		
Di-isopropyl ether	**19.7**		µg/l		20.0		98	70-130		

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1222562 - SW846 5030 Water MS										
LCS (1222562-BS1)						Prepared & Analyzed: 18-Sep-12				
Tert-Butanol / butyl alcohol	**185**		µg/l		200		93	70-130		
1,4-Dioxane	**185**		µg/l		200		93	70-130		
trans-1,4-Dichloro-2-butene	**19.9**		µg/l		20.0		100	70-130		
Ethanol	**410**		µg/l		400		102	70-130		
Surrogate: 4-Bromofluorobenzene	*51.0*		µg/l		*50.0*		*102*	*70-130*		
Surrogate: Toluene-d8	*50.4*		µg/l		*50.0*		*101*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*50.1*		µg/l		*50.0*		*100*	*70-130*		
Surrogate: Dibromofluoromethane	*52.0*		µg/l		*50.0*		*104*	*70-130*		
LCS Dup (1222562-BSD1)						Prepared & Analyzed: 18-Sep-12				
1,1,2-Trichlorotrifluoroethane (Freon 113)	**20.2**	QR5	µg/l		20.0		101	70-130	41	20
Acetone	**20.0**		µg/l		20.0		100	70-130	4	20
Acrylonitrile	**18.6**		µg/l		20.0		93	70-130	2	20
Benzene	**19.4**		µg/l		20.0		97	70-130	2	20
Bromobenzene	**20.3**		µg/l		20.0		101	70-130	4	20
Bromochloromethane	**20.2**		µg/l		20.0		101	70-130	2	20
Bromodichloromethane	**20.2**		µg/l		20.0		101	70-130	4	20
Bromoform	**19.9**		µg/l		20.0		100	70-130	1	20
Bromomethane	**17.5**		µg/l		20.0		88	70-130	6	20
2-Butanone (MEK)	**20.1**		µg/l		20.0		101	70-130	0.4	20
n-Butylbenzene	**20.0**		µg/l		20.0		100	70-130	17	20
sec-Butylbenzene	**21.5**		µg/l		20.0		108	70-130	17	20
tert-Butylbenzene	**20.9**		µg/l		20.0		104	70-130	13	20
Carbon disulfide	**15.0**		µg/l		20.0		75	70-130	8	20
Carbon tetrachloride	**19.0**	QR2	µg/l		20.0		95	70-130	22	20
Chlorobenzene	**19.7**		µg/l		20.0		99	70-130	4	20
Chloroethane	**17.3**		µg/l		20.0		86	70-130	6	20
Chloroform	**20.1**		µg/l		20.0		100	70-130	5	20
Chloromethane	**16.2**		µg/l		20.0		81	70-130	4	20
2-Chlorotoluene	**20.0**		µg/l		20.0		100	70-130	6	20
4-Chlorotoluene	**20.9**		µg/l		20.0		104	70-130	5	20
1,2-Dibromo-3-chloropropane	**19.7**		µg/l		20.0		99	70-130	1	20
Dibromochloromethane	**21.1**		µg/l		20.0		105	70-130	5	20
1,2-Dibromoethane (EDB)	**21.6**		µg/l		20.0		108	70-130	2	20
Dibromomethane	**21.2**		µg/l		20.0		106	70-130	1	20
1,2-Dichlorobenzene	**20.0**		µg/l		20.0		100	70-130	3	20
1,3-Dichlorobenzene	**21.0**		µg/l		20.0		105	70-130	6	20
1,4-Dichlorobenzene	**19.9**		µg/l		20.0		100	70-130	5	20
Dichlorodifluoromethane (Freon12)	**15.1**	QR2	µg/l		20.0		76	70-130	31	20
1,1-Dichloroethane	**19.7**		µg/l		20.0		99	70-130	3	20
1,2-Dichloroethane	**20.1**		µg/l		20.0		100	70-130	1	20
1,1-Dichloroethene	**18.3**		µg/l		20.0		92	70-130	15	20
cis-1,2-Dichloroethene	**20.1**		µg/l		20.0		100	70-130	4	20
trans-1,2-Dichloroethene	**18.5**		µg/l		20.0		93	70-130	1	20
1,2-Dichloropropane	**20.3**		µg/l		20.0		101	70-130	3	20
1,3-Dichloropropane	**20.8**		µg/l		20.0		104	70-130	3	20
2,2-Dichloropropane	**22.1**	QR2	µg/l		20.0		110	70-130	22	20
1,1-Dichloropropene	**19.7**		µg/l		20.0		98	70-130	15	20
cis-1,3-Dichloropropene	**20.4**		µg/l		20.0		102	70-130	2	20
trans-1,3-Dichloropropene	**20.8**		µg/l		20.0		104	70-130	3	20
Ethylbenzene	**20.3**		µg/l		20.0		101	70-130	6	20
Hexachlorobutadiene	**20.7**	QR2	µg/l		20.0		103	70-130	21	20

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1222562 - SW846 5030 Water MS										
LCS Dup (1222562-BSD1)					Prepared & Analyzed: 18-Sep-12					
2-Hexanone (MBK)	**19.6**		µg/l		20.0		98	70-130	3	20
Isopropylbenzene	**20.5**		µg/l		20.0		102	70-130	11	20
4-Isopropyltoluene	**20.7**		µg/l		20.0		103	70-130	14	20
Methyl tert-butyl ether	**20.0**		µg/l		20.0		100	70-130	4	20
4-Methyl-2-pentanone (MIBK)	**19.0**		µg/l		20.0		95	70-130	3	20
Methylene chloride	**18.3**		µg/l		20.0		92	70-130	2	20
Naphthalene	**19.9**		µg/l		20.0		100	70-130	3	20
n-Propylbenzene	**21.4**		µg/l		20.0		107	70-130	12	20
Styrene	**22.0**		µg/l		20.0		110	70-130	4	20
1,1,1,2-Tetrachloroethane	**19.8**		µg/l		20.0		99	70-130	4	20
1,1,2,2-Tetrachloroethane	**20.7**		µg/l		20.0		103	70-130	5	20
Tetrachloroethene	**19.0**		µg/l		20.0		95	70-130	12	20
Toluene	**19.5**		µg/l		20.0		97	70-130	3	20
1,2,3-Trichlorobenzene	**20.6**		µg/l		20.0		103	70-130	5	20
1,2,4-Trichlorobenzene	**22.0**		µg/l		20.0		110	70-130	6	20
1,3,5-Trichlorobenzene	**21.8**		µg/l		20.0		109	70-130	9	20
1,1,1-Trichloroethane	**18.7**		µg/l		20.0		93	70-130	17	20
1,1,2-Trichloroethane	**20.9**		µg/l		20.0		104	70-130	4	20
Trichloroethene	**19.9**		µg/l		20.0		100	70-130	7	20
Trichlorofluoromethane (Freon 11)	**19.0**	QR5	µg/l		20.0		95	70-130	32	20
1,2,3-Trichloropropane	**19.8**		µg/l		20.0		99	70-130	3	20
1,2,4-Trimethylbenzene	**21.7**		µg/l		20.0		108	70-130	6	20
1,3,5-Trimethylbenzene	**21.1**		µg/l		20.0		105	70-130	8	20
Vinyl chloride	**17.2**		µg/l		20.0		86	70-130	15	20
m,p-Xylene	**40.9**		µg/l		40.0		102	70-130	4	20
o-Xylene	**20.6**		µg/l		20.0		103	70-130	4	20
Tetrahydrofuran	**19.3**		µg/l		20.0		97	70-130	0.7	20
Ethyl ether	**19.3**		µg/l		20.0		96	70-130	3	20
Tert-amyl methyl ether	**21.5**		µg/l		20.0		108	70-130	3	20
Ethyl tert-butyl ether	**20.0**		µg/l		20.0		100	70-130	4	20
Di-isopropyl ether	**20.4**		µg/l		20.0		102	70-130	4	20
Tert-Butanol / butyl alcohol	**197**		µg/l		200		99	70-130	6	20
1,4-Dioxane	**188**		µg/l		200		94	70-130	1	20
trans-1,4-Dichloro-2-butene	**21.5**		µg/l		20.0		108	70-130	8	20
Ethanol	**409**		µg/l		400		102	70-130	0.1	20
Surrogate: 4-Bromofluorobenzene	*51.7*		µg/l		*50.0*		*103*	*70-130*		
Surrogate: Toluene-d8	*50.9*		µg/l		*50.0*		*102*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*50.4*		µg/l		*50.0*		*101*	*70-130*		
Surrogate: Dibromofluoromethane	*52.6*		µg/l		*50.0*		*105*	*70-130*		

Semivolatile Organic Compounds by GCMS - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1221809 - SW846 3510C										
Blank (1221809-BLK1)					Prepared & Analyzed: 11-Sep-12					
Acenaphthene	< 5.00		µg/l	5.00						
Acenaphthylene	< 5.00		µg/l	5.00						
Aniline	< 5.00		µg/l	5.00						
Anthracene	< 5.00		µg/l	5.00						
Azobenzene/Diphenyldiazine	< 5.00		µg/l	5.00						
Benzidine	< 5.00		µg/l	5.00						
Benzo (a) anthracene	< 5.00		µg/l	5.00						
Benzo (a) pyrene	< 5.00		µg/l	5.00						
Benzo (b) fluoranthene	< 5.00		µg/l	5.00						
Benzo (g,h,i) perylene	< 5.00		µg/l	5.00						
Benzo (k) fluoranthene	< 5.00		µg/l	5.00						
Benzoic acid	< 5.00		µg/l	5.00						
Benzyl alcohol	< 5.00		µg/l	5.00						
Bis(2-chloroethoxy)methane	< 5.00		µg/l	5.00						
Bis(2-chloroethyl)ether	< 5.00		µg/l	5.00						
Bis(2-chloroisopropyl)ether	< 5.00		µg/l	5.00						
Bis(2-ethylhexyl)phthalate	< 5.00		µg/l	5.00						
4-Bromophenyl phenyl ether	< 5.00		µg/l	5.00						
Butyl benzyl phthalate	< 5.00		µg/l	5.00						
Carbazole	< 5.00		µg/l	5.00						
4-Chloro-3-methylphenol	< 5.00		µg/l	5.00						
4-Chloroaniline	< 5.00		µg/l	5.00						
2-Chloronaphthalene	< 5.00		µg/l	5.00						
2-Chlorophenol	< 5.00		µg/l	5.00						
4-Chlorophenyl phenyl ether	< 5.00		µg/l	5.00						
Chrysene	< 5.00		µg/l	5.00						
Dibenzo (a,h) anthracene	< 5.00		µg/l	5.00						
Dibenzofuran	< 5.00		µg/l	5.00						
1,2-Dichlorobenzene	< 5.00		µg/l	5.00						
1,3-Dichlorobenzene	< 5.00		µg/l	5.00						
1,4-Dichlorobenzene	< 5.00		µg/l	5.00						
3,3'-Dichlorobenzidine	< 5.00		µg/l	5.00						
2,4-Dichlorophenol	< 5.00		µg/l	5.00						
Diethyl phthalate	< 5.00		µg/l	5.00						
Dimethyl phthalate	< 5.00		µg/l	5.00						
2,4-Dimethylphenol	< 5.00		µg/l	5.00						
Di-n-butyl phthalate	< 5.00		µg/l	5.00						
4,6-Dinitro-2-methylphenol	< 5.00		µg/l	5.00						
2,4-Dinitrophenol	< 5.00		µg/l	5.00						
2,4-Dinitrotoluene	< 5.00		µg/l	5.00						
2,6-Dinitrotoluene	< 5.00		µg/l	5.00						
Di-n-octyl phthalate	< 5.00		µg/l	5.00						
Fluoranthene	< 5.00		µg/l	5.00						
Fluorene	< 5.00		µg/l	5.00						
Hexachlorobenzene	< 5.00		µg/l	5.00						
Hexachlorobutadiene	< 5.00		µg/l	5.00						
Hexachlorocyclopentadiene	< 5.00		µg/l	5.00						
Hexachloroethane	< 5.00		µg/l	5.00						
Indeno (1,2,3-cd) pyrene	< 5.00		µg/l	5.00						
Isophorone	< 5.00		µg/l	5.00						
2-Methylnaphthalene	< 5.00		µg/l	5.00						
2-Methylphenol	< 5.00		µg/l	5.00						

Semivolatile Organic Compounds by GCMS - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1221809 - SW846 3510C										
Blank (1221809-BLK1)						Prepared & Analyzed: 11-Sep-12				
3 & 4-Methylphenol	< 10.0		µg/l	10.0						
Naphthalene	< 5.00		µg/l	5.00						
2-Nitroaniline	< 5.00		µg/l	5.00						
3-Nitroaniline	< 5.00		µg/l	5.00						
4-Nitroaniline	< 20.0		µg/l	20.0						
Nitrobenzene	< 5.00		µg/l	5.00						
2-Nitrophenol	< 5.00		µg/l	5.00						
4-Nitrophenol	< 20.0		µg/l	20.0						
N-Nitrosodimethylamine	< 5.00		µg/l	5.00						
N-Nitrosodi-n-propylamine	< 5.00		µg/l	5.00						
N-Nitrosodiphenylamine	< 5.00		µg/l	5.00						
Pentachlorophenol	< 20.0		µg/l	20.0						
Phenanthrene	< 5.00		µg/l	5.00						
Phenol	< 5.00		µg/l	5.00						
Pyrene	< 5.00		µg/l	5.00						
Pyridine	< 5.00		µg/l	5.00						
1,2,4-Trichlorobenzene	< 5.00		µg/l	5.00						
1-Methylnaphthalene	< 5.00		µg/l	5.00						
2,4,5-Trichlorophenol	< 5.00		µg/l	5.00						
2,4,6-Trichlorophenol	< 5.00		µg/l	5.00						
Pentachloronitrobenzene	< 5.00		µg/l	5.00						
1,2,4,5-Tetrachlorobenzene	< 5.00		µg/l	5.00						
Surrogate: 2-Fluorobiphenyl	*31.8*		µg/l		*50.0*		*64*	*30-130*		
Surrogate: 2-Fluorophenol	*20.3*		µg/l		*50.0*		*41*	*15-110*		
Surrogate: Nitrobenzene-d5	*34.2*		µg/l		*50.0*		*68*	*30-130*		
Surrogate: Phenol-d5	*13.5*		µg/l		*50.0*		*27*	*15-110*		
Surrogate: Terphenyl-dl4	*40.7*		µg/l		*50.0*		*81*	*30-130*		
Surrogate: 2,4,6-Tribromophenol	*34.0*		µg/l		*50.0*		*68*	*15-110*		
LCS (1221809-BS1)						Prepared & Analyzed: 11-Sep-12				
Acenaphthene	**32.2**		µg/l	5.00	50.0		64	40-140		
Acenaphthylene	**31.3**		µg/l	5.00	50.0		63	40-140		
Aniline	**26.2**		µg/l	5.00	50.0		52	40-140		
Anthracene	**35.9**		µg/l	5.00	50.0		72	40-140		
Azobenzene/Diphenyldiazine	**35.6**		µg/l	5.00	50.0		71	40-140		
Benzidine	< 5.00	QC2	µg/l	5.00	50.0			40-140		
Benzo (a) anthracene	**31.0**		µg/l	5.00	50.0		62	40-140		
Benzo (a) pyrene	**33.3**		µg/l	5.00	50.0		67	40-140		
Benzo (b) fluoranthene	**31.3**		µg/l	5.00	50.0		63	40-140		
Benzo (g,h,i) perylene	**32.7**		µg/l	5.00	50.0		65	40-140		
Benzo (k) fluoranthene	**37.6**		µg/l	5.00	50.0		75	40-140		
Benzoic acid	**9.03**	QC2	µg/l	5.00	50.0		18	30-130		
Benzyl alcohol	**24.3**		µg/l	5.00	50.0		49	40-140		
Bis(2-chloroethoxy)methane	**25.9**		µg/l	5.00	50.0		52	40-140		
Bis(2-chloroethyl)ether	**32.3**		µg/l	5.00	50.0		65	40-140		
Bis(2-chloroisopropyl)ether	**32.0**		µg/l	5.00	50.0		64	40-140		
Bis(2-ethylhexyl)phthalate	**32.5**		µg/l	5.00	50.0		65	40-140		
4-Bromophenyl phenyl ether	**31.4**		µg/l	5.00	50.0		63	40-140		
Butyl benzyl phthalate	**31.2**		µg/l	5.00	50.0		62	40-140		
Carbazole	**32.0**		µg/l	5.00	50.0		64	40-140		
4-Chloro-3-methylphenol	**35.0**		µg/l	5.00	50.0		70	30-130		
4-Chloroaniline	**28.3**		µg/l	5.00	50.0		57	40-140		

Semivolatile Organic Compounds by GCMS - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1221809 - SW846 3510C										
LCS (1221809-BS1)					Prepared & Analyzed: 11-Sep-12					
2-Chloronaphthalene	**29.7**		µg/l	5.00	50.0		59	40-140		
2-Chlorophenol	**31.1**		µg/l	5.00	50.0		62	30-130		
4-Chlorophenyl phenyl ether	**31.6**		µg/l	5.00	50.0		63	40-140		
Chrysene	**31.7**		µg/l	5.00	50.0		63	40-140		
Dibenzo (a,h) anthracene	**35.4**		µg/l	5.00	50.0		71	40-140		
Dibenzofuran	**31.4**		µg/l	5.00	50.0		63	40-140		
1,2-Dichlorobenzene	**28.6**		µg/l	5.00	50.0		57	40-140		
1,3-Dichlorobenzene	**25.1**		µg/l	5.00	50.0		50	40-140		
1,4-Dichlorobenzene	**30.0**		µg/l	5.00	50.0		60	40-140		
3,3'-Dichlorobenzidine	**36.6**		µg/l	5.00	50.0		73	40-140		
2,4-Dichlorophenol	**33.2**		µg/l	5.00	50.0		66	30-130		
Diethyl phthalate	**35.8**		µg/l	5.00	50.0		72	40-140		
Dimethyl phthalate	**32.0**		µg/l	5.00	50.0		64	40-140		
2,4-Dimethylphenol	**31.1**		µg/l	5.00	50.0		62	30-130		
Di-n-butyl phthalate	**35.2**		µg/l	5.00	50.0		70	40-140		
4,6-Dinitro-2-methylphenol	**30.7**		µg/l	5.00	50.0		61	30-130		
2,4-Dinitrophenol	**20.4**		µg/l	5.00	50.0		41	30-130		
2,4-Dinitrotoluene	**32.1**		µg/l	5.00	50.0		64	40-140		
2,6-Dinitrotoluene	**32.2**		µg/l	5.00	50.0		64	40-140		
Di-n-octyl phthalate	**36.4**		µg/l	5.00	50.0		73	40-140		
Fluoranthene	**34.3**		µg/l	5.00	50.0		69	40-140		
Fluorene	**33.8**		µg/l	5.00	50.0		68	40-140		
Hexachlorobenzene	**34.8**		µg/l	5.00	50.0		70	40-140		
Hexachlorobutadiene	**28.3**		µg/l	5.00	50.0		57	40-140		
Hexachlorocyclopentadiene	**27.0**		µg/l	5.00	50.0		54	40-140		
Hexachloroethane	**31.0**		µg/l	5.00	50.0		62	40-140		
Indeno (1,2,3-cd) pyrene	**32.9**		µg/l	5.00	50.0		66	40-140		
Isophorone	**31.5**		µg/l	5.00	50.0		63	40-140		
2-Methylnaphthalene	**33.1**		µg/l	5.00	50.0		66	40-140		
2-Methylphenol	**29.6**		µg/l	5.00	50.0		59	30-130		
3 & 4-Methylphenol	**27.7**		µg/l	10.0	50.0		55	30-130		
Naphthalene	**30.3**		µg/l	5.00	50.0		61	40-140		
2-Nitroaniline	**28.6**		µg/l	5.00	50.0		57	40-140		
3-Nitroaniline	**29.0**		µg/l	5.00	50.0		58	40-140		
4-Nitroaniline	**26.8**		µg/l	20.0	50.0		54	40-140		
Nitrobenzene	**33.8**		µg/l	5.00	50.0		68	40-140		
2-Nitrophenol	**32.0**		µg/l	5.00	50.0		64	30-130		
4-Nitrophenol	**16.8**		µg/l	20.0	50.0		34	30-130		
N-Nitrosodimethylamine	**18.0**	QC2	µg/l	5.00	50.0		36	40-140		
N-Nitrosodi-n-propylamine	**30.3**		µg/l	5.00	50.0		61	40-140		
N-Nitrosodiphenylamine	**37.7**		µg/l	5.00	50.0		75	40-140		
Pentachlorophenol	**20.0**		µg/l	20.0	50.0		40	30-130		
Phenanthrene	**32.3**		µg/l	5.00	50.0		65	40-140		
Phenol	**16.1**		µg/l	5.00	50.0		32	30-130		
Pyrene	**31.7**		µg/l	5.00	50.0		63	40-140		
Pyridine	**12.8**	QC2	µg/l	5.00	50.0		26	40-140		
1,2,4-Trichlorobenzene	**29.5**		µg/l	5.00	50.0		59	40-140		
1-Methylnaphthalene	**30.3**		µg/l	5.00	50.0		61	40-140		
2,4,5-Trichlorophenol	**35.8**		µg/l	5.00	50.0		72	30-130		
2,4,6-Trichlorophenol	**29.5**		µg/l	5.00	50.0		59	30-130		
Pentachloronitrobenzene	**42.4**		µg/l	5.00	50.0		85	40-140		
1,2,4,5-Tetrachlorobenzene	**32.0**		µg/l	5.00	50.0		64	40-140		

Semivolatile Organic Compounds by GCMS - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1221809 - SW846 3510C										
LCS (1221809-BS1)					Prepared & Analyzed: 11-Sep-12					
Surrogate: 2-Fluorobiphenyl	*31.8*		µg/l		*50.0*		*64*	*30-130*		
Surrogate: 2-Fluorophenol	*15.8*		µg/l		*50.0*		*32*	*15-110*		
Surrogate: Nitrobenzene-d5	*33.4*		µg/l		*50.0*		*67*	*30-130*		
Surrogate: Phenol-d5	*12.0*		µg/l		*50.0*		*24*	*15-110*		
Surrogate: Terphenyl-dl4	*36.8*		µg/l		*50.0*		*74*	*30-130*		
Surrogate: 2,4,6-Tribromophenol	*34.1*		µg/l		*50.0*		*68*	*15-110*		
LCS Dup (1221809-BSD1)					Prepared & Analyzed: 11-Sep-12					
Acenaphthene	**32.2**		µg/l	5.00	50.0		64	40-140	0.1	20
Acenaphthylene	**31.4**		µg/l	5.00	50.0		63	40-140	0.5	20
Aniline	**25.4**		µg/l	5.00	50.0		51	40-140	3	20
Anthracene	**34.5**		µg/l	5.00	50.0		69	40-140	4	20
Azobenzene/Diphenyldiazine	**34.5**		µg/l	5.00	50.0		69	40-140	3	20
Benzidine	< 5.00	QC2	µg/l	5.00	50.0			40-140		20
Benzo (a) anthracene	**29.9**		µg/l	5.00	50.0		60	40-140	3	20
Benzo (a) pyrene	**33.0**		µg/l	5.00	50.0		66	40-140	0.6	20
Benzo (b) fluoranthene	**31.5**		µg/l	5.00	50.0		63	40-140	0.5	20
Benzo (g,h,i) perylene	**32.7**		µg/l	5.00	50.0		65	40-140	0.07	20
Benzo (k) fluoranthene	**37.7**		µg/l	5.00	50.0		75	40-140	0.1	20
Benzoic acid	**9.78**	QC2	µg/l	5.00	50.0		20	30-130	8	20
Benzyl alcohol	**23.4**		µg/l	5.00	50.0		47	40-140	4	20
Bis(2-chloroethoxy)methane	**24.7**		µg/l	5.00	50.0		49	40-140	5	20
Bis(2-chloroethyl)ether	**31.5**		µg/l	5.00	50.0		63	40-140	2	20
Bis(2-chloroisopropyl)ether	**31.0**		µg/l	5.00	50.0		62	40-140	3	20
Bis(2-ethylhexyl)phthalate	**31.2**		µg/l	5.00	50.0		62	40-140	4	20
4-Bromophenyl phenyl ether	**30.2**		µg/l	5.00	50.0		60	40-140	4	20
Butyl benzyl phthalate	**30.2**		µg/l	5.00	50.0		60	40-140	3	20
Carbazole	**30.6**		µg/l	5.00	50.0		61	40-140	4	20
4-Chloro-3-methylphenol	**34.3**		µg/l	5.00	50.0		69	30-130	2	20
4-Chloroaniline	**27.8**		µg/l	5.00	50.0		56	40-140	2	20
2-Chloronaphthalene	**30.0**		µg/l	5.00	50.0		60	40-140	0.8	20
2-Chlorophenol	**29.5**		µg/l	5.00	50.0		59	30-130	5	20
4-Chlorophenyl phenyl ether	**31.6**		µg/l	5.00	50.0		63	40-140	0.01	20
Chrysene	**31.0**		µg/l	5.00	50.0		62	40-140	2	20
Dibenzo (a,h) anthracene	**35.8**		µg/l	5.00	50.0		72	40-140	1	20
Dibenzofuran	**31.4**		µg/l	5.00	50.0		63	40-140	0.04	20
1,2-Dichlorobenzene	**28.5**		µg/l	5.00	50.0		57	40-140	0.5	20
1,3-Dichlorobenzene	**25.5**		µg/l	5.00	50.0		51	40-140	2	20
1,4-Dichlorobenzene	**30.1**		µg/l	5.00	50.0		60	40-140	0.4	20
3,3'-Dichlorobenzidine	**35.1**		µg/l	5.00	50.0		70	40-140	4	20
2,4-Dichlorophenol	**32.1**		µg/l	5.00	50.0		64	30-130	3	20
Diethyl phthalate	**35.4**		µg/l	5.00	50.0		71	40-140	1	20
Dimethyl phthalate	**31.4**		µg/l	5.00	50.0		63	40-140	2	20
2,4-Dimethylphenol	**30.1**		µg/l	5.00	50.0		60	30-130	3	20
Di-n-butyl phthalate	**34.2**		µg/l	5.00	50.0		68	40-140	3	20
4,6-Dinitro-2-methylphenol	**29.8**		µg/l	5.00	50.0		60	30-130	3	20
2,4-Dinitrophenol	**21.0**		µg/l	5.00	50.0		42	30-130	3	20
2,4-Dinitrotoluene	**32.2**		µg/l	5.00	50.0		64	40-140	0.2	20
2,6-Dinitrotoluene	**31.3**		µg/l	5.00	50.0		63	40-140	3	20
Di-n-octyl phthalate	**36.1**		µg/l	5.00	50.0		72	40-140	0.9	20
Fluoranthene	**33.1**		µg/l	5.00	50.0		66	40-140	3	20
Fluorene	**33.2**		µg/l	5.00	50.0		66	40-140	2	20

Semivolatile Organic Compounds by GCMS - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1221809 - SW846 3510C										
LCS Dup (1221809-BSD1)					Prepared & Analyzed: 11-Sep-12					
Hexachlorobenzene	**33.6**		µg/l	5.00	50.0		67	40-140	3	20
Hexachlorobutadiene	**29.8**		µg/l	5.00	50.0		60	40-140	5	20
Hexachlorocyclopentadiene	**28.6**		µg/l	5.00	50.0		57	40-140	6	20
Hexachloroethane	**32.1**		µg/l	5.00	50.0		64	40-140	3	20
Indeno (1,2,3-cd) pyrene	**32.9**		µg/l	5.00	50.0		66	40-140	0.06	20
Isophorone	**30.1**		µg/l	5.00	50.0		60	40-140	5	20
2-Methylnaphthalene	**34.0**		µg/l	5.00	50.0		68	40-140	3	20
2-Methylphenol	**28.3**		µg/l	5.00	50.0		57	30-130	5	20
3 & 4-Methylphenol	**26.4**		µg/l	10.0	50.0		53	30-130	4	20
Naphthalene	**30.4**		µg/l	5.00	50.0		61	40-140	0.1	20
2-Nitroaniline	**28.3**		µg/l	5.00	50.0		57	40-140	1	20
3-Nitroaniline	**28.6**		µg/l	5.00	50.0		57	40-140	1	20
4-Nitroaniline	**25.9**		µg/l	20.0	50.0		52	40-140	3	20
Nitrobenzene	**32.8**		µg/l	5.00	50.0		66	40-140	3	20
2-Nitrophenol	**30.6**		µg/l	5.00	50.0		61	30-130	5	20
4-Nitrophenol	**17.8**		µg/l	20.0	50.0		36	30-130	6	20
N-Nitrosodimethylamine	**17.0**	QC2	µg/l	5.00	50.0		34	40-140	6	20
N-Nitrosodi-n-propylamine	**29.3**		µg/l	5.00	50.0		59	40-140	4	20
N-Nitrosodiphenylamine	**36.0**		µg/l	5.00	50.0		72	40-140	4	20
Pentachlorophenol	**20.7**		µg/l	20.0	50.0		41	30-130	3	20
Phenanthrene	**31.2**		µg/l	5.00	50.0		62	40-140	3	20
Phenol	**15.9**		µg/l	5.00	50.0		32	30-130	1	20
Pyrene	**30.3**		µg/l	5.00	50.0		61	40-140	4	20
Pyridine	**12.0**	QC2	µg/l	5.00	50.0		24	40-140	7	20
1,2,4-Trichlorobenzene	**30.1**		µg/l	5.00	50.0		60	40-140	2	20
1-Methylnaphthalene	**30.6**		µg/l	5.00	50.0		61	40-140	1	20
2,4,5-Trichlorophenol	**35.3**		µg/l	5.00	50.0		71	30-130	2	20
2,4,6-Trichlorophenol	**28.5**		µg/l	5.00	50.0		57	30-130	3	20
Pentachloronitrobenzene	**41.5**		µg/l	5.00	50.0		83	40-140	2	20
1,2,4,5-Tetrachlorobenzene	**33.1**		µg/l	5.00	50.0		66	40-140	4	20
Surrogate: 2-Fluorobiphenyl	*32.2*		µg/l		*50.0*		*64*	*30-130*		
Surrogate: 2-Fluorophenol	*16.1*		µg/l		*50.0*		*32*	*15-110*		
Surrogate: Nitrobenzene-d5	*33.7*		µg/l		*50.0*		*67*	*30-130*		
Surrogate: Phenol-d5	*12.2*		µg/l		*50.0*		*24*	*15-110*		
Surrogate: Terphenyl-dl4	*36.6*		µg/l		*50.0*		*73*	*30-130*		
Surrogate: 2,4,6-Tribromophenol	*34.5*		µg/l		*50.0*		*69*	*15-110*		

Semivolatile Organic Compounds by GC - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1221822 - SW846 3510C										
Blank (1221822-BLK1)					Prepared: 11-Sep-12 Analyzed: 12-Sep-12					
Aroclor-1016	< 0.200		µg/l	0.200						
Aroclor-1016 [2C]	< 0.200		µg/l	0.200						
Aroclor-1221	< 0.200		µg/l	0.200						
Aroclor-1221 [2C]	< 0.200		µg/l	0.200						
Aroclor-1232	< 0.200		µg/l	0.200						
Aroclor-1232 [2C]	< 0.200		µg/l	0.200						
Aroclor-1242	< 0.200		µg/l	0.200						
Aroclor-1242 [2C]	< 0.200		µg/l	0.200						
Aroclor-1248	< 0.200		µg/l	0.200						
Aroclor-1248 [2C]	< 0.200		µg/l	0.200						
Aroclor-1254	< 0.200		µg/l	0.200						
Aroclor-1254 [2C]	< 0.200		µg/l	0.200						
Aroclor-1260	< 0.200		µg/l	0.200						
Aroclor-1260 [2C]	< 0.200		µg/l	0.200						
Aroclor-1262	< 0.200		µg/l	0.200						
Aroclor-1262 [2C]	< 0.200		µg/l	0.200						
Aroclor-1268	< 0.200		µg/l	0.200						
Aroclor-1268 [2C]	< 0.200		µg/l	0.200						
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	*0.150*		µg/l		*0.200*		*75*	*30-150*		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C]	*0.150*		µg/l		*0.200*		*75*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr)	*0.210*		µg/l		*0.200*		*105*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr) [2C]	*0.210*		µg/l		*0.200*		*105*	*30-150*		
LCS (1221822-BS1)					Prepared: 11-Sep-12 Analyzed: 12-Sep-12					
Aroclor-1016	**2.23**		µg/l	0.200	2.50		89	40-140		
Aroclor-1016 [2C]	**2.29**		µg/l	0.200	2.50		92	40-140		
Aroclor-1260	**2.27**		µg/l	0.200	2.50		91	40-140		
Aroclor-1260 [2C]	**2.15**		µg/l	0.200	2.50		86	40-140		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	*0.150*		µg/l		*0.200*		*75*	*30-150*		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C]	*0.150*		µg/l		*0.200*		*75*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr)	*0.220*		µg/l		*0.200*		*110*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr) [2C]	*0.200*		µg/l		*0.200*		*100*	*30-150*		
LCS Dup (1221822-BSD1)					Prepared: 11-Sep-12 Analyzed: 12-Sep-12					
Aroclor-1016	**2.26**		µg/l	0.200	2.50		90	40-140	1	20
Aroclor-1016 [2C]	**2.30**		µg/l	0.200	2.50		92	40-140	0.4	20
Aroclor-1260	**2.26**		µg/l	0.200	2.50		90	40-140	0.4	20
Aroclor-1260 [2C]	**2.20**		µg/l	0.200	2.50		88	40-140	2	20
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	*0.150*		µg/l		*0.200*		*75*	*30-150*		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C]	*0.150*		µg/l		*0.200*		*75*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr)	*0.210*		µg/l		*0.200*		*105*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr) [2C]	*0.200*		µg/l		*0.200*		*100*	*30-150*		

TCLP Metals by EPA 1311 & 6000/7000 Series Methods - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1222390 - SW846 3010A										
Blank (1222390-BLK1)					Prepared & Analyzed: 17-Sep-12					
Lead	< 0.0150		mg/l	0.0150						
Selenium	< 0.0300		mg/l	0.0300						
Chromium	< 0.0100		mg/l	0.0100						
Arsenic	< 0.0080		mg/l	0.0080						
Cadmium	< 0.0050		mg/l	0.0050						
Silver	< 0.0100		mg/l	0.0100						
Barium	< 0.0100		mg/l	0.0100						
LCS (1222390-BS1)					Prepared & Analyzed: 17-Sep-12					
Lead	**2.52**		mg/l	0.0150	2.50		101	85-115		
Selenium	**2.60**		mg/l	0.0300	2.50		104	85-115		
Silver	**2.51**		mg/l	0.0100	2.50		100	85-115		
Arsenic	**2.66**		mg/l	0.0080	2.50		106	85-115		
Cadmium	**2.67**		mg/l	0.0050	2.50		107	85-115		
Chromium	**2.60**		mg/l	0.0100	2.50		104	85-115		
Barium	**2.67**		mg/l	0.0100	2.50		107	85-115		
LCS Dup (1222390-BSD1)					Prepared & Analyzed: 17-Sep-12					
Selenium	**2.60**		mg/l	0.0300	2.50		104	85-115	0.2	20
Lead	**2.52**		mg/l	0.0150	2.50		101	85-115	0.3	20
Arsenic	**2.66**		mg/l	0.0080	2.50		107	85-115	0.08	20
Chromium	**2.58**		mg/l	0.0100	2.50		103	85-115	0.5	20
Silver	**2.49**		mg/l	0.0100	2.50		100	85-115	0.8	104
Cadmium	**2.67**		mg/l	0.0050	2.50		107	85-115	0.2	20
Barium	**2.65**		mg/l	0.0100	2.50		106	85-115	0.8	20
Duplicate (1222390-DUP1)			Source: SB55890-01			Prepared: 17-Sep-12 Analyzed: 18-Sep-12				
Selenium	< 0.0300		mg/l	0.0300		BRL				20
Lead	**0.0607**		mg/l	0.0150		0.0631			4	20
Silver	< 0.0100		mg/l	0.0100		BRL				20
Chromium	< 0.0100		mg/l	0.0100		BRL				20
Cadmium	**0.0010**	J	mg/l	0.0050		0.0011			10	20
Arsenic	**0.0070**	J	mg/l	0.0080		BRL				20
Barium	**0.423**		mg/l	0.0100		0.430			2	20
Matrix Spike (1222390-MS1)			Source: SB55890-01			Prepared: 17-Sep-12 Analyzed: 18-Sep-12				
Selenium	**2.62**		mg/l	0.0300	2.50	BRL	105	75-125		
Lead	**2.49**		mg/l	0.0150	2.50	0.0631	97	75-125		
Silver	**2.46**		mg/l	0.0100	2.50	BRL	99	75-125		
Chromium	**2.51**		mg/l	0.0100	2.50	BRL	100	75-125		
Cadmium	**2.59**		mg/l	0.0050	2.50	0.0011	104	75-125		
Arsenic	**2.68**		mg/l	0.0080	2.50	BRL	107	75-125		
Barium	**3.03**		mg/l	0.0100	2.50	0.430	104	75-125		
Matrix Spike Dup (1222390-MSD1)			Source: SB55890-01			Prepared: 17-Sep-12 Analyzed: 18-Sep-12				
Lead	**2.52**		mg/l	0.0150	2.50	0.0631	98	75-125	1	20
Selenium	**2.64**		mg/l	0.0300	2.50	BRL	106	75-125	0.9	20
Chromium	**2.54**		mg/l	0.0100	2.50	BRL	102	75-125	1	20
Silver	**2.50**		mg/l	0.0100	2.50	BRL	100	75-125	1	20
Arsenic	**2.70**		mg/l	0.0080	2.50	BRL	108	75-125	0.9	20
Cadmium	**2.62**		mg/l	0.0050	2.50	0.0011	105	75-125	0.9	20
Barium	**3.06**		mg/l	0.0100	2.50	0.430	105	75-125	1	20
Post Spike (1222390-PS1)			Source: SB55890-01			Prepared: 17-Sep-12 Analyzed: 18-Sep-12				
Lead	**2.56**		mg/l	0.0150	2.50	0.0631	100	80-120		
Selenium	**2.69**		mg/l	0.0300	2.50	BRL	108	80-120		
Silver	**2.55**		mg/l	0.0100	2.50	BRL	102	80-120		

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TCLP Metals by EPA 1311 & 6000/7000 Series Methods - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1222390 - SW846 3010A										
Post Spike (1222390-PS1)			Source: SB55890-01		Prepared: 17-Sep-12 Analyzed: 18-Sep-12					
Arsenic	**2.75**		mg/l	0.0080	2.50	BRL	110	80-120		
Cadmium	**2.66**		mg/l	0.0050	2.50	0.0011	106	80-120		
Chromium	**2.58**		mg/l	0.0100	2.50	BRL	103	80-120		
Barium	**3.11**		mg/l	0.0100	2.50	0.430	107	80-120		
Batch 1222391 - EPA200/SW7000 Series										
Blank (1222391-BLK1)					Prepared & Analyzed: 17-Sep-12					
Mercury	< 0.00020		mg/l	0.00020						
LCS (1222391-BS1)					Prepared & Analyzed: 17-Sep-12					
Mercury	**0.00506**		mg/l	0.00020	0.00500		101	85-115		
Duplicate (1222391-DUP1)			Source: SB55890-01		Prepared & Analyzed: 17-Sep-12					
Mercury	< 0.00020		mg/l	0.00020		BRL				20
Matrix Spike (1222391-MS1)			Source: SB55890-01		Prepared & Analyzed: 17-Sep-12					
Mercury	**0.00477**		mg/l	0.00020	0.00500	BRL	95	75-125		
Matrix Spike Dup (1222391-MSD1)			Source: SB55890-01		Prepared & Analyzed: 17-Sep-12					
Mercury	**0.00472**		mg/l	0.00020	0.00500	BRL	94	75-125	1	20
Post Spike (1222391-PS1)			Source: SB55890-01		Prepared & Analyzed: 17-Sep-12					
Mercury	**0.00471**		mg/l	0.00020	0.00500	BRL	94	80-120		

General Chemistry Parameters - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1221736 - General Preparation										
Duplicate (1221736-DUP1)			**Source: SB55890-01**			Prepared & Analyzed: 10-Sep-12				
pH	**5.30**		pH Units			5.29			0.2	5
Reference (1221736-SRM1)						Prepared & Analyzed: 10-Sep-12				
pH	**5.99**		pH Units		6.00		100	97.5-102.5		
Reference (1221736-SRM2)						Prepared & Analyzed: 10-Sep-12				
pH	**6.05**		pH Units		6.00		101	97.5-102.5		
Batch 1222066 - General Preparation										
Reference (1222066-SRM1)						Prepared & Analyzed: 12-Sep-12				
Flashpoint	**81**		°F		81.0		100	95-105		
Batch 1222211 - General Preparation										
Blank (1222211-BLK1)						Prepared: 13-Sep-12 Analyzed: 14-Sep-12				
Reactivity	**Nonreactive**		mg/l							
Reactive Cyanide	< 25.0		mg/l	25.0						
Reactive Sulfide	< 50.0		mg/l	50.0						
Duplicate (1222211-DUP1)			**Source: SB55890-01**			Prepared: 13-Sep-12 Analyzed: 14-Sep-12				
Reactivity	**Nonreactive**		mg/l			Nonreactive				200
Reactive Cyanide	< 25.0		mg/l	25.0		BRL				20
Reactive Sulfide	< 50.0		mg/l	50.0		BRL				20
Reference (1222211-SRM1)						Prepared: 13-Sep-12 Analyzed: 14-Sep-12				
Reactive Cyanide	**2.93**		mg/l	25.0	100		3	0-200		
Reference (1222211-SRM2)						Prepared: 13-Sep-12 Analyzed: 14-Sep-12				
Reactive Sulfide	**120**		mg/l	50.0	6700		2	0-200		

Notes and Definitions

D	Data reported from a dilution
GS1	Sample dilution required for high concentration of target analytes to be within the instrument calibration range.
QC2	Analyte out of acceptance range in QC spike but no reportable concentration present in sample.
QM9	The spike recovery for this QC sample is outside the established control limits. The sample results for the QC batch were accepted based on LCS/LCSD or SRM recoveries within the control limits.
QR2	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
QR5	RPD out of acceptance range.
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference
J	Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
pH	The method for pH does not stipulate a specific holding time other than to state that the samples should be analyzed as soon as possible. For aqueous samples the 40 CFR 136 specifies a holding time of 15 minutes from sampling to analysis. Therefore all aqueous pH samples not analyzed in the field are considered out of hold time at the time of sample receipt. All soil samples are analyzed as soon as possible after sample receipt.

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

Matrix Spike: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

Method Blank: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

Method Detection Limit (MDL): The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

Reportable Detection Limit (RDL): The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

Surrogate: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

Continuing Calibration Verification: The calibration relationship established during the initial calibration must be verified at periodic intervals. Concentrations, intervals, and criteria are method specific.

Validated by:
Kimberly Wisk

SD55890

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

CHAIN OF CUSTODY RECORD

Page 1 of 1

Special Handling:
- ☒ Standard TAT - 7 to 10 business days
- ☐ Rush TAT - Date Needed: _____
- All TATs subject to laboratory approval.
- Min. 24-hour notification needed for rushes.
- Samples disposed of after 60 days unless otherwise instructed.

Report To: New England Disposal Technologies Inc
83 Gilmore Drive
Sutton, MA 01590

Telephone #: 508-234-4440
Project Mgr. Lon Cohen

Invoice To: SAME

P.O. No.: _____ RQN: _____

Project No.: 13-13723
Site Name: Former Chromium Process Storage Parcel
Location: Shelton State: CT
Sampler(s): Michael F Sabo

1=$Na_2S_2O_3$ 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid 7=CH_3OH
8= $NaHSO_4$ 9= Deionized Water 10= 11= _____

List preservative code below: 10 | 2 | 10 | 10 | 10 | 10 | 3

QA/QC Reporting Notes:
* additional charges may apply

DW=Drinking Water GW=Groundwater WW=Wastewater
O=Oil SW= Surface Water SO=Soil SL=Sludge A=Air
X1= _____ X2= _____ X3= _____

G=Grab C=Composite

Lab Id:	Sample Id:	Date:	Time:	Type	Matrix	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	TCLP RCRA 8	Total VOC	Total SVOC	pH	Flash	Reactivity	Total PCB
55890-01	Tank Liquid	9/5/2012	9:00A	C	WW	2	4			✓	✓	✓	✓	✓	✓	✓

Containers: # of VOA Vials, # of Amber Glass, # of Clear Glass, # of Plastic
Analyses: TCLP RCRA 8, Total VOC, Total SVOC, pH, Flash, Reactivity, Total PCB

MA DEP MCP CAM Report: Yes☐ No☒
CT DPH RCP Report: Yes☐ No☒

QA/QC Reporting Level
☐ Standard ☐ No QC ☐ DQA*
☐ NY ASP A* ☐ NY ASP B*
☐ NJ Reduced* ☐ NJ Full*
☐ TIER II* ☐ TIER V*
☐ Other _____

State-specific reporting standards:

Relinquished by:	Received by:	Date:	Time:	Temp°C
Michael F Sabo	[signature]	9/7/12	11:35	
	[signature]	9/7/12	18:30	3.1

☐ EDD Format _____
☒ E-mail to lcohen@NEDTinc.com

☐ Ambient ☐ Iced ☒ Refrigerated ☐ Fridge temp ___°C ☐ Freezer temp ___°C

Report Date:
05-Oct-12 16:40

☑ Final Report
☐ Re-Issued Report
☐ Revised Report

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

Laboratory Report

New England Disposal Technologies, Inc
83 Gilmore Drive
Sutton, MA 01590
Attn: Lon Cohen

Project: Frmr Chromium Process Storage - Shelton, CT
Project #: 13-13723

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
SB56741-01	Liquid IDW	Ground Water	21-Sep-12 10:16	21-Sep-12 11:50

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the sample(s) as received.
All applicable NELAC requirements have been met.

Massachusetts # M-MA138/MA1110
Connecticut # PH-0777
Florida # E87600/E87936
Maine # MA138
New Hampshire # 2538
New Jersey # MA011/MA012
New York # 11393/11840
Pennsylvania # 68-04426/68-02924
Rhode Island # 98
USDA # S-51435

Authorized by:

Nicole Leja
Laboratory Director

Spectrum Analytical holds certification in the State of New York for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of New York does not offer certification for all analytes. Please refer to our website for specific certification holdings in each state.
Please note that this report contains 33 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Spectrum Analytical, Inc.

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Please contact the Laboratory or Technical Director at 800-789-9115 with any questions regarding the data contained in this laboratory report.

CASE NARRATIVE:

The samples were received 13.1 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/- 1.0 degrees Celsius was used immediately upon receipt of the samples.

If a Matrix Spike (MS), Matrix Spike Duplicate (MSD) or Duplicate (DUP) was not requested on the Chain of Custody, method criteria may have been fulfilled with a source sample not of this Sample Delivery Group.

These samples do not exhibit the characteristics of reactivity as defined in 40 CFR 261.23, sections (1), (2), (4), and (5); however, Spectrum Analytical, Inc. does not test for detonation, explosive reaction or potential, or forbidden explosives as defined in 40 CFR 261.23, sections (3), (6), (7) and (8).

See below for any non-conformances and issues relating to quality control samples and/or sample analysis/matrix.

SW846 1311/6010C

Laboratory Control Samples:

1223840 BS/BSD

Cadmium percent recoveries (119/119) are outside individual acceptance criteria (85-115), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

Liquid IDW

Chromium percent recoveries (116/116) are outside individual acceptance criteria (85-115), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

Liquid IDW

SW846 8260C

Calibration:

1209040

Analyte quantified by quadratic equation type calibration.

1,2,3-Trichlorobenzene
1,2,4-Trichlorobenzene
Dibromochloromethane
Naphthalene

This affected the following samples:

1224174-BLK1
1224174-BS1
1224174-BSD1
1224174-MS1
1224174-MSD1
Liquid IDW
S211343-ICV1
S212146-CCV1

S211343-ICV1

Analyte percent recovery is outside individual acceptance criteria (80-120).

4-Isopropyltoluene (124%)
cis-1,2-Dichloroethene (126%)
Dichlorodifluoromethane (Freon12) (77%)
n-Butylbenzene (124%)

SW846 8260C

Calibration:

S211343-ICV1

This affected the following samples:

1224174-BLK1
1224174-BS1
1224174-BSD1
1224174-MS1
1224174-MSD1
Liquid IDW
S212146-CCV1

Laboratory Control Samples:

1224174 BS/BSD

Tert-Butanol / butyl alcohol percent recoveries (145/146) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

Liquid IDW

Trichlorofluoromethane (Freon 11) percent recoveries (128/132) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

Liquid IDW

Vinyl chloride percent recoveries (135/153) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

Liquid IDW

Spikes:

1224174-MS1 *Source: SB56741-01*

The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

1,2,3-Trichlorobenzene
1,2,4-Trimethylbenzene
1,3,5-Trimethylbenzene
4-Isopropyltoluene
Carbon disulfide
Chloromethane
Naphthalene

1224174-MSD1 *Source: SB56741-01*

The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

1,2,3-Trichlorobenzene
1,2,4-Trimethylbenzene
1,3,5-Trimethylbenzene
4-Isopropyltoluene
Carbon disulfide
Chloromethane
Ethanol
Naphthalene
Tert-Butanol / butyl alcohol

Samples:

S212146-CCV1

SW846 8260C

Samples:

S212146-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

Tert-Butanol / butyl alcohol (44.7%)
Trichlorofluoromethane (Freon 11) (28.4%)
Vinyl chloride (34.9%)

Analyte percent drift is outside individual acceptance criteria (20), but within overall method allowances.

1,2,3-Trichlorobenzene (-28.4%)
1,2,4-Trichlorobenzene (-20.4%)
Acetone (23.8%)
Naphthalene (-20.5%)

This affected the following samples:

1224174-BLK1
1224174-BS1
1224174-BSD1
1224174-MS1
1224174-MSD1
Liquid IDW

SW846 8270D

Calibration:

1209074

Analyte quantified by quadratic equation type calibration.

2,4-Dinitrophenol
4-Nitrophenol
Benzidine

This affected the following samples:

Liquid IDW
S211925-ICV1
S212200-CCV1

S211317-ICV1

Analyte percent recovery is outside individual acceptance criteria (80-120).

Benzidine (75%)
Bis(2-chloroethoxy)methane (75%)
Pyridine (76%)

This affected the following samples:

1223122-BLK1
1223122-BS1
1223122-BSD1
S211623-CCV1
S211639-CCV1

S211925-ICV1

SW846 8270D

Calibration:

S211925-ICV1

Analyte percent recovery is outside individual acceptance criteria (80-120).

3-Nitroaniline (77%)
4-Chloroaniline (72%)
Benzidine (72%)
Hexachlorobutadiene (78%)

This affected the following samples:

Liquid IDW
S212200-CCV1

Laboratory Control Samples:

1223122 BS/BSD

3-Nitroaniline percent recoveries (75/35) are outside individual acceptance criteria (40-140), but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

Liquid IDW

4-Chloroaniline percent recoveries (67/30) are outside individual acceptance criteria (40-140), but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

Liquid IDW

Benzidine percent recoveries (0/34) are outside individual acceptance criteria (40-140), but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

Liquid IDW

Hexachlorocyclopentadiene percent recoveries (60/31) are outside individual acceptance criteria (40-140), but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

Liquid IDW

Pyridine percent recoveries (18/73) are outside individual acceptance criteria (40-140), but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

Liquid IDW

1223122 BSD

1,2,4,5-Tetrachlorobenzene RPD 23% (20%) is outside individual acceptance criteria, but within overall method allowances.

1,2,4-Trichlorobenzene RPD 23% (20%) is outside individual acceptance criteria, but within overall method allowances.

1,2-Dichlorobenzene RPD 24% (20%) is outside individual acceptance criteria, but within overall method allowances.

1,3-Dichlorobenzene RPD 23% (20%) is outside individual acceptance criteria, but within overall method allowances.

1,4-Dichlorobenzene RPD 25% (20%) is outside individual acceptance criteria, but within overall method allowances.

2,4,6-Trichlorophenol RPD 21% (20%) is outside individual acceptance criteria, but within overall method allowances.

2,4-Dinitrophenol RPD 39% (20%) is outside individual acceptance criteria, but within overall method allowances.

2-Methylphenol RPD 24% (20%) is outside individual acceptance criteria, but within overall method allowances.

SW846 8270D

Laboratory Control Samples:

1223122 BSD

3 & 4-Methylphenol RPD 29% (20%) is outside individual acceptance criteria, but within overall method allowances.

3-Nitroaniline RPD 72% (20%) is outside individual acceptance criteria, but within overall method allowances.

4,6-Dinitro-2-methylphenol RPD 30% (20%) is outside individual acceptance criteria, but within overall method allowances.

4-Chloroaniline RPD 76% (20%) is outside individual acceptance criteria, but within overall method allowances.

4-Chlorophenyl phenyl ether RPD 21% (20%) is outside individual acceptance criteria, but within overall method allowances.

4-Nitrophenol RPD 71% (20%) is outside individual acceptance criteria, but within overall method allowances.

Aniline RPD 30% (20%) is outside individual acceptance criteria, but within overall method allowances.

Benzo (b) fluoranthene RPD 29% (20%) is outside individual acceptance criteria, but within overall method allowances.

Benzo (k) fluoranthene RPD 21% (20%) is outside individual acceptance criteria, but within overall method allowances.

Benzoic acid RPD 77% (20%) is outside individual acceptance criteria, but within overall method allowances.

Bis(2-chloroethyl)ether RPD 27% (20%) is outside individual acceptance criteria, but within overall method allowances.

Di-n-octyl phthalate RPD 37% (20%) is outside individual acceptance criteria, but within overall method allowances.

Hexachlorobutadiene RPD 25% (20%) is outside individual acceptance criteria, but within overall method allowances.

Hexachlorocyclopentadiene RPD 64% (20%) is outside individual acceptance criteria, but within overall method allowances.

Hexachloroethane RPD 22% (20%) is outside individual acceptance criteria, but within overall method allowances.

Nitrobenzene RPD 24% (20%) is outside individual acceptance criteria, but within overall method allowances.

N-Nitrosodimethylamine RPD 53% (20%) is outside individual acceptance criteria, but within overall method allowances.

Phenol RPD 80% (20%) is outside individual acceptance criteria, but within overall method allowances.

Pyridine RPD 121% (20%) is outside individual acceptance criteria, but within overall method allowances.

1223122-BSD1

RPD out of acceptance range. The batch is accepted based upon LCS and/or LCSD recovery.

3-Nitroaniline
4-Chloroaniline
Hexachlorocyclopentadiene

SW846 8270D

Laboratory Control Samples:

1223122-BSD1

The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.

1,2,4,5-Tetrachlorobenzene
1,2,4-Trichlorobenzene
1,2-Dichlorobenzene
1,3-Dichlorobenzene
1,4-Dichlorobenzene
2,4,6-Trichlorophenol
2,4-Dinitrophenol
2-Methylphenol
3 & 4-Methylphenol
4,6-Dinitro-2-methylphenol
4-Chlorophenyl phenyl ether
4-Nitrophenol
Aniline
Benzo (b) fluoranthene
Benzo (k) fluoranthene
Benzoic acid
Bis(2-chloroethyl)ether
Di-n-octyl phthalate
Hexachlorobutadiene
Hexachloroethane
Nitrobenzene
N-Nitrosodimethylamine
Phenol
Pyridine

Samples:

S211623-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

Nitrobenzene (21.8%)

Analyte percent drift is outside individual acceptance criteria (20), but within overall method allowances.

Benzidine (-20.5%)

This affected the following samples:

1223122-BLK1
1223122-BS1

S211639-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

Nitrobenzene (34.9%)

This affected the following samples:

1223122-BSD1

S212200-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

Bis(2-chloroisopropyl)ether (24.4%)

SW846 8270D

Samples:

S212200-CCV1

Analyte percent drift is outside individual acceptance criteria (20), but within overall method allowances.

4-Nitrophenol (29.0%)

This affected the following samples:

Liquid IDW

SW846 8270D SIM

Samples:

S211728-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

Acenaphthene (-22.5%)

This affected the following samples:

1223122-BLK2
1223122-BS2
1223122-BSD2

S211732-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

Acenaphthene (-24.8%)

This affected the following samples:

Liquid IDW

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
Liquid IDW SB56741-01	13-13723	Ground Water	21-Sep-12 10:16	21-Sep-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds													
Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.00		µg/l	1.00	0.65	1	SW846 8260C	03-Oct-12	03-Oct-12	eq	1224174	X
67-64-1	Acetone	**64.7**		µg/l	10.0	2.56	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.50		µg/l	0.50	0.46	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.00		µg/l	1.00	0.67	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.00		µg/l	1.00	0.72	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.00		µg/l	1.00	0.71	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.50		µg/l	0.50	0.48	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.00		µg/l	1.00	0.60	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.00		µg/l	2.00	1.14	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	1.73	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	**8.77**		µg/l	1.00	0.56	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	**2.59**		µg/l	1.00	0.82	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.00		µg/l	1.00	0.74	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.00		µg/l	2.00	0.63	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.00		µg/l	1.00	0.55	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.00		µg/l	1.00	0.65	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.00		µg/l	2.00	1.03	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.00		µg/l	1.00	0.69	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.00		µg/l	2.00	1.47	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.00		µg/l	1.00	0.79	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.00		µg/l	1.00	0.73	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.00		µg/l	2.00	0.93	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.50		µg/l	0.50	0.29	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.50		µg/l	0.50	0.33	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.00		µg/l	1.00	0.67	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.00		µg/l	1.00	0.67	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.00		µg/l	1.00	0.71	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.00		µg/l	1.00	0.62	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.00		µg/l	2.00	0.45	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	**4.41**		µg/l	1.00	0.68	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.00		µg/l	1.00	0.78	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.00		µg/l	1.00	0.49	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.00		µg/l	1.00	0.72	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.00		µg/l	1.00	0.68	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.00		µg/l	1.00	0.71	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.00		µg/l	1.00	0.81	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.00		µg/l	1.00	0.60	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.00		µg/l	1.00	0.64	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.50		µg/l	0.50	0.25	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.50		µg/l	0.50	0.50	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.00		µg/l	1.00	0.73	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.50		µg/l	0.50	0.45	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	0.54	1	"	"	"	"	"	X

This laboratory report is not valid without an authorized signature on the cover page.

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
Liquid IDW SB56741-01	13-13723	Ground Water	21-Sep-12 10:16	21-Sep-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds													
Prepared by method SW846 5030 Water MS													
98-82-8	Isopropylbenzene	< 1.00		µg/l	1.00	0.62	1	SW846 8260C	03-Oct-12	03-Oct-12	eq	1224174	X
99-87-6	4-Isopropyltoluene	**15.7**		µg/l	1.00	0.61	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.00		µg/l	1.00	0.65	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.93	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.00		µg/l	2.00	0.69	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.00		µg/l	1.00	0.33	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.00		µg/l	1.00	0.76	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.00		µg/l	1.00	0.62	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.00		µg/l	1.00	0.63	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.50		µg/l	0.50	0.35	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	**2.64**		µg/l	1.00	0.74	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.00		µg/l	1.00	0.81	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.00		µg/l	1.00	0.38	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.00		µg/l	1.00	0.36	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.00		µg/l	1.00	0.78	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	**19.7**		µg/l	1.00	0.58	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.00		µg/l	1.00	0.64	1	"	"	"	"	"	X
79-01-6	Trichloroethene	**2.64**		µg/l	1.00	0.76	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.00		µg/l	1.00	0.63	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.00		µg/l	1.00	0.74	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	**77.6**		µg/l	1.00	0.76	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	**37.0**		µg/l	1.00	0.74	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.00		µg/l	1.00	0.81	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.00		µg/l	2.00	1.64	1	"	"	"	"	"	X
95-47-6	o-Xylene	**1.44**		µg/l	1.00	0.88	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.00		µg/l	2.00	1.44	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.00		µg/l	1.00	0.69	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.00		µg/l	1.00	0.72	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.00		µg/l	1.00	0.78	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.00		µg/l	1.00	0.73	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	8.64	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	14.0	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.00		µg/l	5.00	0.77	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	35.7	1	"	"	"	"	"	X
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*102*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*99*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*104*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*95*			*70-130 %*			"	"	"	"	"	
Semivolatile Organic Compounds by GCMS													
Semivolatile Organic Compounds													
Prepared by method SW846 3510C													

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
Liquid IDW SB56741-01	13-13723	Ground Water	21-Sep-12 10:16	21-Sep-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Semivolatile Organic Compounds by GCMS													
Semivolatile Organic Compounds Prepared by method SW846 3510C													
83-32-9	Acenaphthene	< 5.32		µg/l	5.32	0.862	1	SW846 8270D	24-Sep-12	04-Oct-12	MSL	1223122	X
208-96-8	Acenaphthylene	< 5.32		µg/l	5.32	1.07	1	"	"	"	"	"	X
62-53-3	Aniline	< 5.32		µg/l	5.32	2.27	1	"	"	"	"	"	X
120-12-7	Anthracene	< 5.32		µg/l	5.32	0.787	1	"	"	"	"	"	X
103-33-3	Azobenzene/Diphenyldiazine	< 5.32		µg/l	5.32	1.14	1	"	"	"	"	"	
92-87-5	Benzidine	< 5.32		µg/l	5.32	3.16	1	"	"	"	"	"	X
56-55-3	Benzo (a) anthracene	< 5.32		µg/l	5.32	0.596	1	"	"	"	"	"	X
50-32-8	Benzo (a) pyrene	< 5.32		µg/l	5.32	0.894	1	"	"	"	"	"	X
205-99-2	Benzo (b) fluoranthene	< 5.32		µg/l	5.32	1.02	1	"	"	"	"	"	X
191-24-2	Benzo (g,h,i) perylene	< 5.32		µg/l	5.32	1.54	1	"	"	"	"	"	X
207-08-9	Benzo (k) fluoranthene	< 5.32		µg/l	5.32	1.62	1	"	"	"	"	"	X
65-85-0	Benzoic acid	< 5.32		µg/l	5.32	1.67	1	"	"	"	"	"	X
100-51-6	Benzyl alcohol	< 5.32		µg/l	5.32	1.63	1	"	"	"	"	"	X
111-91-1	Bis(2-chloroethoxy)methane	< 5.32		µg/l	5.32	1.13	1	"	"	"	"	"	X
111-44-4	Bis(2-chloroethyl)ether	< 5.32		µg/l	5.32	1.19	1	"	"	"	"	"	X
108-60-1	Bis(2-chloroisopropyl)ether	< 5.32		µg/l	5.32	1.31	1	"	"	"	"	"	X
117-81-7	Bis(2-ethylhexyl)phthalate	< 5.32		µg/l	5.32	1.79	1	"	"	"	"	"	X
101-55-3	4-Bromophenyl phenyl ether	< 5.32		µg/l	5.32	1.39	1	"	"	"	"	"	X
85-68-7	Butyl benzyl phthalate	< 5.32		µg/l	5.32	0.798	1	"	"	"	"	"	X
86-74-8	Carbazole	< 5.32		µg/l	5.32	2.15	1	"	"	"	"	"	X
59-50-7	4-Chloro-3-methylphenol	< 5.32		µg/l	5.32	1.54	1	"	"	"	"	"	X
106-47-8	4-Chloroaniline	< 5.32		µg/l	5.32	1.26	1	"	"	"	"	"	X
91-58-7	2-Chloronaphthalene	< 5.32		µg/l	5.32	0.702	1	"	"	"	"	"	X
95-57-8	2-Chlorophenol	< 5.32		µg/l	5.32	0.894	1	"	"	"	"	"	X
7005-72-3	4-Chlorophenyl phenyl ether	< 5.32		µg/l	5.32	1.04	1	"	"	"	"	"	X
218-01-9	Chrysene	< 5.32		µg/l	5.32	0.702	1	"	"	"	"	"	X
53-70-3	Dibenzo (a,h) anthracene	< 5.32		µg/l	5.32	1.39	1	"	"	"	"	"	X
132-64-9	Dibenzofuran	< 5.32		µg/l	5.32	0.702	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 5.32		µg/l	5.32	0.904	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 5.32		µg/l	5.32	1.44	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 5.32		µg/l	5.32	0.766	1	"	"	"	"	"	X
91-94-1	3,3'-Dichlorobenzidine	< 5.32		µg/l	5.32	2.15	1	"	"	"	"	"	X
120-83-2	2,4-Dichlorophenol	< 5.32		µg/l	5.32	1.41	1	"	"	"	"	"	X
84-66-2	Diethyl phthalate	< 5.32		µg/l	5.32	1.31	1	"	"	"	"	"	X
131-11-3	Dimethyl phthalate	< 5.32		µg/l	5.32	0.904	1	"	"	"	"	"	X
105-67-9	2,4-Dimethylphenol	< 5.32		µg/l	5.32	1.12	1	"	"	"	"	"	X
84-74-2	Di-n-butyl phthalate	< 5.32		µg/l	5.32	1.43	1	"	"	"	"	"	X
534-52-1	4,6-Dinitro-2-methylphenol	< 5.32		µg/l	5.32	2.04	1	"	"	"	"	"	X
51-28-5	2,4-Dinitrophenol	< 5.32		µg/l	5.32	3.41	1	"	"	"	"	"	X
121-14-2	2,4-Dinitrotoluene	< 5.32		µg/l	5.32	1.36	1	"	"	"	"	"	X
606-20-2	2,6-Dinitrotoluene	< 5.32		µg/l	5.32	1.16	1	"	"	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
Liquid IDW	13-13723	Ground Water	21-Sep-12 10:16	21-Sep-12
SB56741-01				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Semivolatile Organic Compounds by GCMS													
Semivolatile Organic Compounds													
Prepared by method SW846 3510C													
117-84-0	Di-n-octyl phthalate	< 5.32		µg/l	5.32	1.40	1	SW846 8270D	24-Sep-12	04-Oct-12	MSL	1223122	X
206-44-0	Fluoranthene	< 5.32		µg/l	5.32	2.28	1	"	"	"	"	"	X
86-73-7	Fluorene	< 5.32		µg/l	5.32	0.968	1	"	"	"	"	"	X
118-74-1	Hexachlorobenzene	< 5.32		µg/l	5.32	1.29	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 5.32		µg/l	5.32	1.40	1	"	"	"	"	"	X
77-47-4	Hexachlorocyclopentadiene	< 5.32		µg/l	5.32	1.44	1	"	"	"	"	"	X
67-72-1	Hexachloroethane	< 5.32		µg/l	5.32	1.19	1	"	"	"	"	"	X
193-39-5	Indeno (1,2,3-cd) pyrene	< 5.32		µg/l	5.32	1.43	1	"	"	"	"	"	X
78-59-1	Isophorone	< 5.32		µg/l	5.32	1.14	1	"	"	"	"	"	X
91-57-6	2-Methylnaphthalene	< 5.32		µg/l	5.32	1.36	1	"	"	"	"	"	X
95-48-7	2-Methylphenol	< 5.32		µg/l	5.32	0.904	1	"	"	"	"	"	X
108-39-4, 106-44-5	3 & 4-Methylphenol	< 10.6		µg/l	10.6	1.16	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 5.32		µg/l	5.32	0.798	1	"	"	"	"	"	X
88-74-4	2-Nitroaniline	< 5.32		µg/l	5.32	1.13	1	"	"	"	"	"	X
99-09-2	3-Nitroaniline	< 5.32		µg/l	5.32	1.69	1	"	"	"	"	"	X
100-01-6	4-Nitroaniline	< 21.3		µg/l	21.3	4.86	1	"	"	"	"	"	X
98-95-3	Nitrobenzene	< 5.32		µg/l	5.32	1.02	1	"	"	"	"	"	X
88-75-5	2-Nitrophenol	< 5.32		µg/l	5.32	1.39	1	"	"	"	"	"	X
100-02-7	4-Nitrophenol	< 21.3		µg/l	21.3	2.73	1	"	"	"	"	"	X
62-75-9	N-Nitrosodimethylamine	< 5.32		µg/l	5.32	2.22	1	"	"	"	"	"	X
621-64-7	N-Nitrosodi-n-propylamine	< 5.32		µg/l	5.32	1.18	1	"	"	"	"	"	X
86-30-6	N-Nitrosodiphenylamine	< 5.32		µg/l	5.32	1.21	1	"	"	"	"	"	X
87-86-5	Pentachlorophenol	< 21.3		µg/l	21.3	1.89	1	"	"	"	"	"	X
85-01-8	Phenanthrene	< 5.32		µg/l	5.32	0.638	1	"	"	"	"	"	X
108-95-2	Phenol	< 5.32		µg/l	5.32	1.12	1	"	"	"	"	"	X
129-00-0	Pyrene	< 5.32		µg/l	5.32	2.63	1	"	"	"	"	"	X
110-86-1	Pyridine	< 5.32		µg/l	5.32	1.95	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 5.32		µg/l	5.32	1.05	1	"	"	"	"	"	X
90-12-0	1-Methylnaphthalene	< 5.32		µg/l	5.32	1.17	1	"	"	"	"	"	
95-95-4	2,4,5-Trichlorophenol	< 5.32		µg/l	5.32	1.56	1	"	"	"	"	"	X
88-06-2	2,4,6-Trichlorophenol	< 5.32		µg/l	5.32	1.03	1	"	"	"	"	"	X
82-68-8	Pentachloronitrobenzene	< 5.32		µg/l	5.32	1.71	1	"	"	"	"	"	X
95-94-3	1,2,4,5-Tetrachlorobenzene	< 5.32		µg/l	5.32	0.734	1	"	"	"	"	"	X
Surrogate recoveries:													
321-60-8	*2-Fluorobiphenyl*	*66*			*30-130 %*			"	"	"	"	"	
367-12-4	*2-Fluorophenol*	*52*			*15-110 %*			"	"	"	"	"	
4165-60-0	*Nitrobenzene-d5*	*73*			*30-130 %*			"	"	"	"	"	
4165-62-2	*Phenol-d5*	*37*			*15-110 %*			"	"	"	"	"	
1718-51-0	*Terphenyl-dl4*	*82*			*30-130 %*			"	"	"	"	"	
118-79-6	*2,4,6-Tribromophenol*	*66*			*15-110 %*			"	"	"	"	"	
SVOCs by SIM													
Prepared by method SW846 3510C													
83-32-9	Acenaphthene	< 0.050		µg/l	0.050	0.007	1	SW846 8270D SIM	"	26-Sep-12	ML	"	X

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* Reportable Detection Limit

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
Liquid IDW SB56741-01	13-13723	Ground Water	21-Sep-12 10:16	21-Sep-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Semivolatile Organic Compounds by GCMS													
SVOCs by SIM													
Prepared by method SW846 3510C													
208-96-8	Acenaphthylene	< 0.050		µg/l	0.050	0.013	1	SW846 8270D SIM	24-Sep-12	26-Sep-12	ML	1223122	X
90-12-0	1-Methylnaphthalene	< 0.050		µg/l	0.050	0.010	1	"	"	"	"	"	
120-12-7	Anthracene	< 0.050		µg/l	0.050	0.013	1	"	"	"	"	"	X
56-55-3	Benzo (a) anthracene	< 0.050		µg/l	0.050	0.036	1	"	"	"	"	"	X
50-32-8	Benzo (a) pyrene	< 0.050		µg/l	0.050	0.036	1	"	"	"	"	"	X
205-99-2	Benzo (b) fluoranthene	< 0.050		µg/l	0.050	0.031	1	"	"	"	"	"	X
191-24-2	Benzo (g,h,i) perylene	< 0.050		µg/l	0.050	0.026	1	"	"	"	"	"	X
207-08-9	Benzo (k) fluoranthene	< 0.050		µg/l	0.050	0.026	1	"	"	"	"	"	X
218-01-9	Chrysene	< 0.050		µg/l	0.050	0.022	1	"	"	"	"	"	X
53-70-3	Dibenzo (a,h) anthracene	< 0.050		µg/l	0.050	0.030	1	"	"	"	"	"	X
206-44-0	Fluoranthene	< 0.050		µg/l	0.050	0.017	1	"	"	"	"	"	X
86-73-7	Fluorene	< 0.050		µg/l	0.050	0.012	1	"	"	"	"	"	X
193-39-5	Indeno (1,2,3-cd) pyrene	< 0.050		µg/l	0.050	0.029	1	"	"	"	"	"	X
91-57-6	2-Methylnaphthalene	< 0.050		µg/l	0.050	0.008	1	"	"	"	"	"	
91-20-3	Naphthalene	< 0.050		µg/l	0.050	0.016	1	"	"	"	"	"	X
85-01-8	Phenanthrene	< 0.050		µg/l	0.050	0.019	1	"	"	"	"	"	X
129-00-0	Pyrene	< 0.050		µg/l	0.050	0.017	1	"	"	"	"	"	X
Surrogate recoveries:													
321-60-8	*2-Fluorobiphenyl*	*59*			*30-130 %*			"	"	"	"	"	
1718-51-0	*Terphenyl-dl4*	*69*			*30-130 %*			"	"	"	"	"	
Semivolatile Organic Compounds by GC													
Polychlorinated Biphenyls													
Prepared by method SW846 3510C													
12674-11-2	Aroclor-1016	< 0.213		µg/l	0.213	0.00915	1	SW846 8082A	24-Sep-12	25-Sep-12	IMR	1223126	X
11104-28-2	Aroclor-1221	< 0.213		µg/l	0.213	0.0152	1	"	"	"	"	"	X
11141-16-5	Aroclor-1232	< 0.213		µg/l	0.213	0.0143	1	"	"	"	"	"	X
53469-21-9	Aroclor-1242	< 0.213		µg/l	0.213	0.00777	1	"	"	"	"	"	X
12672-29-6	Aroclor-1248	< 0.213		µg/l	0.213	0.0120	1	"	"	"	"	"	X
11097-69-1	Aroclor-1254	< 0.213		µg/l	0.213	0.0105	1	"	"	"	"	"	X
11096-82-5	Aroclor-1260	< 0.213		µg/l	0.213	0.00617	1	"	"	"	"	"	X
37324-23-5	Aroclor-1262	< 0.213		µg/l	0.213	0.00926	1	"	"	"	"	"	X
11100-14-4	Aroclor-1268	< 0.213		µg/l	0.213	0.0101	1	"	"	"	"	"	X
Surrogate recoveries:													
10386-84-2	*4,4-DB-Octafluorobiphenyl (Sr)*	*60*			*30-150 %*			"	"	"	"	"	
10386-84-2	*4,4-DB-Octafluorobiphenyl (Sr) [2C]*	*60*			*30-150 %*			"	"	"	"	"	
2051-24-3	*Decachlorobiphenyl (Sr)*	*65*			*30-150 %*			"	"	"	"	"	
2051-24-3	*Decachlorobiphenyl (Sr) [2C]*	*45*			*30-150 %*			"	"	"	"	"	
TCLP Metals by EPA 1311 & 6000/7000 Series Methods													
	TCLP Extraction	**Completed**		N/A			1	SW846 1311	28-Sep-12	29-Sep-12	JLH	1223786	
	TCLP Extraction	**Completed**		N/A			1	"	"	"	"	"	
7440-22-4	Silver	< 0.0100		mg/l	0.0100	0.0036	1	SW846 1311/6010C	01-Oct-12	03-Oct-12	EDT	1223840	X
7440-38-2	Arsenic	< 0.0080		mg/l	0.0080	0.0062	1	"	"	"	"	"	X

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Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
Liquid IDW SB56741-01	13-13723	Ground Water	21-Sep-12 10:16	21-Sep-12

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
TCLP Metals by EPA 1311 & 6000/7000 Series Methods													
7440-39-3	Barium	**0.0240**		mg/l	0.0100	0.0006	1	SW846 1311/6010C	01-Oct-12	03-Oct-12	EDT	1223840	X
7440-43-9	Cadmium	< 0.0050		mg/l	0.0050	0.0003	1	"	"	"	"	"	X
7440-47-3	Chromium	< 0.0100		mg/l	0.0100	0.0066	1	"	"	"	"	"	X
7439-97-6	Mercury	< 0.00020		mg/l	0.00020	0.00007	1	SW846 1311/7470A	04-Oct-12	05-Oct-12	JLM	1223841	X
7439-92-1	Lead	< 0.0150		mg/l	0.0150	0.0039	1	SW846 1311/6010C	01-Oct-12	03-Oct-12	EDT	1223840	X
7782-49-2	Selenium	< 0.0300		mg/l	0.0300	0.0076	1	"	"	"	"	"	X
General Chemistry Parameters													
	Flashpoint	**>150**		°F			1	SW846 1010A	27-Sep-12	27-Sep-12	VK	1223648	
	pH	**7.73**	pH	pH Units			1	ASTM D 1293-99B	21-Sep-12 16:30	21-Sep-12 16:30	SPW	1223011	
Reactivity Cyanide/Sulfide													
Prepared by method General Preparation													
	Reactivity	**Nonreactive**		mg/l			1	SW846 Ch. 7.3	27-Sep-12	27-Sep-12	BD	1223555	
	Reactive Cyanide	< 25.0		mg/l	25.0	2.50	1	"	"	"	"	"	
	Reactive Sulfide	< 50.0		mg/l	50.0	5.00	1	"	"	"	"	"	

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1224174 - SW846 5030 Water MS										
Blank (1224174-BLK1)						Prepared & Analyzed: 03-Oct-12				
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.00		µg/l	1.00						
Acetone	< 10.0		µg/l	10.0						
Acrylonitrile	< 0.50		µg/l	0.50						
Benzene	< 1.00		µg/l	1.00						
Bromobenzene	< 1.00		µg/l	1.00						
Bromochloromethane	< 1.00		µg/l	1.00						
Bromodichloromethane	< 0.50		µg/l	0.50						
Bromoform	< 1.00		µg/l	1.00						
Bromomethane	< 2.00		µg/l	2.00						
2-Butanone (MEK)	< 10.0		µg/l	10.0						
n-Butylbenzene	< 1.00		µg/l	1.00						
sec-Butylbenzene	< 1.00		µg/l	1.00						
tert-Butylbenzene	< 1.00		µg/l	1.00						
Carbon disulfide	< 2.00		µg/l	2.00						
Carbon tetrachloride	< 1.00		µg/l	1.00						
Chlorobenzene	< 1.00		µg/l	1.00						
Chloroethane	< 2.00		µg/l	2.00						
Chloroform	< 1.00		µg/l	1.00						
Chloromethane	< 2.00		µg/l	2.00						
2-Chlorotoluene	< 1.00		µg/l	1.00						
4-Chlorotoluene	< 1.00		µg/l	1.00						
1,2-Dibromo-3-chloropropane	< 2.00		µg/l	2.00						
Dibromochloromethane	< 0.50		µg/l	0.50						
1,2-Dibromoethane (EDB)	< 0.50		µg/l	0.50						
Dibromomethane	< 1.00		µg/l	1.00						
1,2-Dichlorobenzene	< 1.00		µg/l	1.00						
1,3-Dichlorobenzene	< 1.00		µg/l	1.00						
1,4-Dichlorobenzene	< 1.00		µg/l	1.00						
Dichlorodifluoromethane (Freon12)	< 2.00		µg/l	2.00						
1,1-Dichloroethane	< 1.00		µg/l	1.00						
1,2-Dichloroethane	< 1.00		µg/l	1.00						
1,1-Dichloroethene	< 1.00		µg/l	1.00						
cis-1,2-Dichloroethene	< 1.00		µg/l	1.00						
trans-1,2-Dichloroethene	< 1.00		µg/l	1.00						
1,2-Dichloropropane	< 1.00		µg/l	1.00						
1,3-Dichloropropane	< 1.00		µg/l	1.00						
2,2-Dichloropropane	< 1.00		µg/l	1.00						
1,1-Dichloropropene	< 1.00		µg/l	1.00						
cis-1,3-Dichloropropene	< 0.50		µg/l	0.50						
trans-1,3-Dichloropropene	< 0.50		µg/l	0.50						
Ethylbenzene	< 1.00		µg/l	1.00						
Hexachlorobutadiene	< 0.50		µg/l	0.50						
2-Hexanone (MBK)	< 10.0		µg/l	10.0						
Isopropylbenzene	< 1.00		µg/l	1.00						
4-Isopropyltoluene	< 1.00		µg/l	1.00						
Methyl tert-butyl ether	< 1.00		µg/l	1.00						
4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0						
Methylene chloride	< 2.00		µg/l	2.00						
Naphthalene	< 1.00		µg/l	1.00						
n-Propylbenzene	< 1.00		µg/l	1.00						
Styrene	< 1.00		µg/l	1.00						
1,1,1,2-Tetrachloroethane	< 1.00		µg/l	1.00						

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1224174 - SW846 5030 Water MS										
Blank (1224174-BLK1)						Prepared & Analyzed: 03-Oct-12				
1,1,2,2-Tetrachloroethane	< 0.50		µg/l	0.50						
Tetrachloroethene	< 1.00		µg/l	1.00						
Toluene	< 1.00		µg/l	1.00						
1,2,3-Trichlorobenzene	< 1.00		µg/l	1.00						
1,2,4-Trichlorobenzene	< 1.00		µg/l	1.00						
1,3,5-Trichlorobenzene	< 1.00		µg/l	1.00						
1,1,1-Trichloroethane	< 1.00		µg/l	1.00						
1,1,2-Trichloroethane	< 1.00		µg/l	1.00						
Trichloroethene	< 1.00		µg/l	1.00						
Trichlorofluoromethane (Freon 11)	< 1.00		µg/l	1.00						
1,2,3-Trichloropropane	< 1.00		µg/l	1.00						
1,2,4-Trimethylbenzene	< 1.00		µg/l	1.00						
1,3,5-Trimethylbenzene	< 1.00		µg/l	1.00						
Vinyl chloride	< 1.00		µg/l	1.00						
m,p-Xylene	< 2.00		µg/l	2.00						
o-Xylene	< 1.00		µg/l	1.00						
Tetrahydrofuran	< 2.00		µg/l	2.00						
Ethyl ether	< 1.00		µg/l	1.00						
Tert-amyl methyl ether	< 1.00		µg/l	1.00						
Ethyl tert-butyl ether	< 1.00		µg/l	1.00						
Di-isopropyl ether	< 1.00		µg/l	1.00						
Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0						
1,4-Dioxane	< 20.0		µg/l	20.0						
trans-1,4-Dichloro-2-butene	< 5.00		µg/l	5.00						
Ethanol	< 400		µg/l	400						
Surrogate: 4-Bromofluorobenzene	*30.4*		µg/l		*30.0*		*101*	*70-130*		
Surrogate: Toluene-d8	*29.8*		µg/l		*30.0*		*99*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*31.9*		µg/l		*30.0*		*106*	*70-130*		
Surrogate: Dibromofluoromethane	*28.2*		µg/l		*30.0*		*94*	*70-130*		
LCS (1224174-BS1)						Prepared & Analyzed: 03-Oct-12				
1,1,2-Trichlorotrifluoroethane (Freon 113)	**23.9**		µg/l		20.0		120	70-130		
Acetone	**24.8**		µg/l		20.0		124	70-130		
Acrylonitrile	**23.9**		µg/l		20.0		120	70-130		
Benzene	**18.9**		µg/l		20.0		94	70-130		
Bromobenzene	**19.5**		µg/l		20.0		98	70-130		
Bromochloromethane	**18.2**		µg/l		20.0		91	70-130		
Bromodichloromethane	**18.6**		µg/l		20.0		93	70-130		
Bromoform	**18.4**		µg/l		20.0		92	70-130		
Bromomethane	**20.4**		µg/l		20.0		102	70-130		
2-Butanone (MEK)	**19.6**		µg/l		20.0		98	70-130		
n-Butylbenzene	**20.9**		µg/l		20.0		104	70-130		
sec-Butylbenzene	**19.9**		µg/l		20.0		100	70-130		
tert-Butylbenzene	**19.7**		µg/l		20.0		98	70-130		
Carbon disulfide	**18.4**		µg/l		20.0		92	70-130		
Carbon tetrachloride	**19.2**		µg/l		20.0		96	70-130		
Chlorobenzene	**19.0**		µg/l		20.0		95	70-130		
Chloroethane	**22.8**		µg/l		20.0		114	70-130		
Chloroform	**18.4**		µg/l		20.0		92	70-130		
Chloromethane	**19.5**		µg/l		20.0		98	70-130		
2-Chlorotoluene	**19.3**		µg/l		20.0		96	70-130		
4-Chlorotoluene	**19.7**		µg/l		20.0		98	70-130		

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1224174 - SW846 5030 Water MS										
LCS (1224174-BS1)					Prepared & Analyzed: 03-Oct-12					
1,2-Dibromo-3-chloropropane	**17.9**		µg/l		20.0		89	70-130		
Dibromochloromethane	**17.5**		µg/l		20.0		87	70-130		
1,2-Dibromoethane (EDB)	**20.7**		µg/l		20.0		104	70-130		
Dibromomethane	**19.6**		µg/l		20.0		98	70-130		
1,2-Dichlorobenzene	**19.2**		µg/l		20.0		96	70-130		
1,3-Dichlorobenzene	**19.2**		µg/l		20.0		96	70-130		
1,4-Dichlorobenzene	**19.1**		µg/l		20.0		95	70-130		
Dichlorodifluoromethane (Freon12)	**20.7**		µg/l		20.0		104	70-130		
1,1-Dichloroethane	**18.0**		µg/l		20.0		90	70-130		
1,2-Dichloroethane	**20.0**		µg/l		20.0		100	70-130		
1,1-Dichloroethene	**23.0**		µg/l		20.0		115	70-130		
cis-1,2-Dichloroethene	**18.9**		µg/l		20.0		94	70-130		
trans-1,2-Dichloroethene	**18.5**		µg/l		20.0		92	70-130		
1,2-Dichloropropane	**18.7**		µg/l		20.0		93	70-130		
1,3-Dichloropropane	**19.6**		µg/l		20.0		98	70-130		
2,2-Dichloropropane	**20.6**		µg/l		20.0		103	70-130		
1,1-Dichloropropene	**19.3**		µg/l		20.0		97	70-130		
cis-1,3-Dichloropropene	**19.2**		µg/l		20.0		96	70-130		
trans-1,3-Dichloropropene	**20.0**		µg/l		20.0		100	70-130		
Ethylbenzene	**19.3**		µg/l		20.0		97	70-130		
Hexachlorobutadiene	**16.3**		µg/l		20.0		81	70-130		
2-Hexanone (MBK)	**21.1**		µg/l		20.0		105	70-130		
Isopropylbenzene	**19.3**		µg/l		20.0		97	70-130		
4-Isopropyltoluene	**20.3**		µg/l		20.0		102	70-130		
Methyl tert-butyl ether	**19.4**		µg/l		20.0		97	70-130		
4-Methyl-2-pentanone (MIBK)	**21.9**		µg/l		20.0		109	70-130		
Methylene chloride	**22.1**		µg/l		20.0		110	70-130		
Naphthalene	**15.9**		µg/l		20.0		80	70-130		
n-Propylbenzene	**20.1**		µg/l		20.0		100	70-130		
Styrene	**19.6**		µg/l		20.0		98	70-130		
1,1,1,2-Tetrachloroethane	**18.8**		µg/l		20.0		94	70-130		
1,1,2,2-Tetrachloroethane	**19.8**		µg/l		20.0		99	70-130		
Tetrachloroethene	**19.6**		µg/l		20.0		98	70-130		
Toluene	**19.0**		µg/l		20.0		95	70-130		
1,2,3-Trichlorobenzene	**14.3**		µg/l		20.0		72	70-130		
1,2,4-Trichlorobenzene	**15.9**		µg/l		20.0		80	70-130		
1,3,5-Trichlorobenzene	**16.6**		µg/l		20.0		83	70-130		
1,1,1-Trichloroethane	**19.4**		µg/l		20.0		97	70-130		
1,1,2-Trichloroethane	**19.7**		µg/l		20.0		99	70-130		
Trichloroethene	**19.5**		µg/l		20.0		97	70-130		
Trichlorofluoromethane (Freon 11)	**25.7**		µg/l		20.0		128	70-130		
1,2,3-Trichloropropane	**21.0**		µg/l		20.0		105	70-130		
1,2,4-Trimethylbenzene	**20.0**		µg/l		20.0		100	70-130		
1,3,5-Trimethylbenzene	**20.2**		µg/l		20.0		101	70-130		
Vinyl chloride	**27.0**	QC2	µg/l		20.0		135	70-130		
m,p-Xylene	**39.6**		µg/l		40.0		99	70-130		
o-Xylene	**19.4**		µg/l		20.0		97	70-130		
Tetrahydrofuran	**17.5**		µg/l		20.0		87	70-130		
Ethyl ether	**23.7**		µg/l		20.0		118	70-130		
Tert-amyl methyl ether	**19.1**		µg/l		20.0		95	70-130		
Ethyl tert-butyl ether	**18.8**		µg/l		20.0		94	70-130		
Di-isopropyl ether	**17.3**		µg/l		20.0		87	70-130		

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1224174 - SW846 5030 Water MS										
LCS (1224174-BS1)						Prepared & Analyzed: 03-Oct-12				
Tert-Butanol / butyl alcohol	**289**	QC2	µg/l		200		145	70-130		
1,4-Dioxane	**206**		µg/l		200		103	70-130		
trans-1,4-Dichloro-2-butene	**19.6**		µg/l		20.0		98	70-130		
Ethanol	**438**		µg/l		400		109	70-130		
Surrogate: 4-Bromofluorobenzene	*30.2*		µg/l		*30.0*		*101*	*70-130*		
Surrogate: Toluene-d8	*29.5*		µg/l		*30.0*		*98*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*31.2*		µg/l		*30.0*		*104*	*70-130*		
Surrogate: Dibromofluoromethane	*29.6*		µg/l		*30.0*		*99*	*70-130*		
LCS Dup (1224174-BSD1)						Prepared & Analyzed: 03-Oct-12				
1,1,2-Trichlorotrifluoroethane (Freon 113)	**25.9**		µg/l		20.0		129	70-130	8	20
Acetone	**22.5**		µg/l		20.0		112	70-130	10	20
Acrylonitrile	**24.2**		µg/l		20.0		121	70-130	1	20
Benzene	**19.1**		µg/l		20.0		95	70-130	1	20
Bromobenzene	**19.7**		µg/l		20.0		99	70-130	1	20
Bromochloromethane	**18.7**		µg/l		20.0		94	70-130	3	20
Bromodichloromethane	**19.0**		µg/l		20.0		95	70-130	2	20
Bromoform	**18.1**		µg/l		20.0		90	70-130	2	20
Bromomethane	**20.9**		µg/l		20.0		104	70-130	3	20
2-Butanone (MEK)	**20.9**		µg/l		20.0		104	70-130	6	20
n-Butylbenzene	**20.6**		µg/l		20.0		103	70-130	1	20
sec-Butylbenzene	**20.3**		µg/l		20.0		102	70-130	2	20
tert-Butylbenzene	**19.9**		µg/l		20.0		100	70-130	1	20
Carbon disulfide	**17.5**		µg/l		20.0		88	70-130	5	20
Carbon tetrachloride	**20.5**		µg/l		20.0		103	70-130	7	20
Chlorobenzene	**19.3**		µg/l		20.0		96	70-130	1	20
Chloroethane	**23.8**		µg/l		20.0		119	70-130	4	20
Chloroform	**18.4**		µg/l		20.0		92	70-130	0.2	20
Chloromethane	**20.4**		µg/l		20.0		102	70-130	5	20
2-Chlorotoluene	**20.2**		µg/l		20.0		101	70-130	5	20
4-Chlorotoluene	**20.1**		µg/l		20.0		101	70-130	2	20
1,2-Dibromo-3-chloropropane	**16.0**		µg/l		20.0		80	70-130	11	20
Dibromochloromethane	**17.4**		µg/l		20.0		87	70-130	0.2	20
1,2-Dibromoethane (EDB)	**20.3**		µg/l		20.0		102	70-130	2	20
Dibromomethane	**20.3**		µg/l		20.0		102	70-130	4	20
1,2-Dichlorobenzene	**19.6**		µg/l		20.0		98	70-130	2	20
1,3-Dichlorobenzene	**20.0**		µg/l		20.0		100	70-130	4	20
1,4-Dichlorobenzene	**19.0**		µg/l		20.0		95	70-130	0.5	20
Dichlorodifluoromethane (Freon12)	**21.4**		µg/l		20.0		107	70-130	3	20
1,1-Dichloroethane	**18.7**		µg/l		20.0		94	70-130	4	20
1,2-Dichloroethane	**20.4**		µg/l		20.0		102	70-130	2	20
1,1-Dichloroethene	**24.0**		µg/l		20.0		120	70-130	4	20
cis-1,2-Dichloroethene	**19.3**		µg/l		20.0		96	70-130	2	20
trans-1,2-Dichloroethene	**18.9**		µg/l		20.0		95	70-130	2	20
1,2-Dichloropropane	**19.1**		µg/l		20.0		96	70-130	2	20
1,3-Dichloropropane	**19.9**		µg/l		20.0		100	70-130	2	20
2,2-Dichloropropane	**21.0**		µg/l		20.0		105	70-130	2	20
1,1-Dichloropropene	**19.6**		µg/l		20.0		98	70-130	1	20
cis-1,3-Dichloropropene	**19.9**		µg/l		20.0		99	70-130	4	20
trans-1,3-Dichloropropene	**20.2**		µg/l		20.0		101	70-130	1	20
Ethylbenzene	**19.7**		µg/l		20.0		98	70-130	2	20
Hexachlorobutadiene	**15.3**		µg/l		20.0		76	70-130	6	20

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1224174 - SW846 5030 Water MS										
LCS Dup (1224174-BSD1)					Prepared & Analyzed: 03-Oct-12					
2-Hexanone (MBK)	**19.8**		µg/l		20.0		99	70-130	6	20
Isopropylbenzene	**20.0**		µg/l		20.0		100	70-130	4	20
4-Isopropyltoluene	**20.0**		µg/l		20.0		100	70-130	2	20
Methyl tert-butyl ether	**20.3**		µg/l		20.0		101	70-130	4	20
4-Methyl-2-pentanone (MIBK)	**22.2**		µg/l		20.0		111	70-130	2	20
Methylene chloride	**22.5**		µg/l		20.0		113	70-130	2	20
Naphthalene	**16.1**		µg/l		20.0		80	70-130	1	20
n-Propylbenzene	**20.4**		µg/l		20.0		102	70-130	2	20
Styrene	**19.9**		µg/l		20.0		100	70-130	2	20
1,1,1,2-Tetrachloroethane	**18.7**		µg/l		20.0		93	70-130	0.7	20
1,1,2,2-Tetrachloroethane	**20.3**		µg/l		20.0		102	70-130	3	20
Tetrachloroethene	**19.2**		µg/l		20.0		96	70-130	2	20
Toluene	**19.2**		µg/l		20.0		96	70-130	1	20
1,2,3-Trichlorobenzene	**14.6**		µg/l		20.0		73	70-130	2	20
1,2,4-Trichlorobenzene	**16.0**		µg/l		20.0		80	70-130	0.3	20
1,3,5-Trichlorobenzene	**16.7**		µg/l		20.0		84	70-130	0.9	20
1,1,1-Trichloroethane	**20.1**		µg/l		20.0		100	70-130	3	20
1,1,2-Trichloroethane	**20.2**		µg/l		20.0		101	70-130	2	20
Trichloroethene	**19.9**		µg/l		20.0		100	70-130	2	20
Trichlorofluoromethane (Freon 11)	**26.4**	QM9	µg/l		20.0		132	70-130	3	20
1,2,3-Trichloropropane	**21.0**		µg/l		20.0		105	70-130	0	20
1,2,4-Trimethylbenzene	**20.7**		µg/l		20.0		104	70-130	4	20
1,3,5-Trimethylbenzene	**20.6**		µg/l		20.0		103	70-130	2	20
Vinyl chloride	**30.6**	QC2	µg/l		20.0		153	70-130	13	20
m,p-Xylene	**40.4**		µg/l		40.0		101	70-130	2	20
o-Xylene	**20.4**		µg/l		20.0		102	70-130	5	20
Tetrahydrofuran	**16.7**		µg/l		20.0		83	70-130	5	20
Ethyl ether	**23.8**		µg/l		20.0		119	70-130	0.8	20
Tert-amyl methyl ether	**19.7**		µg/l		20.0		98	70-130	3	20
Ethyl tert-butyl ether	**19.3**		µg/l		20.0		96	70-130	3	20
Di-isopropyl ether	**17.8**		µg/l		20.0		89	70-130	3	20
Tert-Butanol / butyl alcohol	**292**	QC2	µg/l		200		146	70-130	1	20
1,4-Dioxane	**200**		µg/l		200		100	70-130	3	20
trans-1,4-Dichloro-2-butene	**20.5**		µg/l		20.0		102	70-130	4	20
Ethanol	**425**		µg/l		400		106	70-130	3	20
Surrogate: 4-Bromofluorobenzene	*30.5*		µg/l		*30.0*		*102*	*70-130*		
Surrogate: Toluene-d8	*29.6*		µg/l		*30.0*		*98*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*31.0*		µg/l		*30.0*		*103*	*70-130*		
Surrogate: Dibromofluoromethane	*30.2*		µg/l		*30.0*		*101*	*70-130*		
Matrix Spike (1224174-MS1)			**Source: SB56741-01**		Prepared & Analyzed: 03-Oct-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**19.0**		µg/l		20.0	BRL	95	70-130		
Acetone	**87.9**		µg/l		20.0	64.7	116	70-130		
Acrylonitrile	**18.8**		µg/l		20.0	BRL	94	70-130		
Benzene	**17.9**		µg/l		20.0	BRL	90	70-130		
Bromobenzene	**20.8**		µg/l		20.0	BRL	104	70-130		
Bromochloromethane	**18.5**		µg/l		20.0	BRL	93	70-130		
Bromodichloromethane	**19.6**		µg/l		20.0	BRL	98	70-130		
Bromoform	**18.0**		µg/l		20.0	BRL	90	70-130		
Bromomethane	**14.6**		µg/l		20.0	BRL	73	70-130		
2-Butanone (MEK)	**21.6**		µg/l		20.0	BRL	108	70-130		
n-Butylbenzene	**27.6**		µg/l		20.0	8.77	94	70-130		

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1224174 - SW846 5030 Water MS										
Matrix Spike (1224174-MS1)			Source: SB56741-01		Prepared & Analyzed: 03-Oct-12					
sec-Butylbenzene	**23.8**		µg/l		20.0	2.59	106	70-130		
tert-Butylbenzene	**22.5**		µg/l		20.0	0.74	109	70-130		
Carbon disulfide	**7.77**	QM7	µg/l		20.0	BRL	39	70-130		
Carbon tetrachloride	**19.4**		µg/l		20.0	BRL	97	70-130		
Chlorobenzene	**19.8**		µg/l		20.0	BRL	99	70-130		
Chloroethane	**18.7**		µg/l		20.0	BRL	93	70-130		
Chloroform	**19.2**		µg/l		20.0	BRL	96	70-130		
Chloromethane	**13.3**	QM7	µg/l		20.0	BRL	66	70-130		
2-Chlorotoluene	**21.3**		µg/l		20.0	BRL	106	70-130		
4-Chlorotoluene	**22.2**		µg/l		20.0	BRL	111	70-130		
1,2-Dibromo-3-chloropropane	**20.0**		µg/l		20.0	BRL	100	70-130		
Dibromochloromethane	**17.1**		µg/l		20.0	BRL	86	70-130		
1,2-Dibromoethane (EDB)	**19.8**		µg/l		20.0	BRL	99	70-130		
Dibromomethane	**20.6**		µg/l		20.0	BRL	103	70-130		
1,2-Dichlorobenzene	**20.4**		µg/l		20.0	BRL	102	70-130		
1,3-Dichlorobenzene	**21.1**		µg/l		20.0	BRL	105	70-130		
1,4-Dichlorobenzene	**20.0**		µg/l		20.0	BRL	100	70-130		
Dichlorodifluoromethane (Freon12)	**15.9**		µg/l		20.0	BRL	79	70-130		
1,1-Dichloroethane	**23.4**		µg/l		20.0	4.41	95	70-130		
1,2-Dichloroethane	**20.7**		µg/l		20.0	BRL	104	70-130		
1,1-Dichloroethene	**20.0**		µg/l		20.0	BRL	100	70-130		
cis-1,2-Dichloroethene	**19.6**		µg/l		20.0	0.74	94	70-130		
trans-1,2-Dichloroethene	**16.3**		µg/l		20.0	BRL	81	70-130		
1,2-Dichloropropane	**19.6**		µg/l		20.0	BRL	98	70-130		
1,3-Dichloropropane	**19.3**		µg/l		20.0	BRL	96	70-130		
2,2-Dichloropropane	**21.8**		µg/l		20.0	BRL	109	70-130		
1,1-Dichloropropene	**18.4**		µg/l		20.0	BRL	92	70-130		
cis-1,3-Dichloropropene	**19.4**		µg/l		20.0	BRL	97	70-130		
trans-1,3-Dichloropropene	**20.6**		µg/l		20.0	BRL	103	70-130		
Ethylbenzene	**20.5**		µg/l		20.0	BRL	102	70-130		
Hexachlorobutadiene	**23.4**		µg/l		20.0	BRL	117	70-130		
2-Hexanone (MBK)	**21.4**		µg/l		20.0	BRL	107	70-130		
Isopropylbenzene	**21.6**		µg/l		20.0	BRL	108	70-130		
4-Isopropyltoluene	**23.4**	QM7	µg/l		20.0	15.7	39	70-130		
Methyl tert-butyl ether	**21.3**		µg/l		20.0	BRL	107	70-130		
4-Methyl-2-pentanone (MIBK)	**25.1**		µg/l		20.0	BRL	125	70-130		
Methylene chloride	**17.5**		µg/l		20.0	BRL	88	70-130		
Naphthalene	**30.5**	QM7	µg/l		20.0	BRL	153	70-130		
n-Propylbenzene	**22.5**		µg/l		20.0	BRL	112	70-130		
Styrene	**21.1**		µg/l		20.0	BRL	105	70-130		
1,1,1,2-Tetrachloroethane	**20.9**		µg/l		20.0	BRL	104	70-130		
1,1,2,2-Tetrachloroethane	**20.8**		µg/l		20.0	BRL	104	70-130		
Tetrachloroethene	**19.9**		µg/l		20.0	2.64	86	70-130		
Toluene	**18.6**		µg/l		20.0	BRL	93	70-130		
1,2,3-Trichlorobenzene	**26.9**	QM7	µg/l		20.0	BRL	134	70-130		
1,2,4-Trichlorobenzene	**25.6**		µg/l		20.0	BRL	128	70-130		
1,3,5-Trichlorobenzene	**21.9**		µg/l		20.0	BRL	109	70-130		
1,1,1-Trichloroethane	**39.8**		µg/l		20.0	19.7	100	70-130		
1,1,2-Trichloroethane	**20.9**		µg/l		20.0	BRL	104	70-130		
Trichloroethene	**21.6**		µg/l		20.0	2.64	95	70-130		
Trichlorofluoromethane (Freon 11)	**22.1**		µg/l		20.0	BRL	110	70-130		
1,2,3-Trichloropropane	**20.9**		µg/l		20.0	BRL	104	70-130		

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1224174 - SW846 5030 Water MS										
Matrix Spike (1224174-MS1)			Source: SB56741-01		Prepared & Analyzed: 03-Oct-12					
1,2,4-Trimethylbenzene	**32.1**	QM7	µg/l		20.0	77.6	-227	70-130		
1,3,5-Trimethylbenzene	**26.3**	QM7	µg/l		20.0	37.0	-54	70-130		
Vinyl chloride	**21.1**		µg/l		20.0	BRL	106	70-130		
m,p-Xylene	**41.4**		µg/l		40.0	1.56	100	70-130		
o-Xylene	**21.0**		µg/l		20.0	1.44	98	70-130		
Tetrahydrofuran	**16.6**		µg/l		20.0	BRL	83	70-130		
Ethyl ether	**21.6**		µg/l		20.0	BRL	108	70-130		
Tert-amyl methyl ether	**20.4**		µg/l		20.0	BRL	102	70-130		
Ethyl tert-butyl ether	**20.5**		µg/l		20.0	BRL	102	70-130		
Di-isopropyl ether	**18.9**		µg/l		20.0	BRL	94	70-130		
Tert-Butanol / butyl alcohol	**228**		µg/l		200	BRL	114	70-130		
1,4-Dioxane	**222**		µg/l		200	BRL	111	70-130		
trans-1,4-Dichloro-2-butene	**22.1**		µg/l		20.0	BRL	110	70-130		
Ethanol	**484**		µg/l		400	BRL	121	70-130		
Surrogate: 4-Bromofluorobenzene	*30.2*		µg/l		*30.0*		*101*	*70-130*		
Surrogate: Toluene-d8	*29.6*		µg/l		*30.0*		*98*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*32.2*		µg/l		*30.0*		*108*	*70-130*		
Surrogate: Dibromofluoromethane	*30.5*		µg/l		*30.0*		*102*	*70-130*		
Matrix Spike Dup (1224174-MSD1)			Source: SB56741-01		Prepared & Analyzed: 03-Oct-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**19.3**		µg/l		20.0	BRL	96	70-130	2	20
Acetone	**88.3**		µg/l		20.0	64.7	118	70-130	1	20
Acrylonitrile	**20.6**		µg/l		20.0	BRL	103	70-130	9	20
Benzene	**18.8**		µg/l		20.0	BRL	94	70-130	5	20
Bromobenzene	**21.5**		µg/l		20.0	BRL	108	70-130	3	20
Bromochloromethane	**19.0**		µg/l		20.0	BRL	95	70-130	3	20
Bromodichloromethane	**20.5**		µg/l		20.0	BRL	103	70-130	5	20
Bromoform	**19.2**		µg/l		20.0	BRL	96	70-130	7	20
Bromomethane	**15.5**		µg/l		20.0	BRL	78	70-130	6	20
2-Butanone (MEK)	**23.4**		µg/l		20.0	BRL	117	70-130	8	20
n-Butylbenzene	**27.4**		µg/l		20.0	8.77	93	70-130	1	20
sec-Butylbenzene	**24.5**		µg/l		20.0	2.59	110	70-130	3	20
tert-Butylbenzene	**23.2**		µg/l		20.0	0.74	112	70-130	3	20
Carbon disulfide	**8.40**	QM7	µg/l		20.0	BRL	42	70-130	8	20
Carbon tetrachloride	**20.8**		µg/l		20.0	BRL	104	70-130	7	20
Chlorobenzene	**20.6**		µg/l		20.0	BRL	103	70-130	4	20
Chloroethane	**19.1**		µg/l		20.0	BRL	95	70-130	2	20
Chloroform	**19.5**		µg/l		20.0	BRL	98	70-130	2	20
Chloromethane	**13.3**	QM7	µg/l		20.0	BRL	66	70-130	0.2	20
2-Chlorotoluene	**22.0**		µg/l		20.0	BRL	110	70-130	3	20
4-Chlorotoluene	**23.0**		µg/l		20.0	BRL	115	70-130	4	20
1,2-Dibromo-3-chloropropane	**21.6**		µg/l		20.0	BRL	108	70-130	8	20
Dibromochloromethane	**18.4**		µg/l		20.0	BRL	92	70-130	7	20
1,2-Dibromoethane (EDB)	**20.8**		µg/l		20.0	BRL	104	70-130	5	20
Dibromomethane	**20.5**		µg/l		20.0	BRL	102	70-130	0.5	20
1,2-Dichlorobenzene	**21.7**		µg/l		20.0	BRL	109	70-130	6	20
1,3-Dichlorobenzene	**22.0**		µg/l		20.0	BRL	110	70-130	4	20
1,4-Dichlorobenzene	**21.1**		µg/l		20.0	BRL	106	70-130	5	20
Dichlorodifluoromethane (Freon12)	**15.0**		µg/l		20.0	BRL	75	70-130	6	20
1,1-Dichloroethane	**23.5**		µg/l		20.0	4.41	96	70-130	0.3	20
1,2-Dichloroethane	**20.4**		µg/l		20.0	BRL	102	70-130	1	20
1,1-Dichloroethene	**20.7**		µg/l		20.0	BRL	104	70-130	4	20

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1224174 - SW846 5030 Water MS										
Matrix Spike Dup (1224174-MSD1)			Source: SB56741-01		Prepared & Analyzed: 03-Oct-12					
cis-1,2-Dichloroethene	**20.1**		µg/l		20.0	0.74	97	70-130	3	20
trans-1,2-Dichloroethene	**16.7**		µg/l		20.0	BRL	84	70-130	2	20
1,2-Dichloropropane	**20.1**		µg/l		20.0	BRL	101	70-130	3	20
1,3-Dichloropropane	**20.8**		µg/l		20.0	BRL	104	70-130	8	20
2,2-Dichloropropane	**22.6**		µg/l		20.0	BRL	113	70-130	4	20
1,1-Dichloropropene	**19.1**		µg/l		20.0	BRL	96	70-130	4	20
cis-1,3-Dichloropropene	**20.8**		µg/l		20.0	BRL	104	70-130	7	20
trans-1,3-Dichloropropene	**21.6**		µg/l		20.0	BRL	108	70-130	4	20
Ethylbenzene	**21.3**		µg/l		20.0	BRL	107	70-130	4	20
Hexachlorobutadiene	**24.2**		µg/l		20.0	BRL	121	70-130	3	20
2-Hexanone (MBK)	**24.9**		µg/l		20.0	BRL	124	70-130	15	20
Isopropylbenzene	**22.3**		µg/l		20.0	BRL	111	70-130	3	20
4-Isopropyltoluene	**24.3**	QM7	µg/l		20.0	15.7	43	70-130	11	20
Methyl tert-butyl ether	**22.3**		µg/l		20.0	BRL	111	70-130	4	20
4-Methyl-2-pentanone (MIBK)	**25.9**		µg/l		20.0	BRL	130	70-130	3	20
Methylene chloride	**17.5**		µg/l		20.0	BRL	88	70-130	0.1	20
Naphthalene	**31.2**	QM7	µg/l		20.0	BRL	156	70-130	2	20
n-Propylbenzene	**23.1**		µg/l		20.0	BRL	115	70-130	2	20
Styrene	**21.2**		µg/l		20.0	BRL	106	70-130	0.4	20
1,1,1,2-Tetrachloroethane	**21.1**		µg/l		20.0	BRL	105	70-130	1	20
1,1,2,2-Tetrachloroethane	**22.9**		µg/l		20.0	BRL	114	70-130	9	20
Tetrachloroethene	**21.9**		µg/l		20.0	2.64	96	70-130	11	20
Toluene	**19.6**		µg/l		20.0	BRL	98	70-130	5	20
1,2,3-Trichlorobenzene	**26.7**	QM7	µg/l		20.0	BRL	133	70-130	0.9	20
1,2,4-Trichlorobenzene	**25.6**		µg/l		20.0	BRL	128	70-130	0	20
1,3,5-Trichlorobenzene	**22.6**		µg/l		20.0	BRL	113	70-130	3	20
1,1,1-Trichloroethane	**40.3**		µg/l		20.0	19.7	103	70-130	2	20
1,1,2-Trichloroethane	**22.7**		µg/l		20.0	BRL	113	70-130	8	20
Trichloroethene	**23.1**		µg/l		20.0	2.64	102	70-130	8	20
Trichlorofluoromethane (Freon 11)	**23.6**		µg/l		20.0	BRL	118	70-130	7	20
1,2,3-Trichloropropane	**22.5**		µg/l		20.0	BRL	113	70-130	8	20
1,2,4-Trimethylbenzene	**32.4**	QM7	µg/l		20.0	77.6	-226	70-130	NR	20
1,3,5-Trimethylbenzene	**26.8**	QM7	µg/l		20.0	37.0	-51	70-130	NR	20
Vinyl chloride	**22.8**		µg/l		20.0	BRL	114	70-130	8	20
m,p-Xylene	**42.4**		µg/l		40.0	1.56	102	70-130	3	20
o-Xylene	**22.4**		µg/l		20.0	1.44	105	70-130	6	20
Tetrahydrofuran	**18.6**		µg/l		20.0	BRL	93	70-130	12	20
Ethyl ether	**23.3**		µg/l		20.0	BRL	116	70-130	8	20
Tert-amyl methyl ether	**21.3**		µg/l		20.0	BRL	107	70-130	5	20
Ethyl tert-butyl ether	**20.9**		µg/l		20.0	BRL	104	70-130	2	20
Di-isopropyl ether	**19.3**		µg/l		20.0	BRL	96	70-130	2	20
Tert-Butanol / butyl alcohol	**264**	QM7	µg/l		200	BRL	132	70-130	15	20
1,4-Dioxane	**255**		µg/l		200	BRL	128	70-130	14	20
trans-1,4-Dichloro-2-butene	**22.0**		µg/l		20.0	BRL	110	70-130	0.2	20
Ethanol	**536**	QM7	µg/l		400	BRL	134	70-130	10	20
Surrogate: 4-Bromofluorobenzene	*31.4*		µg/l		*30.0*		*104*	*70-130*		
Surrogate: Toluene-d8	*30.2*		µg/l		*30.0*		*101*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*31.7*		µg/l		*30.0*		*106*	*70-130*		
Surrogate: Dibromofluoromethane	*31.0*		µg/l		*30.0*		*104*	*70-130*		

Semivolatile Organic Compounds by GCMS - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1223122 - SW846 3510C										
Blank (1223122-BLK1)					Prepared & Analyzed: 24-Sep-12					
Acenaphthene	< 5.00		µg/l	5.00						
Acenaphthylene	< 5.00		µg/l	5.00						
Aniline	< 5.00		µg/l	5.00						
Anthracene	< 5.00		µg/l	5.00						
Azobenzene/Diphenyldiazine	< 5.00		µg/l	5.00						
Benzidine	< 5.00		µg/l	5.00						
Benzo (a) anthracene	< 5.00		µg/l	5.00						
Benzo (a) pyrene	< 5.00		µg/l	5.00						
Benzo (b) fluoranthene	< 5.00		µg/l	5.00						
Benzo (g,h,i) perylene	< 5.00		µg/l	5.00						
Benzo (k) fluoranthene	< 5.00		µg/l	5.00						
Benzoic acid	< 5.00		µg/l	5.00						
Benzyl alcohol	< 5.00		µg/l	5.00						
Bis(2-chloroethoxy)methane	< 5.00		µg/l	5.00						
Bis(2-chloroethyl)ether	< 5.00		µg/l	5.00						
Bis(2-chloroisopropyl)ether	< 5.00		µg/l	5.00						
Bis(2-ethylhexyl)phthalate	< 2.00		µg/l	2.00						
4-Bromophenyl phenyl ether	< 5.00		µg/l	5.00						
Butyl benzyl phthalate	< 5.00		µg/l	5.00						
Carbazole	< 5.00		µg/l	5.00						
4-Chloro-3-methylphenol	< 5.00		µg/l	5.00						
4-Chloroaniline	< 5.00		µg/l	5.00						
2-Chloronaphthalene	< 5.00		µg/l	5.00						
2-Chlorophenol	< 5.00		µg/l	5.00						
4-Chlorophenyl phenyl ether	< 5.00		µg/l	5.00						
Chrysene	< 5.00		µg/l	5.00						
Dibenzo (a,h) anthracene	< 5.00		µg/l	5.00						
Dibenzofuran	< 5.00		µg/l	5.00						
1,2-Dichlorobenzene	< 5.00		µg/l	5.00						
1,3-Dichlorobenzene	< 5.00		µg/l	5.00						
1,4-Dichlorobenzene	< 5.00		µg/l	5.00						
3,3'-Dichlorobenzidine	< 5.00		µg/l	5.00						
2,4-Dichlorophenol	< 5.00		µg/l	5.00						
Diethyl phthalate	< 5.00		µg/l	5.00						
Dimethyl phthalate	< 5.00		µg/l	5.00						
2,4-Dimethylphenol	< 5.00		µg/l	5.00						
Di-n-butyl phthalate	< 5.00		µg/l	5.00						
4,6-Dinitro-2-methylphenol	< 5.00		µg/l	5.00						
2,4-Dinitrophenol	< 5.00		µg/l	5.00						
2,4-Dinitrotoluene	< 5.00		µg/l	5.00						
2,6-Dinitrotoluene	< 5.00		µg/l	5.00						
Di-n-octyl phthalate	< 5.00		µg/l	5.00						
Fluoranthene	< 5.00		µg/l	5.00						
Fluorene	< 5.00		µg/l	5.00						
Hexachlorobenzene	< 5.00		µg/l	5.00						
Hexachlorobutadiene	< 5.00		µg/l	5.00						
Hexachlorocyclopentadiene	< 5.00		µg/l	5.00						
Hexachloroethane	< 5.00		µg/l	5.00						
Indeno (1,2,3-cd) pyrene	< 5.00		µg/l	5.00						
Isophorone	< 5.00		µg/l	5.00						
2-Methylnaphthalene	< 5.00		µg/l	5.00						
2-Methylphenol	< 5.00		µg/l	5.00						

Semivolatile Organic Compounds by GCMS - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1223122 - SW846 3510C										
Blank (1223122-BLK1)					Prepared & Analyzed: 24-Sep-12					
3 & 4-Methylphenol	< 10.0		µg/l	10.0						
Naphthalene	< 5.00		µg/l	5.00						
2-Nitroaniline	< 5.00		µg/l	5.00						
3-Nitroaniline	< 5.00		µg/l	5.00						
4-Nitroaniline	< 20.0		µg/l	20.0						
Nitrobenzene	< 5.00		µg/l	5.00						
2-Nitrophenol	< 5.00		µg/l	5.00						
4-Nitrophenol	< 20.0		µg/l	20.0						
N-Nitrosodimethylamine	< 5.00		µg/l	5.00						
N-Nitrosodi-n-propylamine	< 5.00		µg/l	5.00						
N-Nitrosodiphenylamine	< 5.00		µg/l	5.00						
Pentachlorophenol	< 20.0		µg/l	20.0						
Phenanthrene	< 5.00		µg/l	5.00						
Phenol	< 5.00		µg/l	5.00						
Pyrene	< 5.00		µg/l	5.00						
Pyridine	< 5.00		µg/l	5.00						
1,2,4-Trichlorobenzene	< 5.00		µg/l	5.00						
1-Methylnaphthalene	< 5.00		µg/l	5.00						
2,4,5-Trichlorophenol	< 5.00		µg/l	5.00						
2,4,6-Trichlorophenol	< 5.00		µg/l	5.00						
Pentachloronitrobenzene	< 5.00		µg/l	5.00						
1,2,4,5-Tetrachlorobenzene	< 5.00		µg/l	5.00						
Surrogate: 2-Fluorobiphenyl	*30.9*		µg/l		*50.0*		*62*	*30-130*		
Surrogate: 2-Fluorophenol	*23.6*		µg/l		*50.0*		*47*	*15-110*		
Surrogate: Nitrobenzene-d5	*31.6*		µg/l		*50.0*		*63*	*30-130*		
Surrogate: Phenol-d5	*17.4*		µg/l		*50.0*		*35*	*15-110*		
Surrogate: Terphenyl-dl4	*36.3*		µg/l		*50.0*		*73*	*30-130*		
Surrogate: 2,4,6-Tribromophenol	*31.5*		µg/l		*50.0*		*63*	*15-110*		
Blank (1223122-BLK2)					Prepared: 24-Sep-12 Analyzed: 26-Sep-12					
Acenaphthene	< 0.050		µg/l	0.050						
Acenaphthylene	< 0.050		µg/l	0.050						
1-Methylnaphthalene	< 0.050		µg/l	0.050						
Anthracene	< 0.050		µg/l	0.050						
Benzo (a) anthracene	< 0.050		µg/l	0.050						
Benzo (a) pyrene	< 0.050		µg/l	0.050						
Benzo (b) fluoranthene	< 0.050		µg/l	0.050						
Benzo (g,h,i) perylene	< 0.050		µg/l	0.050						
Benzo (k) fluoranthene	< 0.050		µg/l	0.050						
Chrysene	< 0.050		µg/l	0.050						
Dibenzo (a,h) anthracene	< 0.050		µg/l	0.050						
Fluoranthene	< 0.050		µg/l	0.050						
Fluorene	< 0.050		µg/l	0.050						
Indeno (1,2,3-cd) pyrene	< 0.050		µg/l	0.050						
2-Methylnaphthalene	< 0.050		µg/l	0.050						
Naphthalene	< 0.050		µg/l	0.050						
Phenanthrene	< 0.050		µg/l	0.050						
Pyrene	< 0.050		µg/l	0.050						
Surrogate: 2-Fluorobiphenyl	*29.0*		µg/l		*50.0*		*58*	*30-130*		
Surrogate: Terphenyl-dl4	*31.5*		µg/l		*50.0*		*63*	*30-130*		
LCS (1223122-BS1)					Prepared & Analyzed: 24-Sep-12					
Acenaphthene	**35.3**		µg/l	5.00	50.0		71	40-140		

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Semivolatile Organic Compounds by GCMS - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1223122 - SW846 3510C										
LCS (1223122-BS1)					Prepared & Analyzed: 24-Sep-12					
Acenaphthylene	**35.8**		µg/l	5.00	50.0		72	40-140		
Aniline	**27.9**		µg/l	5.00	50.0		56	40-140		
Anthracene	**36.4**		µg/l	5.00	50.0		73	40-140		
Azobenzene/Diphenyldiazine	**36.0**		µg/l	5.00	50.0		72	40-140		
Benzidine	< 5.00	QC2	µg/l	5.00	50.0			40-140		
Benzo (a) anthracene	**36.7**		µg/l	5.00	50.0		73	40-140		
Benzo (a) pyrene	**37.1**		µg/l	5.00	50.0		74	40-140		
Benzo (b) fluoranthene	**38.1**		µg/l	5.00	50.0		76	40-140		
Benzo (g,h,i) perylene	**34.5**		µg/l	5.00	50.0		69	40-140		
Benzo (k) fluoranthene	**37.0**		µg/l	5.00	50.0		74	40-140		
Benzoic acid	**20.8**		µg/l	5.00	50.0		42	30-130		
Benzyl alcohol	**33.2**		µg/l	5.00	50.0		66	40-140		
Bis(2-chloroethoxy)methane	**29.0**		µg/l	5.00	50.0		58	40-140		
Bis(2-chloroethyl)ether	**32.0**		µg/l	5.00	50.0		64	40-140		
Bis(2-chloroisopropyl)ether	**34.6**		µg/l	5.00	50.0		69	40-140		
Bis(2-ethylhexyl)phthalate	**36.0**		µg/l	5.00	50.0		72	40-140		
4-Bromophenyl phenyl ether	**33.1**		µg/l	5.00	50.0		66	40-140		
Butyl benzyl phthalate	**34.3**		µg/l	5.00	50.0		69	40-140		
Carbazole	**36.6**		µg/l	5.00	50.0		73	40-140		
4-Chloro-3-methylphenol	**38.8**		µg/l	5.00	50.0		78	30-130		
4-Chloroaniline	**33.7**		µg/l	5.00	50.0		67	40-140		
2-Chloronaphthalene	**34.5**		µg/l	5.00	50.0		69	40-140		
2-Chlorophenol	**35.0**		µg/l	5.00	50.0		70	30-130		
4-Chlorophenyl phenyl ether	**35.2**		µg/l	5.00	50.0		70	40-140		
Chrysene	**35.7**		µg/l	5.00	50.0		71	40-140		
Dibenzo (a,h) anthracene	**37.1**		µg/l	5.00	50.0		74	40-140		
Dibenzofuran	**34.9**		µg/l	5.00	50.0		70	40-140		
1,2-Dichlorobenzene	**34.6**		µg/l	5.00	50.0		69	40-140		
1,3-Dichlorobenzene	**31.9**		µg/l	5.00	50.0		64	40-140		
1,4-Dichlorobenzene	**32.4**		µg/l	5.00	50.0		65	40-140		
3,3'-Dichlorobenzidine	**38.6**		µg/l	5.00	50.0		77	40-140		
2,4-Dichlorophenol	**34.9**		µg/l	5.00	50.0		70	30-130		
Diethyl phthalate	**36.2**		µg/l	5.00	50.0		72	40-140		
Dimethyl phthalate	**34.6**		µg/l	5.00	50.0		69	40-140		
2,4-Dimethylphenol	**32.9**		µg/l	5.00	50.0		66	30-130		
Di-n-butyl phthalate	**34.8**		µg/l	5.00	50.0		70	40-140		
4,6-Dinitro-2-methylphenol	**34.7**		µg/l	5.00	50.0		69	30-130		
2,4-Dinitrophenol	**30.2**		µg/l	5.00	50.0		60	30-130		
2,4-Dinitrotoluene	**35.6**		µg/l	5.00	50.0		71	40-140		
2,6-Dinitrotoluene	**35.6**		µg/l	5.00	50.0		71	40-140		
Di-n-octyl phthalate	**36.7**		µg/l	5.00	50.0		73	40-140		
Fluoranthene	**36.4**		µg/l	5.00	50.0		73	40-140		
Fluorene	**35.7**		µg/l	5.00	50.0		71	40-140		
Hexachlorobenzene	**35.8**		µg/l	5.00	50.0		72	40-140		
Hexachlorobutadiene	**29.0**		µg/l	5.00	50.0		58	40-140		
Hexachlorocyclopentadiene	**29.8**		µg/l	5.00	50.0		60	40-140		
Hexachloroethane	**34.8**		µg/l	5.00	50.0		70	40-140		
Indeno (1,2,3-cd) pyrene	**37.1**		µg/l	5.00	50.0		74	40-140		
Isophorone	**33.3**		µg/l	5.00	50.0		67	40-140		
2-Methylnaphthalene	**34.8**		µg/l	5.00	50.0		70	40-140		
2-Methylphenol	**32.8**		µg/l	5.00	50.0		66	30-130		
3 & 4-Methylphenol	**33.3**		µg/l	10.0	50.0		67	30-130		

Semivolatile Organic Compounds by GCMS - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1223122 - SW846 3510C										
LCS (1223122-BS1)					Prepared & Analyzed: 24-Sep-12					
Naphthalene	**33.5**		µg/l	5.00	50.0		67	40-140		
2-Nitroaniline	**36.4**		µg/l	5.00	50.0		73	40-140		
3-Nitroaniline	**37.5**		µg/l	5.00	50.0		75	40-140		
4-Nitroaniline	**35.7**		µg/l	20.0	50.0		71	40-140		
Nitrobenzene	**42.3**		µg/l	5.00	50.0		85	40-140		
2-Nitrophenol	**34.5**		µg/l	5.00	50.0		69	30-130		
4-Nitrophenol	**23.0**		µg/l	20.0	50.0		46	30-130		
N-Nitrosodimethylamine	**22.3**		µg/l	5.00	50.0		45	40-140		
N-Nitrosodi-n-propylamine	**35.6**		µg/l	5.00	50.0		71	40-140		
N-Nitrosodiphenylamine	**35.8**		µg/l	5.00	50.0		72	40-140		
Pentachlorophenol	**32.6**		µg/l	20.0	50.0		65	30-130		
Phenanthrene	**35.9**		µg/l	5.00	50.0		72	40-140		
Phenol	**17.9**		µg/l	5.00	50.0		36	30-130		
Pyrene	**37.7**		µg/l	5.00	50.0		75	40-140		
Pyridine	**8.92**	QC2	µg/l	5.00	50.0		18	40-140		
1,2,4-Trichlorobenzene	**31.0**		µg/l	5.00	50.0		62	40-140		
1-Methylnaphthalene	**34.4**		µg/l	5.00	50.0		69	40-140		
2,4,5-Trichlorophenol	**34.8**		µg/l	5.00	50.0		70	30-130		
2,4,6-Trichlorophenol	**35.2**		µg/l	5.00	50.0		70	30-130		
Pentachloronitrobenzene	**35.5**		µg/l	5.00	50.0		71	40-140		
1,2,4,5-Tetrachlorobenzene	**34.1**		µg/l	5.00	50.0		68	40-140		
Surrogate: 2-Fluorobiphenyl	*34.7*		µg/l		*50.0*		*69*	*30-130*		
Surrogate: 2-Fluorophenol	*24.7*		µg/l		*50.0*		*49*	*15-110*		
Surrogate: Nitrobenzene-d5	*36.3*		µg/l		*50.0*		*73*	*30-130*		
Surrogate: Phenol-d5	*19.9*		µg/l		*50.0*		*40*	*15-110*		
Surrogate: Terphenyl-dl4	*41.4*		µg/l		*50.0*		*83*	*30-130*		
Surrogate: 2,4,6-Tribromophenol	*35.9*		µg/l		*50.0*		*72*	*15-110*		
LCS (1223122-BS2)					Prepared: 24-Sep-12 Analyzed: 26-Sep-12					
Acenaphthene	**0.626**		µg/l	0.050	1.00		63	40-140		
Acenaphthylene	**0.607**		µg/l	0.050	1.00		61	40-140		
1-Methylnaphthalene	**0.600**		µg/l	0.050	1.00		60	40-140		
Anthracene	**0.662**		µg/l	0.050	1.00		66	40-140		
Benzo (a) anthracene	**0.698**		µg/l	0.050	1.00		70	40-140		
Benzo (a) pyrene	**0.639**		µg/l	0.050	1.00		64	40-140		
Benzo (b) fluoranthene	**0.645**		µg/l	0.050	1.00		64	40-140		
Benzo (g,h,i) perylene	**0.772**		µg/l	0.050	1.00		77	40-140		
Benzo (k) fluoranthene	**0.692**		µg/l	0.050	1.00		69	40-140		
Chrysene	**0.672**		µg/l	0.050	1.00		67	40-140		
Dibenzo (a,h) anthracene	**0.801**		µg/l	0.050	1.00		80	40-140		
Fluoranthene	**0.695**		µg/l	0.050	1.00		70	40-140		
Fluorene	**0.663**		µg/l	0.050	1.00		66	40-140		
Indeno (1,2,3-cd) pyrene	**0.728**		µg/l	0.050	1.00		73	40-140		
2-Methylnaphthalene	**0.706**		µg/l	0.050	1.00		71	40-140		
Naphthalene	**0.608**		µg/l	0.050	1.00		61	40-140		
Phenanthrene	**0.641**		µg/l	0.050	1.00		64	40-140		
Pyrene	**0.665**		µg/l	0.050	1.00		66	40-140		
Surrogate: 2-Fluorobiphenyl	*0.630*		µg/l		*1.00*		*63*	*30-130*		
Surrogate: Terphenyl-dl4	*0.690*		µg/l		*1.00*		*69*	*30-130*		
LCS Dup (1223122-BSD1)					Prepared: 24-Sep-12 Analyzed: 25-Sep-12					
Acenaphthene	**42.8**		µg/l	5.00	50.0		86	40-140	19	20
Acenaphthylene	**43.5**		µg/l	5.00	50.0		87	40-140	19	20

Semivolatile Organic Compounds by GCMS - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1223122 - SW846 3510C										
LCS Dup (1223122-BSD1)					Prepared: 24-Sep-12 Analyzed: 25-Sep-12					
Aniline	**20.7**	QR2	µg/l	5.00	50.0		41	40-140	30	20
Anthracene	**42.3**		µg/l	5.00	50.0		85	40-140	15	20
Azobenzene/Diphenyldiazine	**41.1**		µg/l	5.00	50.0		82	40-140	13	20
Benzidine	**16.8**	QC2	µg/l	5.00	50.0		34	40-140		20
Benzo (a) anthracene	**43.4**		µg/l	5.00	50.0		87	40-140	17	20
Benzo (a) pyrene	**45.0**		µg/l	5.00	50.0		90	40-140	19	20
Benzo (b) fluoranthene	**51.3**	QR2	µg/l	5.00	50.0		103	40-140	29	20
Benzo (g,h,i) perylene	**30.4**		µg/l	5.00	50.0		61	40-140	13	20
Benzo (k) fluoranthene	**45.7**	QR2	µg/l	5.00	50.0		91	40-140	21	20
Benzoic acid	**47.0**	QR2	µg/l	5.00	50.0		94	30-130	77	20
Benzyl alcohol	**37.6**		µg/l	5.00	50.0		75	40-140	12	20
Bis(2-chloroethoxy)methane	**33.6**		µg/l	5.00	50.0		67	40-140	15	20
Bis(2-chloroethyl)ether	**42.0**	QR2	µg/l	5.00	50.0		84	40-140	27	20
Bis(2-chloroisopropyl)ether	**40.9**		µg/l	5.00	50.0		82	40-140	17	20
Bis(2-ethylhexyl)phthalate	**41.7**		µg/l	5.00	50.0		83	40-140	15	20
4-Bromophenyl phenyl ether	**39.3**		µg/l	5.00	50.0		79	40-140	17	20
Butyl benzyl phthalate	**40.6**		µg/l	5.00	50.0		81	40-140	17	20
Carbazole	**43.0**		µg/l	5.00	50.0		86	40-140	16	20
4-Chloro-3-methylphenol	**45.4**		µg/l	5.00	50.0		91	30-130	16	20
4-Chloroaniline	**15.2**	QM9, QR9	µg/l	5.00	50.0		30	40-140	76	20
2-Chloronaphthalene	**42.3**		µg/l	5.00	50.0		85	40-140	20	20
2-Chlorophenol	**42.5**		µg/l	5.00	50.0		85	30-130	19	20
4-Chlorophenyl phenyl ether	**43.3**	QR2	µg/l	5.00	50.0		87	40-140	21	20
Chrysene	**42.6**		µg/l	5.00	50.0		85	40-140	17	20
Dibenzo (a,h) anthracene	**35.6**		µg/l	5.00	50.0		71	40-140	4	20
Dibenzofuran	**41.9**		µg/l	5.00	50.0		84	40-140	18	20
1,2-Dichlorobenzene	**43.9**	QR2	µg/l	5.00	50.0		88	40-140	24	20
1,3-Dichlorobenzene	**40.4**	QR2	µg/l	5.00	50.0		81	40-140	23	20
1,4-Dichlorobenzene	**41.5**	QR2	µg/l	5.00	50.0		83	40-140	25	20
3,3'-Dichlorobenzidine	**38.0**		µg/l	5.00	50.0		76	40-140	2	20
2,4-Dichlorophenol	**42.2**		µg/l	5.00	50.0		84	30-130	19	20
Diethyl phthalate	**42.3**		µg/l	5.00	50.0		85	40-140	15	20
Dimethyl phthalate	**42.2**		µg/l	5.00	50.0		84	40-140	20	20
2,4-Dimethylphenol	**40.1**		µg/l	5.00	50.0		80	30-130	20	20
Di-n-butyl phthalate	**40.0**		µg/l	5.00	50.0		80	40-140	14	20
4,6-Dinitro-2-methylphenol	**25.6**	QR2	µg/l	5.00	50.0		51	30-130	30	20
2,4-Dinitrophenol	**20.2**	QR2	µg/l	5.00	50.0		40	30-130	39	20
2,4-Dinitrotoluene	**41.9**		µg/l	5.00	50.0		84	40-140	16	20
2,6-Dinitrotoluene	**42.7**		µg/l	5.00	50.0		85	40-140	18	20
Di-n-octyl phthalate	**53.2**	QR2	µg/l	5.00	50.0		106	40-140	37	20
Fluoranthene	**42.1**		µg/l	5.00	50.0		84	40-140	14	20
Fluorene	**42.3**		µg/l	5.00	50.0		85	40-140	17	20
Hexachlorobenzene	**42.2**		µg/l	5.00	50.0		84	40-140	17	20
Hexachlorobutadiene	**37.4**	QR2	µg/l	5.00	50.0		75	40-140	25	20
Hexachlorocyclopentadiene	**15.4**	QM9, QR9	µg/l	5.00	50.0		31	40-140	64	20
Hexachloroethane	**43.4**	QR2	µg/l	5.00	50.0		87	40-140	22	20
Indeno (1,2,3-cd) pyrene	**35.4**		µg/l	5.00	50.0		71	40-140	5	20
Isophorone	**38.2**		µg/l	5.00	50.0		76	40-140	14	20
2-Methylnaphthalene	**41.7**		µg/l	5.00	50.0		83	40-140	18	20
2-Methylphenol	**41.6**	QR2	µg/l	5.00	50.0		83	30-130	24	20
3 & 4-Methylphenol	**44.7**	QR2	µg/l	10.0	50.0		89	30-130	29	20

Semivolatile Organic Compounds by GCMS - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1223122 - SW846 3510C										
LCS Dup (1223122-BSD1)					Prepared: 24-Sep-12 Analyzed: 25-Sep-12					
Naphthalene	**40.7**		µg/l	5.00	50.0		81	40-140	19	20
2-Nitroaniline	**42.8**		µg/l	5.00	50.0		86	40-140	16	20
3-Nitroaniline	**17.7**	QM9, QR9	µg/l	5.00	50.0		35	40-140	72	20
4-Nitroaniline	**36.6**		µg/l	20.0	50.0		73	40-140	2	20
Nitrobenzene	**53.8**	QR2	µg/l	5.00	50.0		108	40-140	24	20
2-Nitrophenol	**42.3**		µg/l	5.00	50.0		85	30-130	20	20
4-Nitrophenol	**48.6**	QR2	µg/l	20.0	50.0		97	30-130	71	20
N-Nitrosodimethylamine	**38.2**	QR2	µg/l	5.00	50.0		76	40-140	53	20
N-Nitrosodi-n-propylamine	**41.2**		µg/l	5.00	50.0		82	40-140	15	20
N-Nitrosodiphenylamine	**42.3**		µg/l	5.00	50.0		85	40-140	17	20
Pentachlorophenol	**37.2**		µg/l	20.0	50.0		74	30-130	13	20
Phenanthrene	**41.8**		µg/l	5.00	50.0		84	40-140	15	20
Phenol	**41.8**	QR2	µg/l	5.00	50.0		84	30-130	80	20
Pyrene	**46.3**		µg/l	5.00	50.0		93	40-140	20	20
Pyridine	**36.4**	QR2	µg/l	5.00	50.0		73	40-140	121	20
1,2,4-Trichlorobenzene	**39.3**	QR2	µg/l	5.00	50.0		79	40-140	23	20
1-Methylnaphthalene	**42.1**		µg/l	5.00	50.0		84	40-140	20	20
2,4,5-Trichlorophenol	**41.8**		µg/l	5.00	50.0		84	30-130	18	20
2,4,6-Trichlorophenol	**43.4**	QR2	µg/l	5.00	50.0		87	30-130	21	20
Pentachloronitrobenzene	**42.4**		µg/l	5.00	50.0		85	40-140	18	20
1,2,4,5-Tetrachlorobenzene	**43.0**	QR2	µg/l	5.00	50.0		86	40-140	23	20
Surrogate: 2-Fluorobiphenyl	*42.2*		µg/l		*50.0*		*84*	*30-130*		
Surrogate: 2-Fluorophenol	*40.4*		µg/l		*50.0*		*81*	*15-110*		
Surrogate: Nitrobenzene-d5	*41.9*		µg/l		*50.0*		*84*	*30-130*		
Surrogate: Phenol-d5	*44.7*		µg/l		*50.0*		*89*	*15-110*		
Surrogate: Terphenyl-d14	*49.6*		µg/l		*50.0*		*99*	*30-130*		
Surrogate: 2,4,6-Tribromophenol	*42.1*		µg/l		*50.0*		*84*	*15-110*		
LCS Dup (1223122-BSD2)					Prepared: 24-Sep-12 Analyzed: 26-Sep-12					
Acenaphthene	**0.550**		µg/l	0.050	1.00		55	40-140	13	20
Acenaphthylene	**0.555**		µg/l	0.050	1.00		56	40-140	9	20
1-Methylnaphthalene	**0.572**		µg/l	0.050	1.00		57	40-140	5	20
Anthracene	**0.588**		µg/l	0.050	1.00		59	40-140	12	20
Benzo (a) anthracene	**0.651**		µg/l	0.050	1.00		65	40-140	7	20
Benzo (a) pyrene	**0.593**		µg/l	0.050	1.00		59	40-140	7	20
Benzo (b) fluoranthene	**0.600**		µg/l	0.050	1.00		60	40-140	7	20
Benzo (g,h,i) perylene	**0.678**		µg/l	0.050	1.00		68	40-140	13	20
Benzo (k) fluoranthene	**0.618**		µg/l	0.050	1.00		62	40-140	11	20
Chrysene	**0.629**		µg/l	0.050	1.00		63	40-140	7	20
Dibenzo (a,h) anthracene	**0.704**		µg/l	0.050	1.00		70	40-140	13	20
Fluoranthene	**0.652**		µg/l	0.050	1.00		65	40-140	6	20
Fluorene	**0.598**		µg/l	0.050	1.00		60	40-140	10	20
Indeno (1,2,3-cd) pyrene	**0.647**		µg/l	0.050	1.00		65	40-140	12	20
2-Methylnaphthalene	**0.612**		µg/l	0.050	1.00		61	40-140	14	20
Naphthalene	**0.586**		µg/l	0.050	1.00		59	40-140	4	20
Phenanthrene	**0.608**		µg/l	0.050	1.00		61	40-140	5	20
Pyrene	**0.587**		µg/l	0.050	1.00		59	40-140	12	20
Surrogate: 2-Fluorobiphenyl	*0.620*		µg/l		*1.00*		*62*	*30-130*		
Surrogate: Terphenyl-d14	*0.650*		µg/l		*1.00*		*65*	*30-130*		

Semivolatile Organic Compounds by GC - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1223126 - SW846 3510C										
Blank (1223126-BLK1)						Prepared: 24-Sep-12 Analyzed: 25-Sep-12				
Aroclor-1016	< 0.200		µg/l	0.200						
Aroclor-1016 [2C]	< 0.200		µg/l	0.200						
Aroclor-1221	< 0.200		µg/l	0.200						
Aroclor-1221 [2C]	< 0.200		µg/l	0.200						
Aroclor-1232	< 0.200		µg/l	0.200						
Aroclor-1232 [2C]	< 0.200		µg/l	0.200						
Aroclor-1242	< 0.200		µg/l	0.200						
Aroclor-1242 [2C]	< 0.200		µg/l	0.200						
Aroclor-1248	< 0.200		µg/l	0.200						
Aroclor-1248 [2C]	< 0.200		µg/l	0.200						
Aroclor-1254	< 0.200		µg/l	0.200						
Aroclor-1254 [2C]	< 0.200		µg/l	0.200						
Aroclor-1260	< 0.200		µg/l	0.200						
Aroclor-1260 [2C]	< 0.200		µg/l	0.200						
Aroclor-1262	< 0.200		µg/l	0.200						
Aroclor-1262 [2C]	< 0.200		µg/l	0.200						
Aroclor-1268	< 0.200		µg/l	0.200						
Aroclor-1268 [2C]	< 0.200		µg/l	0.200						
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	*0.170*		µg/l		*0.200*		*85*	*30-150*		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C]	*0.160*		µg/l		*0.200*		*80*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr)	*0.160*		µg/l		*0.200*		*80*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr) [2C]	*0.120*		µg/l		*0.200*		*60*	*30-150*		
LCS (1223126-BS1)						Prepared: 24-Sep-12 Analyzed: 25-Sep-12				
Aroclor-1016	**2.69**		µg/l	0.200	2.50		108	40-140		
Aroclor-1016 [2C]	**2.73**		µg/l	0.200	2.50		109	40-140		
Aroclor-1260	**2.08**		µg/l	0.200	2.50		83	40-140		
Aroclor-1260 [2C]	**2.08**		µg/l	0.200	2.50		83	40-140		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	*0.220*		µg/l		*0.200*		*110*	*30-150*		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C]	*0.210*		µg/l		*0.200*		*105*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr)	*0.230*		µg/l		*0.200*		*115*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr) [2C]	*0.160*		µg/l		*0.200*		*80*	*30-150*		
LCS Dup (1223126-BSD1)						Prepared: 24-Sep-12 Analyzed: 25-Sep-12				
Aroclor-1016	**2.71**		µg/l	0.200	2.50		108	40-140	0.7	20
Aroclor-1016 [2C]	**2.65**		µg/l	0.200	2.50		106	40-140	3	20
Aroclor-1260	**2.20**		µg/l	0.200	2.50		88	40-140	6	20
Aroclor-1260 [2C]	**2.02**		µg/l	0.200	2.50		81	40-140	3	20
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	*0.220*		µg/l		*0.200*		*110*	*30-150*		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C]	*0.210*		µg/l		*0.200*		*105*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr)	*0.240*		µg/l		*0.200*		*120*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr) [2C]	*0.150*		µg/l		*0.200*		*75*	*30-150*		

TCLP Metals by EPA 1311 & 6000/7000 Series Methods - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1223840 - SW846 3010A										
Blank (1223840-BLK1)					Prepared: 01-Oct-12 Analyzed: 02-Oct-12					
Lead	< 0.0150		mg/l	0.0150						
Selenium	< 0.0300		mg/l	0.0300						
Arsenic	< 0.0080		mg/l	0.0080						
Chromium	< 0.0100		mg/l	0.0100						
Cadmium	< 0.0050		mg/l	0.0050						
Silver	< 0.0100		mg/l	0.0100						
Barium	< 0.0100		mg/l	0.0100						
LCS (1223840-BS1)					Prepared: 01-Oct-12 Analyzed: 03-Oct-12					
Lead	**2.85**		mg/l	0.0150	2.50		114	85-115		
Selenium	**2.70**		mg/l	0.0300	2.50		108	85-115		
Arsenic	**2.81**		mg/l	0.0080	2.50		112	85-115		
Cadmium	**2.99**	QC2	mg/l	0.0050	2.50		119	85-115		
Chromium	**2.89**	QC2	mg/l	0.0100	2.50		116	85-115		
Silver	**2.73**		mg/l	0.0100	2.50		109	85-115		
Barium	**2.79**		mg/l	0.0100	2.50		112	85-115		
LCS Dup (1223840-BSD1)					Prepared: 01-Oct-12 Analyzed: 03-Oct-12					
Selenium	**2.67**		mg/l	0.0300	2.50		107	85-115	1	20
Lead	**2.85**		mg/l	0.0150	2.50		114	85-115	0.2	20
Cadmium	**2.99**	QC2	mg/l	0.0050	2.50		119	85-115	0.01	20
Chromium	**2.90**	QC2	mg/l	0.0100	2.50		116	85-115	0.07	20
Arsenic	**2.79**		mg/l	0.0080	2.50		112	85-115	0.7	20
Silver	**2.79**		mg/l	0.0100	2.50		112	85-115	2	104
Barium	**2.80**		mg/l	0.0100	2.50		112	85-115	0.4	20
Duplicate (1223840-DUP1)			**Source: SB56741-01**			Prepared: 01-Oct-12 Analyzed: 03-Oct-12				
Lead	**0.0065**	J	mg/l	0.0150		0.0064			2	20
Selenium	< 0.0300		mg/l	0.0300		BRL				20
Silver	< 0.0100		mg/l	0.0100		BRL				20
Cadmium	< 0.0050		mg/l	0.0050		BRL				20
Arsenic	< 0.0080		mg/l	0.0080		BRL				20
Chromium	< 0.0100		mg/l	0.0100		BRL				20
Barium	**0.0250**		mg/l	0.0100		0.0240			4	20
Matrix Spike (1223840-MS1)			**Source: SB56741-01**			Prepared: 01-Oct-12 Analyzed: 03-Oct-12				
Selenium	**2.76**		mg/l	0.0300	2.50	BRL	110	75-125		
Lead	**2.85**		mg/l	0.0150	2.50	0.0064	114	75-125		
Chromium	**2.92**		mg/l	0.0100	2.50	BRL	117	75-125		
Cadmium	**3.03**		mg/l	0.0050	2.50	BRL	121	75-125		
Silver	**2.46**		mg/l	0.0100	2.50	BRL	99	75-125		
Arsenic	**2.89**		mg/l	0.0080	2.50	BRL	115	75-125		
Barium	**2.81**		mg/l	0.0100	2.50	0.0240	111	75-125		
Matrix Spike Dup (1223840-MSD1)			**Source: SB56741-01**			Prepared: 01-Oct-12 Analyzed: 03-Oct-12				
Lead	**2.82**		mg/l	0.0150	2.50	0.0064	112	75-125	1	20
Selenium	**2.69**		mg/l	0.0300	2.50	BRL	107	75-125	3	20
Cadmium	**3.00**		mg/l	0.0050	2.50	BRL	120	75-125	1	20
Chromium	**2.89**		mg/l	0.0100	2.50	BRL	116	75-125	1	20
Arsenic	**2.84**		mg/l	0.0080	2.50	BRL	114	75-125	2	20
Silver	**2.45**		mg/l	0.0100	2.50	BRL	98	75-125	0.4	20
Barium	**2.85**		mg/l	0.0100	2.50	0.0240	113	75-125	1	20
Post Spike (1223840-PS1)			**Source: SB56741-01**			Prepared: 01-Oct-12 Analyzed: 03-Oct-12				
Lead	**2.91**		mg/l	0.0150	2.50	0.0064	116	80-120		
Selenium	**2.81**		mg/l	0.0300	2.50	BRL	112	80-120		
Silver	**2.95**		mg/l	0.0100	2.50	BRL	118	80-120		

TCLP Metals by EPA 1311 & 6000/7000 Series Methods - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1223840 - SW846 3010A										
Post Spike (1223840-PS1)			Source: SB56741-01		Prepared: 01-Oct-12 Analyzed: 03-Oct-12					
Arsenic	**2.95**		mg/l	0.0080	2.50	BRL	118	80-120		
Cadmium	**3.11**	QC2	mg/l	0.0050	2.50	BRL	124	80-120		
Chromium	**2.97**		mg/l	0.0100	2.50	BRL	119	80-120		
Barium	**2.91**		mg/l	0.0100	2.50	0.0240	115	80-120		
Batch 1223841 - EPA200/SW7000 Series										
Blank (1223841-BLK1)					Prepared: 04-Oct-12 Analyzed: 05-Oct-12					
Mercury	< 0.00020		mg/l	0.00020						
LCS (1223841-BS1)					Prepared: 04-Oct-12 Analyzed: 05-Oct-12					
Mercury	**0.00495**		mg/l	0.00020	0.00500		99	85-115		
Duplicate (1223841-DUP1)			Source: SB56741-01		Prepared: 04-Oct-12 Analyzed: 05-Oct-12					
Mercury	< 0.00020		mg/l	0.00020		BRL				20
Matrix Spike (1223841-MS1)			Source: SB56741-01		Prepared: 04-Oct-12 Analyzed: 05-Oct-12					
Mercury	**0.00557**		mg/l	0.00020	0.00500	BRL	111	75-125		
Matrix Spike Dup (1223841-MSD1)			Source: SB56741-01		Prepared: 04-Oct-12 Analyzed: 05-Oct-12					
Mercury	**0.00471**		mg/l	0.00020	0.00500	BRL	94	75-125	17	20
Post Spike (1223841-PS1)			Source: SB56741-01		Prepared: 04-Oct-12 Analyzed: 05-Oct-12					
Mercury	**0.00457**		mg/l	0.00020	0.00500	BRL	91	80-120		

General Chemistry Parameters - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1223011 - General Preparation										
Reference (1223011-SRM1)					Prepared & Analyzed: 21-Sep-12					
pH	**5.95**		pH Units		6.00		99	97.5-102.5		
Reference (1223011-SRM2)					Prepared & Analyzed: 21-Sep-12					
pH	**6.00**		pH Units		6.00		100	97.5-102.5		
Batch 1223555 - General Preparation										
Blank (1223555-BLK1)					Prepared & Analyzed: 27-Sep-12					
Reactivity	**Nonreactive**		mg/l							
Reactive Cyanide	< 25.0		mg/l	25.0						
Reactive Sulfide	< 50.0		mg/l	50.0						
Duplicate (1223555-DUP1)			**Source: SB56741-01**		Prepared & Analyzed: 27-Sep-12					
Reactivity	**Nonreactive**		mg/l			Nonreactive				200
Reactive Cyanide	< 25.0		mg/l	25.0		BRL				20
Reactive Sulfide	< 50.0		mg/l	50.0		BRL				20
Reference (1223555-SRM1)					Prepared & Analyzed: 27-Sep-12					
Reactive Cyanide	**2.93**		mg/l	25.0	100		3	0-200		
Reference (1223555-SRM2)					Prepared & Analyzed: 27-Sep-12					
Reactive Sulfide	**144**		mg/l	50.0	6700		2	0-200		
Batch 1223648 - General Preparation										
Reference (1223648-SRM1)					Prepared & Analyzed: 27-Sep-12					
Flashpoint	**79**		°F		81.0		98	95-105		

Notes and Definitions

QC2	Analyte out of acceptance range in QC spike but no reportable concentration present in sample.
QM7	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
QM9	The spike recovery for this QC sample is outside the established control limits. The sample results for the QC batch were accepted based on LCS/LCSD or SRM recoveries within the control limits.
QR2	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
QR9	RPD out of acceptance range. The batch is accepted based upon LCS and/or LCSD recovery.
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference
J	Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
pH	The method for pH does not stipulate a specific holding time other than to state that the samples should be analyzed as soon as possible. For aqueous samples the 40 CFR 136 specifies a holding time of 15 minutes from sampling to analysis. Therefore all aqueous pH samples not analyzed in the field are considered out of hold time at the time of sample receipt. All soil samples are analyzed as soon as possible after sample receipt.

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

Matrix Spike: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

Method Blank: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

Method Detection Limit (MDL): The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

Reportable Detection Limit (RDL): The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

Surrogate: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

Continuing Calibration Verification: The calibration relationship established during the initial calibration must be verified at periodic intervals. Concentrations, intervals, and criteria are method specific.

Validated by:
Kimberly Wisk
Nicole Leja
Rebecca Merz

81056741 JB

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

CHAIN OF CUSTODY RECORD

Page 1 of 1

Special Handling:
- ☒ Standard TAT - 7 to 10 business days
- ☐ Rush TAT - Date Needed: _____
- All TATs subject to laboratory approval.
- Min. 24-hour notification needed for rushes.
- Samples disposed of after 60 days unless otherwise instructed.

Report To: New England Disposal Technology Inc
83 Gilmore Dr
Sutton, MA 01590

Telephone #: 508-234-4440
Project Mgr. Len Cohen

Invoice To: SAME

P.O. No.: _____ RQN: _____

Project No.: 13-13623
Site Name: Former Chromium Process Storage Pond
Location: Shelton State: CT
Sampler(s): Len Cohen

1=$Na_2S_2O_3$ 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid 7=CH_3OH
8= $NaHSO_4$ 9= Deionized Water 10= 4°C 11= _____

List preservative code below: 10 | 2 | 10 | 10 | 10 | 10 | 10

QA/QC Reporting Notes:
* additional charges may apply

DW=Drinking Water GW=Groundwater WW=Wastewater
O=Oil SW= Surface Water SO=Soil SL=Sludge A=Air
X1= _____ X2= _____ X3= _____

G=Grab C=Composite

Lab Id:	Sample Id:	Date:	Time:	Type	Matrix	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic		TCLP RCRA 8	Total VOC	Total SVOC	pH	Flash	Reactivity	Total PCB		State-specific reporting standards:
56741-01	Liquid IDW	9/21/12	10:16A	C	GW	2	3				✓	✓	✓	✓	✓	✓	✓		

Containers: # of VOA Vials, # of Amber Glass, # of Clear Glass, # of Plastic
Analyses: TCLP RCRA 8, Total VOC, Total SVOC, pH, Flash, Reactivity, Total PCB

MA DEP MCP CAM Report: Yes☐ No☒
CT DPH RCP Report: Yes☐ No☒

QA/QC Reporting Level
☐ Standard ☐ No QC ☐ DQA*
☐ NY ASP A* ☐ NY ASP B*
☐ NJ Reduced* ☐ NJ Full*
☐ TIER II* ☐ TIER V*
☐ Other _____

Relinquished by:	Received by:	Date:	Time:	Temp°C
	RH	9-21-12	11:50	13.1

☐ EDD Format _____
☐ E-mail to _____

☐ Ambient ☒ Iced ☐ Refrigerated ☐ Fridge temp ___°C ☐ Freezer temp ___°C

APPENDIX D

Engineering a Sustainable Future

October 1, 2012
Nobis File No. 80074
DTN: MA-3675-2012-F

Mr. Jim Byrne
EPA-New England Region I
5 Post Office Square
Suite 100, Mailcode OSRR07-4
Boston, MA 02109-3912

Re: Contract No.: EP-S1-06-03
Task Order No. 0074-SI-BZ-0100
Case No. 0104S, Sample Delivery Group (SDG) No. D05021, Lab Nos.: L1215852 and L1215938
Alpha Analytical, Westborough, Massachusetts
Chromium Process Storage Site
Shelton, Connecticut

Tier I Modified Organic and Inorganic Data Validation

VOCs, PAHs, PCBs, PP Metals, ETPH:
17/Soils/TG-SW-1, TG-SW-2, TG-SW-3, TG-SW-4, TG-B-1, TG-B-2, B-1 0-2, B-1 13-16, B-2 0-2, B-2 9-11, B-3 0-2, B-3 14-16, B-6 0-2, B-6 9-12, B-5 0-2, B-5 6-9, B-4 16-19
Field Duplicate: B-6 0-2/DUP-1

Dear Mr. Byrne:

Nobis Engineering, Inc. performed a Tier I Modified data validation in accordance with the Region I, EPA-NE Data Validation Functional Guidelines for Evaluating Environmental Analyses, December 1996 Criteria, on the organic and inorganic analytical data for 17 soil samples collected by Nobis Engineering, Inc. at the Chromium Process Storage Site located in Shelton, Connecticut. The samples were analyzed for volatile organic compounds (VOCs) by SW-846 Method 8260C, for polycyclic aromatic hydrocarbons (PAHs) by SW-846 Method 8270D, for polychlorinated biphenyls (PCBs) by SW-846 Method 8082, extractable petroleum hydrocarbons (ETPH) by Connecticut Department of Energy and Environmental Protection (CT DEEP) method (CT ETPH) and for priority pollutant (PP) metals plus barium and vanadium by SW-846 Method 6010C/7471B and per DAS Technical Specification DAS-RAC2-068 (Attachment 1). A Tier I modified data validation was deemed sufficient at this time.

Nobis Engineering, Inc.
585 Middlesex Street
Lowell, MA 01851
T (508) 683-0891

The data were evaluated based on the following parameters:

- Overall Evaluation of Data and Potential Usability Issues
- * Data Completeness
- * Preservation and Technical Holding Times
- * Blanks
- Surrogate Compounds
- * Internal Standards
- * Matrix Spikes
- * Laboratory Duplicates
- Field Duplicates
- * Laboratory Control Samples
- Reported Quantitation Limits

* All criteria were met for this parameter.
NA – Not applicable.

Overall Evaluation of Data and Potential Usability Issues

Analytical results from soil and groundwater samples will be used to characterize subsurface conditions at the Site and as the basis for remedial recommendations and cost estimates. Soil and groundwater samples collected during the course of the TBA will be compared to applicable Connecticut Remediation Standard Regulation (RSR) criteria.

Analytes which exceed one or more RSRs are highlighted in the attached data summary table. PAHs were over RSRs in TG-SW-3 (benzo(a)fluoranthene and phenanthrene), B-1 0-2 (benzo(a)anthracene, benzo(a)pyrene, and benzo(a)fluoranthene), and B-6 0-2 [and DUP-1] (for several PAHs). Lead was over the action limits in sample B-1 0-2 and arsenic was over the action limits for B-1 13-16. Samples B-1 0-2 (chloroform, PCE, and TCE), B-1 13-16 (chloroform, PCE, and TCE), B-2 0-2 (PCE and TCE), B-3 0-2 (PCE and TCE), and B-5 0-2 (benzene, PCE, and TCE) had VOCs exceed RSRs. ETPH exceeded RSRs in sample B-2 0-2.

Data Completeness:

The data packages were complete. All analyses for all submitted samples were completed. There were a few extra VOC compounds reported that were not in the FTWP/QAPPA. These are: 1,1,2-Trichloro-1,2,2-trifluoroethane, acrylonitrile, trans-1,4-dichloro-2-butene, and total xylenes. There were a few VOCs that were requested in the FTWP/QAPPA that were not included in the laboratory reported VOC analyte list. These are: bromochloromethane, diethyl ether, and 1,4-dioxane. Only 1,4-dioxane has RSRs. Aroclor 1262 and 1268 were extra PCB analytes that were reported by the laboratory.

Data presented in the Summary Tables include qualifiers assigned by the laboratory. Qualifications for these parameters were not assessed under the Tier I modified validation.

Surrogates:

ETPH:

The surrogate compound, o-terphenyl, was recovered below the lower control limit in sample TG-SW-2 (43% versus LCL 50%) indicating potential low bias. A matrix spike was performed on this sample with acceptable surrogate recovery. A laboratory duplicate was also performed on

this sample with acceptable surrogate recovery and with similar target analyte results. Therefore, no action was taken.

The surrogate, o-terphenyl, was recovered below the lower control limit in the MSD of sample B-6 0-2 (48% versus LCL 50%) but was in control in the sample and MS analysis; therefore, no action was taken.

Matrix Spikes:

VOCs:

Acetone, carbon disulfide, and tetrahydrofuran were not recovered (0% recovery) in the MS/MSD of sample B-4 16-19. Sample results for these analytes should be considered biased low (J/UJ).

Metals:

Antimony (56 and 59% in MS/MSD) and Zinc (73% in MS) were recovered below the lower control limit of 75% in sample B-4 16-19. Sample results for these analytes should be considered biased low (J/UJ).

Field Duplicate:

A field duplicate was collected at B-6 0-2 and identified as DUP-1. It was analyzed for all parameters. The RPDs of positive detected results were evaluated and any RPDs greater than 50% are reported as outliers. These include: arsenic and chromium. The results for these analytes in sample B-6 0-2 and DUP-1 should be considered estimated.

Reporting Limits:

VOCs:

Samples B-1 0-2, B-1 13-16, B-2 0-2, B-3 0-2, and B-5 0-2 were analyzed in the medium level technique due to high concentrations of target analytes. Sample B-1 0-2 was analyzed at a dilution factor of 2 due to high concentrations of target analytes. Reporting limits were raised accordingly. As a result of these elevated reporting limits, some analytes did not achieve the RSRs.

PAHs:

Samples B-6 0-2, B-5 0-2, and DUP-1 were analyzed with 5-fold dilutions due to sample matrix.

ETPH:

Samples B-1 0-2 (2x), B-2 0-2 (10x), B-6 0-2 (5x) and DUP-1 (5x) were analyzed with dilutions due to high target analyte concentration.

Metals:

Sample B-1 13-16 has elevated reporting limits for all analytes except for Mercury due to the dilution (2x) required for sample matrix.

Please contact me at (978) 703-6021 or gderuzzo@nobiseng.com should you have any questions or comments regarding this information.

Sincerely,

NOBIS ENGINEERING, INC.

Gail DeRuzzo
Lead Chemist

Tables: Data Summary Tables

Attachment 1: DAS-RAC2-068 Technical Specification, Analysis of Aqueous and Soil Samples for VOCs, VPH, EPH, PCBs, PP Metals Using CT RCP Requirements.

Enclosures: Data Review Checklist
Field Sampling Notes

DATA SUMMARY TABLE
Chromium Process Storage Site
Shelton, CT
Alpha Analytical

LOCATION							TG-SW-1		TG-SW-2		TG-SW-3		TG-SW-4	
SAMPLING DATE							9/5/2012		9/5/2012		9/5/2012		9/5/2012	
LAB SAMPLE ID							L1215852-01		L1215852-02		L1215852-03		L1215852-04	
SAMPLE TYPE														
SAMPLE DEPTH (ft.)														
	CasNum	CT-GAS	CT-GBS	CT-ICS	CT-RCS	Units		Qual		Qual		Qual		Qual
CT RCP PAHs - Westborough Lab														
Acenaphthene	83-32-9					mg/kg	0.26	U	0.27	U	0.34	U	0.27	U
Fluoranthene	206-44-0	5.6	56	2500	1000	mg/kg	0.2	U	0.2	U	4.4		0.21	U
Naphthalene	91-20-3	5.6	56	2500	1000	mg/kg	0.33	U	0.33	U	0.43	U	0.34	U
Benzo(a)anthracene	56-55-3	1	1	7.8	1	mg/kg	0.2	U	0.2	U	0.49		0.21	U
Benzo(a)pyrene	50-32-8	1	1	1	1	mg/kg	0.26	U	0.27	U	0.75		0.27	U
Benzo(b)fluoranthene	205-99-2	1	1	7.8	1	mg/kg	0.2	U	0.2	U	1.8		0.21	U
Benzo(k)fluoranthene	207-08-9	1	1	78	8.4	mg/kg	0.2	U	0.2	U	0.67		0.21	U
Chrysene	218-01-9					mg/kg	0.2	U	0.2	U	1.7		0.21	U
Acenaphthylene	208-96-8	8.4	84	2500	1000	mg/kg	0.26	U	0.27	U	0.47		0.27	U
Anthracene	120-12-7	40	400	2500	1000	mg/kg	0.2	U	0.2	U	0.26	U	0.21	U
Benzo(ghi)perylene	191-24-2					mg/kg	0.26	U	0.27	U	0.76		0.27	U
Fluorene	86-73-7	5.6	56	2500	1000	mg/kg	0.33	U	0.33	U	0.43	U	0.34	U
Phenanthrene	85-01-8	4	40	2500	1000	mg/kg	0.2	U	0.2	U	4.5		0.21	U
Dibenzo(a,h)anthracene	53-70-3					mg/kg	0.2	U	0.2	U	0.26	U	0.21	U
Indeno(1,2,3-cd)Pyrene	193-39-5					mg/kg	0.26	U	0.27	U	0.86		0.27	U
Pyrene	129-00-0	4	40	2500	1000	mg/kg	0.2	U	0.2	U	3.5		0.21	U
2-Methylnaphthalene	91-57-6					mg/kg	0.39	U	0.4	U	0.52	U	0.41	U
CT RCP Polychlorinated Biphenyls - Westborough Lab														
Aroclor 1016	12674-11-2			10	1	mg/kg	0.0326	U	0.0331	U	0.0425	U	0.0335	U
Aroclor 1221	11104-28-2			10	1	mg/kg	0.0326	U	0.0331	U	0.0425	U	0.0335	U
Aroclor 1232	11141-16-5			10	1	mg/kg	0.0326	U	0.0331	U	0.0425	U	0.0335	U
Aroclor 1242	53469-21-9			10	1	mg/kg	0.0326	U	0.0331	U	0.0425	U	0.0335	U
Aroclor 1248	12672-29-6			10	1	mg/kg	0.0326	U	0.0331	U	0.0425	U	0.0335	U
Aroclor 1254	11097-69-1			10	1	mg/kg	0.0326	U	0.0331	U	0.0425	U	0.0335	U
Aroclor 1260	11096-82-5			10	1	mg/kg	0.0326	U	0.0331	U	0.0425	U	0.0335	U
Aroclor 1262	37324-23-5			10	1	mg/kg	0.0326	U	0.0331	U	0.0425	U	0.0335	U
Aroclor 1268	11100-14-4			10	1	mg/kg	0.0326	U	0.0331	U	0.0425	U	0.0335	U
CT RCP Total Metals - Westborough Lab														
Antimony, Total	7440-36-0			8200	27	mg/kg	2	U	2.3		2.6	U	2	U
Arsenic, Total	7440-38-2			10	10	mg/kg	2.2		7.5		6		5.3	
Barium, Total	7440-39-3			140000	4700	mg/kg	34		22		40		26	
Beryllium, Total	7440-41-7			2	2	mg/kg	0.25		0.21		0.26		0.22	
Cadmium, Total	7440-43-9			1000	34	mg/kg	0.39	U	0.4	U	0.51	U	0.41	U
Chromium, Total	7440-47-3					mg/kg	11		8		18		16	
Copper, Total	7440-50-8			76000	2500	mg/kg	14		14		41		26	
Lead, Total	7439-92-1			1000	500	mg/kg	3.8		6		92		7.3	
Mercury, Total	7439-97-6			610	20	mg/kg	0.07	U	0.08	U	0.11	U	0.08	U
Nickel, Total	7440-02-0			7500	1400	mg/kg	9.6		12		21		32	
Selenium, Total	7782-49-2			10000	340	mg/kg	2	U	2	U	2.6	U	2	U
Silver, Total	7440-22-4			10000	340	mg/kg	0.39	U	0.4	U	0.51	U	0.41	U
Thallium, Total	7440-28-0			160	5.4	mg/kg	2	U	2	U	2.6	U	2	U
Vanadium, Total	7440-62-2			14000	470	mg/kg	20		14		21		16	
Zinc, Total	7440-66-6			610000	20000	mg/kg	26		21		72		54	

DATA SUMMARY TABLE
Chromium Process Storage Site
Shelton, CT
Alpha Analytical

LOCATION							TG-SW-1		TG-SW-2		TG-SW-3		TG-SW-4	
SAMPLING DATE							9/5/2012		9/5/2012		9/5/2012		9/5/2012	
LAB SAMPLE ID							L1215852-01		L1215852-02		L1215852-03		L1215852-04	
SAMPLE TYPE														
SAMPLE DEPTH (ft.)														
	CasNum	CT-GAS	CT-GBS	CT-ICS	CT-RCS	Units		Qual		Qual		Qual		Qual
CT RCP Volatile Organics by 5035 - Westborough Lab														
Methylene chloride	75-09-2	0.1	1	760	82	mg/kg	0.0065	U	0.0073	U	0.0091	U	0.0075	U
1,1-Dichloroethane	75-34-3	1.4	14	1000	500	mg/kg	0.00098	U	0.0011	U	0.0014	U	0.0011	U
Chloroform	67-66-3	0.12	1.2	940	100	mg/kg	0.00098	U	0.0011	U	0.0014	U	0.0011	U
Carbon tetrachloride	56-23-5	0.1	1	44	4.7	mg/kg	0.00065	U	0.00073	U	0.00091	U	0.00075	U
1,2-Dichloropropane	78-87-5	0.1	1	84	9	mg/kg	0.0023	U	0.0026	U	0.0032	U	0.0026	U
Dibromochloromethane	124-48-1	0.01	0.1	68	7.3	mg/kg	0.00065	U	0.00073	U	0.00091	U	0.00075	U
1,1,2-Trichloroethane	79-00-5	0.1	1	100	11	mg/kg	0.00098	U	0.0011	U	0.0014	U	0.0011	U
Tetrachloroethene	127-18-4	0.1	1	110	12	mg/kg	0.00065	U	0.00073	U	0.00091	U	0.00075	U
Chlorobenzene	108-90-7	2	20	1000	500	mg/kg	0.00065	U	0.00073	U	0.00091	U	0.00075	U
Trichlorofluoromethane	75-69-4					mg/kg	0.0033	U	0.0036	U	0.0046	U	0.0037	U
1,2-Dichloroethane	107-06-2	0.02	0.2	63	6.7	mg/kg	0.00065	U	0.00073	U	0.00091	U	0.00075	U
1,1,1-Trichloroethane	71-55-6	4	40	1000	500	mg/kg	0.00065	U	0.00073	U	0.00091	U	0.00075	U
Bromodichloromethane	75-27-4					mg/kg	0.00065	U	0.00073	U	0.00091	U	0.00075	U
trans-1,3-Dichloropropene	10061-02-6	0.01	0.1	32	3.4	mg/kg	0.00065	U	0.00073	U	0.00091	U	0.00075	U
cis-1,3-Dichloropropene	10061-01-5	0.01	0.1	32	3.4	mg/kg	0.00065	U	0.00073	U	0.00091	U	0.00075	U
1,1-Dichloropropene	563-58-6					mg/kg	0.0033	U	0.0036	U	0.0046	U	0.0037	U
Bromoform	75-25-2	0.08	0.8	720	78	mg/kg	0.0026	U	0.0029	U	0.0036	U	0.003	U
1,1,2,2-Tetrachloroethane	79-34-5	0.01	0.1	29	3.1	mg/kg	0.00065	U	0.00073	U	0.00091	U	0.00075	U
Benzene	71-43-2	0.02	0.2	200	21	mg/kg	0.00065	U	0.00073	U	0.00091	U	0.00075	U
Toluene	108-88-3	20	67	1000	500	mg/kg	0.00098	U	0.0011	U	0.0014	U	0.0011	U
Ethylbenzene	100-41-4	10.1	10.1	1000	500	mg/kg	0.00065	U	0.00073	U	0.00091	U	0.00075	U
Chloromethane	74-87-3					mg/kg	0.0033	U	0.0036	U	0.0046	U	0.0037	U
Bromomethane	74-83-9					mg/kg	0.0013	U	0.0015	U	0.0018	U	0.0015	U
Vinyl chloride	75-01-4	0.04	0.4	3	0.32	mg/kg	0.0013	U	0.0015	U	0.0018	U	0.0015	U
Chloroethane	75-00-3					mg/kg	0.0013	U	0.0015	U	0.0018	U	0.0015	U
1,1-Dichloroethene	75-35-4	0.14	1.4	9.5	1	mg/kg	0.00065	U	0.00073	U	0.00091	U	0.00075	U
trans-1,2-Dichloroethene	156-60-5	2	20	1000	500	mg/kg	0.00098	U	0.0011	U	0.0014	U	0.0011	U
Trichloroethene	79-01-6	0.1	1	520	56	mg/kg	0.00065	U	0.00073	U	0.00091	U	0.00075	U
1,2-Dichlorobenzene	95-50-1	3.1	3.1	1000	500	mg/kg	0.0033	U	0.0036	U	0.0046	U	0.0037	U
1,3-Dichlorobenzene	541-73-1	12	120	1000	500	mg/kg	0.0033	U	0.0036	U	0.0046	U	0.0037	U
1,4-Dichlorobenzene	106-46-7	1.5	15	240	26	mg/kg	0.0033	U	0.0036	U	0.0046	U	0.0037	U
Methyl tert butyl ether	1634-04-4	2	20	1000	500	mg/kg	0.0013	U	0.0015	U	0.0018	U	0.0015	U
p/m-Xylene	179601-23-1	19.5	19.5	1000	500	mg/kg	0.0013	U	0.0015	U	0.0018	U	0.0015	U
o-Xylene	95-47-6	19.5	19.5	1000	500	mg/kg	0.0013	U	0.0015	U	0.0018	U	0.0015	U
XYLENE (TOTAL)	1330-20-7	19.5	19.5	1000	500	mg/kg	0.0013	U	0.0015	U	0.0018	U	0.0015	U
cis-1,2-Dichloroethene	156-59-2	1.4	14	1000	500	mg/kg	0.00065	U	0.00073	U	0.00091	U	0.00075	U
Dibromomethane	74-95-3					mg/kg	0.0065	U	0.0073	U	0.0091	U	0.0075	U
1,2,3-Trichloropropane	96-18-4					mg/kg	0.0065	U	0.0073	U	0.0091	U	0.0075	U
Styrene	100-42-5	2	20	1000	500	mg/kg	0.0013	U	0.0015	U	0.0018	U	0.0015	U
Dichlorodifluoromethane	75-71-8					mg/kg	0.0065	U	0.0073	U	0.0091	U	0.0075	U
Acetone	67-64-1	14	140	1000	500	mg/kg	0.024	U	0.026	U	0.033	U	0.027	U
Carbon disulfide	75-15-0					mg/kg	0.033	U	0.036	U	0.046	U	0.037	U
2-Butanone	78-93-3	8	80	1000	500	mg/kg	0.0065	U	0.0073	U	0.0091	U	0.0075	U

DATA SUMMARY TABLE
Chromium Process Storage Site
Shelton, CT
Alpha Analytical

LOCATION							TG-SW-1		TG-SW-2		TG-SW-3		TG-SW-4	
SAMPLING DATE							9/5/2012		9/5/2012		9/5/2012		9/5/2012	
LAB SAMPLE ID							L1215852-01		L1215852-02		L1215852-03		L1215852-04	
SAMPLE TYPE														
SAMPLE DEPTH (ft.)														
	CasNum	CT-GAS	CT-GBS	CT-ICS	CT-RCS	Units		Qual		Qual		Qual		Qual
4-Methyl-2-pentanone	108-10-1	7	14	1000	500	mg/kg	0.0065	U	0.0073	U	0.0091	U	0.0075	U
2-Hexanone	591-78-6					mg/kg	0.0065	U	0.0073	U	0.0091	U	0.0075	U
Acrylonitrile	107-13-1	0.01	0.1	11	1.1	mg/kg	0.0026	U	0.0029	U	0.0036	U	0.003	U
Tetrahydrofuran	109-99-9					mg/kg	0.013	U	0.015	U	0.018	U	0.015	U
2,2-Dichloropropane	594-20-7					mg/kg	0.0033	U	0.0036	U	0.0046	U	0.0037	U
1,2-Dibromoethane	106-93-4	0.01	0.1	0.067	0.007	mg/kg	0.0026	U	0.0029	U	0.0036	U	0.003	U
1,3-Dichloropropane	142-28-9					mg/kg	0.0033	U	0.0036	U	0.0046	U	0.0037	U
1,1,1,2-Tetrachloroethane	630-20-6	0.02	0.2	220	24	mg/kg	0.00065	U	0.00073	U	0.00091	U	0.00075	U
Bromobenzene	108-86-1					mg/kg	0.0033	U	0.0036	U	0.0046	U	0.0037	U
n-Butylbenzene	104-51-8					mg/kg	0.00065	U	0.00073	U	0.00091	U	0.00075	U
sec-Butylbenzene	135-98-8					mg/kg	0.00065	U	0.00073	U	0.00091	U	0.00075	U
tert-Butylbenzene	98-06-6					mg/kg	0.0033	U	0.0036	U	0.0046	U	0.0037	U
o-Chlorotoluene	95-49-8					mg/kg	0.0033	U	0.0036	U	0.0046	U	0.0037	U
p-Chlorotoluene	106-43-4					mg/kg	0.0033	U	0.0036	U	0.0046	U	0.0037	U
1,2-Dibromo-3-chloropropane	96-12-8					mg/kg	0.0033	U	0.0036	U	0.0046	U	0.0037	U
Hexachlorobutadiene	87-68-3					mg/kg	0.0033	U	0.0036	U	0.0046	U	0.0037	U
Isopropylbenzene	98-82-8					mg/kg	0.00065	U	0.00073	U	0.00091	U	0.00075	U
p-Isopropyltoluene	99-87-6					mg/kg	0.00065	U	0.00073	U	0.00091	U	0.00075	U
Naphthalene	91-20-3	5.6	56	2500	1000	mg/kg	0.0033	U	0.0036	U	0.0046	U	0.0037	U
n-Propylbenzene	103-65-1					mg/kg	0.00065	U	0.00073	U	0.00091	U	0.00075	U
1,2,3-Trichlorobenzene	87-61-6					mg/kg	0.0033	U	0.0036	U	0.0046	U	0.0037	U
1,2,4-Trichlorobenzene	120-82-1					mg/kg	0.0033	U	0.0036	U	0.0046	U	0.0037	U
1,3,5-Trimethylbenzene	108-67-8					mg/kg	0.0033	U	0.0036	U	0.0046	U	0.0037	U
1,2,4-Trimethylbenzene	95-63-6					mg/kg	0.0033	U	0.0036	U	0.0046	U	0.0037	U
trans-1,4-Dichloro-2-butene	110-57-6					mg/kg	0.0033	U	0.0036	U	0.0046	U	0.0037	U
1,1,2-Trichloro-1,2,2-Trifluoroetha	76-13-1					mg/kg	0.0026	U	0.0029	U	0.0036	U	0.003	U
Extractable Petroleum Hydrocarbons - Westborough Lab														
ETPH-CT	ETPH	500	2500	2500	500	mg/kg	13	U	14	U	53		23	
General Chemistry - Westborough Lab														
Solids, Total	NONE					%	98		95		74		94	

Exceeds action limit
RL exceeds action limit

DATA SUMMARY TABLE
Chromium Process Storage Site
Shelton, CT
Alpha Analytical

LOCATION							TG-B-1		TG-B-2		B-1 0-2		B-1 13-16	
SAMPLING DATE							9/5/2012		9/5/2012		9/6/2012		9/6/2012	
LAB SAMPLE ID							L1215852-05		L1215852-06		L1215852-07		L1215852-08	
SAMPLE TYPE														
SAMPLE DEPTH (ft.)														
	CasNum	CT-GAS	CT-GBS	CT-ICS	CT-RCS	Units		Qual		Qual		Qual		Qual
CT RCP PAHs - Westborough Lab														
Acenaphthene	83-32-9					mg/kg	0.35	U	0.27	U	0.28	U	0.3	U
Fluoranthene	206-44-0	5.6	56	2500	1000	mg/kg	0.26	U	0.2	U	2.9		0.22	U
Naphthalene	91-20-3	5.6	56	2500	1000	mg/kg	0.43	U	0.34	U	0.71		0.37	U
Benzo(a)anthracene	56-55-3	1	1	7.8	1	mg/kg	0.26	U	0.2	U	1.2		0.22	U
Benzo(a)pyrene	50-32-8	1	1	1	1	mg/kg	0.35	U	0.27	U	1.2		0.3	U
Benzo(b)fluoranthene	205-99-2	1	1	7.8	1	mg/kg	0.26	U	0.2	U	1.9		0.22	U
Benzo(k)fluoranthene	207-08-9	1	1	78	8.4	mg/kg	0.26	U	0.2	U	0.64		0.22	U
Chrysene	218-01-9					mg/kg	0.26	U	0.2	U	1.6		0.22	U
Acenaphthylene	208-96-8	8.4	84	2500	1000	mg/kg	0.35	U	0.27	U	0.73		0.3	U
Anthracene	120-12-7	40	400	2500	1000	mg/kg	0.26	U	0.2	U	0.44		0.22	U
Benzo(ghi)perylene	191-24-2					mg/kg	0.35	U	0.27	U	0.88		0.3	U
Fluorene	86-73-7	5.6	56	2500	1000	mg/kg	0.43	U	0.34	U	0.35	U	0.37	U
Phenanthrene	85-01-8	4	40	2500	1000	mg/kg	0.26	U	0.2	U	1.5		0.22	U
Dibenzo(a,h)anthracene	53-70-3					mg/kg	0.26	U	0.2	U	0.22		0.22	U
Indeno(1,2,3-cd)Pyrene	193-39-5					mg/kg	0.35	U	0.27	U	0.96		0.3	U
Pyrene	129-00-0	4	40	2500	1000	mg/kg	0.26	U	0.2	U	2.7		0.22	U
2-Methylnaphthalene	91-57-6					mg/kg	0.52	U	0.41	U	0.98		0.44	U
CT RCP Polychlorinated Biphenyls - Westborough Lab														
Aroclor 1016	12674-11-2			10	1	mg/kg	0.0417	U	0.0337	U	0.035	U	0.0367	U
Aroclor 1221	11104-28-2			10	1	mg/kg	0.0417	U	0.0337	U	0.035	U	0.0367	U
Aroclor 1232	11141-16-5			10	1	mg/kg	0.0417	U	0.0337	U	0.035	U	0.0367	U
Aroclor 1242	53469-21-9			10	1	mg/kg	0.0417	U	0.0337	U	0.035	U	0.0367	U
Aroclor 1248	12672-29-6			10	1	mg/kg	0.0417	U	0.0337	U	0.035	U	0.0367	U
Aroclor 1254	11097-69-1			10	1	mg/kg	0.0417	U	0.0337	U	0.035	U	0.0367	U
Aroclor 1260	11096-82-5			10	1	mg/kg	0.0417	U	0.0337	U	0.035	U	0.0367	U
Aroclor 1262	37324-23-5			10	1	mg/kg	0.0417	U	0.0337	U	0.035	U	0.0367	U
Aroclor 1268	11100-14-4			10	1	mg/kg	0.0417	U	0.0337	U	0.035	U	0.0367	U
CT RCP Total Metals - Westborough Lab														
Antimony, Total	7440-36-0			8200	27	mg/kg	3		2	U	23		7.2	
Arsenic, Total	7440-38-2			10	10	mg/kg	8.1		5.5		7		12	
Barium, Total	7440-39-3			140000	4700	mg/kg	33		30		200		69	
Beryllium, Total	7440-41-7			2	2	mg/kg	0.25	U	0.21		1		0.44	U
Cadmium, Total	7440-43-9			1000	34	mg/kg	0.51	U	0.4	U	2.2		0.88	U
Chromium, Total	7440-47-3					mg/kg	19		15		93		41	
Copper, Total	7440-50-8			76000	2500	mg/kg	58		28		360		220	
Lead, Total	7439-92-1			1000	500	mg/kg	6.8		6.3		550		83	
Mercury, Total	7439-97-6			610	20	mg/kg	0.09	U	0.08	U	0.22		0.07	U
Nickel, Total	7440-02-0			7500	1400	mg/kg	50		29		54		24	
Selenium, Total	7782-49-2			10000	340	mg/kg	2.5	U	2	U	2.1	U	4.4	U
Silver, Total	7440-22-4			10000	340	mg/kg	0.51	U	0.4	U	8.2		0.88	U
Thallium, Total	7440-28-0			160	5.4	mg/kg	2.5	U	2	U	2.1	U	4.4	U
Vanadium, Total	7440-62-2			14000	470	mg/kg	21		16		64		36	
Zinc, Total	7440-66-6			610000	20000	mg/kg	33		48		280		88	

DATA SUMMARY TABLE
Chromium Process Storage Site
Shelton, CT
Alpha Analytical

LOCATION							TG-B-1		TG-B-2		B-1 0-2		B-1 13-16	
SAMPLING DATE							9/5/2012		9/5/2012		9/6/2012		9/6/2012	
LAB SAMPLE ID							L1215852-05		L1215852-06		L1215852-07		L1215852-08	
SAMPLE TYPE														
SAMPLE DEPTH (ft.)														
	CasNum	CT-GAS	CT-GBS	CT-ICS	CT-RCS	Units		Qual		Qual		Qual		Qual
CT RCP Volatile Organics by 5035 - Westborough Lab														
Methylene chloride	75-09-2	0.1	1	760	82	mg/kg	0.0088	U	0.0072	U	1.9	U	1.1	U
1,1-Dichloroethane	75-34-3	1.4	14	1000	500	mg/kg	0.0013	U	0.0011	U	0.28	U	0.42	
Chloroform	67-66-3	0.12	1.2	940	100	mg/kg	0.0013	U	0.0011	U	16		2.7	
Carbon tetrachloride	56-23-5	0.1	1	44	4.7	mg/kg	0.00088	U	0.00072	U	0.19	U	0.11	U
1,2-Dichloropropane	78-87-5	0.1	1	84	9	mg/kg	0.0031	U	0.0025	U	0.65	U	0.37	U
Dibromochloromethane	124-48-1	0.01	0.1	68	7.3	mg/kg	0.00088	U	0.00072	U	0.19	U	0.11	U
1,1,2-Trichloroethane	79-00-5	0.1	1	100	11	mg/kg	0.0013	U	0.0011	U	0.28	U	0.16	U
Tetrachloroethene	127-18-4	0.1	1	110	12	mg/kg	0.00088	U	0.00072	U	1.4		1	
Chlorobenzene	108-90-7	2	20	1000	500	mg/kg	0.00088	U	0.00072	U	0.19	U	0.11	U
Trichlorofluoromethane	75-69-4					mg/kg	0.0044	U	0.0036	U	0.94	U	0.54	U
1,2-Dichloroethane	107-06-2	0.02	0.2	63	6.7	mg/kg	0.00088	U	0.00072	U	0.19	U	0.11	U
1,1,1-Trichloroethane	71-55-6	4	40	1000	500	mg/kg	0.00088	U	0.00072	U	0.31		0.88	
Bromodichloromethane	75-27-4					mg/kg	0.00088	U	0.00072	U	0.19	U	0.11	U
trans-1,3-Dichloropropene	10061-02-6	0.01	0.1	32	3.4	mg/kg	0.00088	U	0.00072	U	0.19	U	0.11	U
cis-1,3-Dichloropropene	10061-01-5	0.01	0.1	32	3.4	mg/kg	0.00088	U	0.00072	U	0.19	U	0.11	U
1,1-Dichloropropene	563-58-6					mg/kg	0.0044	U	0.0036	U	0.94	U	0.54	U
Bromoform	75-25-2	0.08	0.8	720	78	mg/kg	0.0035	U	0.0029	U	0.75	U	0.43	U
1,1,2,2-Tetrachloroethane	79-34-5	0.01	0.1	29	3.1	mg/kg	0.00088	U	0.00072	U	0.19	U	0.11	U
Benzene	71-43-2	0.02	0.2	200	21	mg/kg	0.00088	U	0.00072	U	0.19	U	0.11	U
Toluene	108-88-3	20	67	1000	500	mg/kg	0.0013	U	0.0011	U	0.28	U	0.16	U
Ethylbenzene	100-41-4	10.1	10.1	1000	500	mg/kg	0.00088	U	0.00072	U	0.19	U	0.11	U
Chloromethane	74-87-3					mg/kg	0.0044	U	0.0036	U	0.94	U	0.54	U
Bromomethane	74-83-9					mg/kg	0.0018	U	0.0014	U	0.37	U	0.21	U
Vinyl chloride	75-01-4	0.04	0.4	3	0.32	mg/kg	0.0018	U	0.0014	U	0.37	U	0.21	U
Chloroethane	75-00-3					mg/kg	0.0018	U	0.0014	U	0.37	U	0.21	U
1,1-Dichloroethene	75-35-4	0.14	1.4	9.5	1	mg/kg	0.00088	U	0.00072	U	0.19	U	0.11	U
trans-1,2-Dichloroethene	156-60-5	2	20	1000	500	mg/kg	0.0013	U	0.0011	U	0.28	U	0.16	U
Trichloroethene	79-01-6	0.1	1	520	56	mg/kg	0.00088	U	0.00072	U	25		16	
1,2-Dichlorobenzene	95-50-1	3.1	3.1	1000	500	mg/kg	0.0044	U	0.0036	U	0.94	U	0.54	U
1,3-Dichlorobenzene	541-73-1	12	120	1000	500	mg/kg	0.0044	U	0.0036	U	0.94	U	0.54	U
1,4-Dichlorobenzene	106-46-7	1.5	15	240	26	mg/kg	0.0044	U	0.0036	U	0.94	U	0.54	U
Methyl tert butyl ether	1634-04-4	2	20	1000	500	mg/kg	0.0018	U	0.0014	U	0.37	U	0.21	U
p/m-Xylene	179601-23-1	19.5	19.5	1000	500	mg/kg	0.0018	U	0.0014	U	0.37	U	0.21	U
o-Xylene	95-47-6	19.5	19.5	1000	500	mg/kg	0.0018	U	0.0014	U	0.37	U	0.21	U
XYLENE (TOTAL)	1330-20-7	19.5	19.5	1000	500	mg/kg	0.0018	U	0.0014	U	0.37	U	0.21	U
cis-1,2-Dichloroethene	156-59-2	1.4	14	1000	500	mg/kg	0.00088	U	0.00072	U	0.19	U	0.47	
Dibromomethane	74-95-3					mg/kg	0.0088	U	0.0072	U	1.9	U	1.1	U
1,2,3-Trichloropropane	96-18-4					mg/kg	0.0088	U	0.0072	U	1.9	U	1.1	U
Styrene	100-42-5	2	20	1000	500	mg/kg	0.0018	U	0.0014	U	0.37	U	0.21	U
Dichlorodifluoromethane	75-71-8					mg/kg	0.0088	U	0.0072	U	1.9	U	1.1	U
Acetone	67-64-1	14	140	1000	500	mg/kg	0.032	U	0.026	U	6.7	U	3.8	U
Carbon disulfide	75-15-0					mg/kg	0.044	U	0.036	U	9.4	U	5.4	U
2-Butanone	78-93-3	8	80	1000	500	mg/kg	0.0088	U	0.0072	U	1.9	U	1.1	U

DATA SUMMARY TABLE
Chromium Process Storage Site
Shelton, CT
Alpha Analytical

LOCATION							TG-B-1		TG-B-2		B-1 0-2		B-1 13-16	
SAMPLING DATE							9/5/2012		9/5/2012		9/6/2012		9/6/2012	
LAB SAMPLE ID							L1215852-05		L1215852-06		L1215852-07		L1215852-08	
SAMPLE TYPE														
SAMPLE DEPTH (ft.)														
	CasNum	CT-GAS	CT-GBS	CT-ICS	CT-RCS	Units		Qual		Qual		Qual		Qual
4-Methyl-2-pentanone	108-10-1	7	14	1000	500	mg/kg	0.0088	U	0.0072	U	1.9	U	1.1	U
2-Hexanone	591-78-6					mg/kg	0.0088	U	0.0072	U	1.9	U	1.1	U
Acrylonitrile	107-13-1	0.01	0.1	11	1.1	mg/kg	0.0035	U	0.0029	U	0.75	U	0.43	U
Tetrahydrofuran	109-99-9					mg/kg	0.018	U	0.014	U	3.7	U	2.1	U
2,2-Dichloropropane	594-20-7					mg/kg	0.0044	U	0.0036	U	0.94	U	0.54	U
1,2-Dibromoethane	106-93-4	0.01	0.1	0.067	0.007	mg/kg	0.0035	U	0.0029	U	0.75	U	0.43	U
1,3-Dichloropropane	142-28-9					mg/kg	0.0044	U	0.0036	U	0.94	U	0.54	U
1,1,1,2-Tetrachloroethane	630-20-6	0.02	0.2	220	24	mg/kg	0.00088	U	0.00072	U	0.19	U	0.11	U
Bromobenzene	108-86-1					mg/kg	0.0044	U	0.0036	U	0.94	U	0.54	U
n-Butylbenzene	104-51-8					mg/kg	0.00088	U	0.00072	U	0.19	U	0.11	U
sec-Butylbenzene	135-98-8					mg/kg	0.00088	U	0.00072	U	0.19	U	0.11	U
tert-Butylbenzene	98-06-6					mg/kg	0.0044	U	0.0036	U	0.94	U	0.54	U
o-Chlorotoluene	95-49-8					mg/kg	0.0044	U	0.0036	U	0.94	U	0.54	U
p-Chlorotoluene	106-43-4					mg/kg	0.0044	U	0.0036	U	0.94	U	0.54	U
1,2-Dibromo-3-chloropropane	96-12-8					mg/kg	0.0044	U	0.0036	U	0.94	U	0.54	U
Hexachlorobutadiene	87-68-3					mg/kg	0.0044	U	0.0036	U	0.94	U	0.54	U
Isopropylbenzene	98-82-8					mg/kg	0.00088	U	0.00072	U	0.19	U	0.11	U
p-Isopropyltoluene	99-87-6					mg/kg	0.00088	U	0.00072	U	0.19	U	0.11	U
Naphthalene	91-20-3	5.6	56	2500	1000	mg/kg	0.0044	U	0.0036	U	0.94	U	0.54	U
n-Propylbenzene	103-65-1					mg/kg	0.00088	U	0.00072	U	0.19	U	0.11	U
1,2,3-Trichlorobenzene	87-61-6					mg/kg	0.0044	U	0.0036	U	0.94	U	0.54	U
1,2,4-Trichlorobenzene	120-82-1					mg/kg	0.0044	U	0.0036	U	0.94	U	0.54	U
1,3,5-Trimethylbenzene	108-67-8					mg/kg	0.0044	U	0.0036	U	0.94	U	0.54	U
1,2,4-Trimethylbenzene	95-63-6					mg/kg	0.0044	U	0.0036	U	0.94	U	0.54	U
trans-1,4-Dichloro-2-butene	110-57-6					mg/kg	0.0044	U	0.0036	U	0.94	U	0.54	U
1,1,2-Trichloro-1,2,2-Trifluoroetha	76-13-1					mg/kg	0.0035	U	0.0029	U	0.75	U	0.43	U
Extractable Petroleum Hydrocarbons - Westborough Lab														
ETPH-CT	ETPH	500	2500	2500	500	mg/kg	17	U	13		250		260	
General Chemistry - Westborough Lab														
Solids, Total	NONE					%	75		95		91		88	

Exceeds action limit
RL exceeds action limit

DATA SUMMARY TABLE
Chromium Process Storage Site
Shelton, CT
Alpha Analytical

LOCATION							B-2 0-2		B-2 9-11		B-3 0-2		B-3 14-16	
SAMPLING DATE							9/6/2012		9/6/2012		9/6/2012		9/6/2012	
LAB SAMPLE ID							L1215852-09		L1215852-10		L1215852-11		L1215852-12	
SAMPLE TYPE														
SAMPLE DEPTH (ft.)														
	CasNum	CT-GAS	CT-GBS	CT-ICS	CT-RCS	Units		Qual		Qual		Qual		Qual
CT RCP PAHs - Westborough Lab														
Acenaphthene	83-32-9					mg/kg	0.3	U	0.34	U	0.27	U	0.28	U
Fluoranthene	206-44-0	5.6	56	2500	1000	mg/kg	0.48		0.25	U	0.24		0.21	U
Naphthalene	91-20-3	5.6	56	2500	1000	mg/kg	0.37	U	0.42	U	0.34	U	0.35	U
Benzo(a)anthracene	56-55-3	1	1	7.8	1	mg/kg	0.22	U	0.25	U	0.2	U	0.21	U
Benzo(a)pyrene	50-32-8	1	1	1	1	mg/kg	0.3	U	0.34	U	0.27	U	0.28	U
Benzo(b)fluoranthene	205-99-2	1	1	7.8	1	mg/kg	0.29		0.25	U	0.2	U	0.21	U
Benzo(k)fluoranthene	207-08-9	1	1	78	8.4	mg/kg	0.22	U	0.25	U	0.2	U	0.21	U
Chrysene	218-01-9					mg/kg	0.29		0.25	U	0.2	U	0.21	U
Acenaphthylene	208-96-8	8.4	84	2500	1000	mg/kg	0.3	U	0.34	U	0.27	U	0.28	U
Anthracene	120-12-7	40	400	2500	1000	mg/kg	0.22	U	0.25	U	0.2	U	0.21	U
Benzo(ghi)perylene	191-24-2					mg/kg	0.3	U	0.34	U	0.27	U	0.28	U
Fluorene	86-73-7	5.6	56	2500	1000	mg/kg	0.37	U	0.42	U	0.34	U	0.35	U
Phenanthrene	85-01-8	4	40	2500	1000	mg/kg	0.4		0.25	U	0.2	U	0.21	U
Dibenzo(a,h)anthracene	53-70-3					mg/kg	0.22	U	0.25	U	0.2	U	0.21	U
Indeno(1,2,3-cd)Pyrene	193-39-5					mg/kg	0.3	U	0.34	U	0.27	U	0.28	U
Pyrene	129-00-0	4	40	2500	1000	mg/kg	0.44		0.25	U	0.22		0.21	U
2-Methylnaphthalene	91-57-6					mg/kg	0.44	U	0.5	U	0.41	U	0.42	U
CT RCP Polychlorinated Biphenyls - Westborough Lab														
Aroclor 1016	12674-11-2			10	1	mg/kg	0.0378	U	0.0423	U	0.0338	U	0.0362	U
Aroclor 1221	11104-28-2			10	1	mg/kg	0.0378	U	0.0423	U	0.0338	U	0.0362	U
Aroclor 1232	11141-16-5			10	1	mg/kg	0.0378	U	0.0423	U	0.0338	U	0.0362	U
Aroclor 1242	53469-21-9			10	1	mg/kg	0.0378	U	0.0423	U	0.0338	U	0.0362	U
Aroclor 1248	12672-29-6			10	1	mg/kg	0.0378	U	0.0423	U	0.0338	U	0.0362	U
Aroclor 1254	11097-69-1			10	1	mg/kg	0.0378	U	0.0423	U	0.0338	U	0.0362	U
Aroclor 1260	11096-82-5			10	1	mg/kg	0.0378	U	0.0423	U	0.0338	U	0.0362	U
Aroclor 1262	37324-23-5			10	1	mg/kg	0.0378	U	0.0423	U	0.0338	U	0.0362	U
Aroclor 1268	11100-14-4			10	1	mg/kg	0.0378	U	0.0423	U	0.0338	U	0.0362	U
CT RCP Total Metals - Westborough Lab														
Antimony, Total	7440-36-0			8200	27	mg/kg	2.8		2.5	U	2	U	2.2	U
Arsenic, Total	7440-38-2			10	10	mg/kg	5.3		3.5		4.5		3.6	
Barium, Total	7440-39-3			140000	4700	mg/kg	110		53		44		43	
Beryllium, Total	7440-41-7			2	2	mg/kg	0.5		0.4		0.27		0.3	
Cadmium, Total	7440-43-9			1000	34	mg/kg	0.56		0.49	U	0.4	U	0.43	U
Chromium, Total	7440-47-3					mg/kg	32		15		49		20	
Copper, Total	7440-50-8			76000	2500	mg/kg	490		130		83		29	
Lead, Total	7439-92-1			1000	500	mg/kg	76		9.5		32		13	
Mercury, Total	7439-97-6			610	20	mg/kg	0.08	U	0.09	U	0.08	U	0.08	U
Nickel, Total	7440-02-0			7500	1400	mg/kg	49		13		19		12	
Selenium, Total	7782-49-2			10000	340	mg/kg	2.3	U	2.5	U	2	U	2.2	U
Silver, Total	7440-22-4			10000	340	mg/kg	0.46	U	0.49	U	0.4	U	0.43	U
Thallium, Total	7440-28-0			160	5.4	mg/kg	2.3	U	2.5	U	2	U	2.2	U
Vanadium, Total	7440-62-2			14000	470	mg/kg	39		22		35		25	
Zinc, Total	7440-66-6			610000	20000	mg/kg	170		48		93		38	

DATA SUMMARY TABLE
Chromium Process Storage Site
Shelton, CT
Alpha Analytical

LOCATION							B-2 0-2		B-2 9-11		B-3 0-2		B-3 14-16	
SAMPLING DATE							9/6/2012		9/6/2012		9/6/2012		9/6/2012	
LAB SAMPLE ID							L1215852-09		L1215852-10		L1215852-11		L1215852-12	
SAMPLE TYPE														
SAMPLE DEPTH (ft.)														
	CasNum	CT-GAS	CT-GBS	CT-ICS	CT-RCS	Units		Qual		Qual		Qual		Qual
CT RCP Volatile Organics by 5035 - Westborough Lab														
Methylene chloride	75-09-2	0.1	1	760	82	mg/kg	1.1	U	0.0068	U	0.66	U	0.0073	U
1,1-Dichloroethane	75-34-3	1.4	14	1000	500	mg/kg	0.16	U	0.001	U	0.099	U	0.0011	U
Chloroform	67-66-3	0.12	1.2	940	100	mg/kg	0.16	U	0.001	U	0.099	U	0.0011	U
Carbon tetrachloride	56-23-5	0.1	1	44	4.7	mg/kg	0.11	U	0.00068	U	0.066	U	0.00073	U
1,2-Dichloropropane	78-87-5	0.1	1	84	9	mg/kg	0.38	U	0.0024	U	0.23	U	0.0026	U
Dibromochloromethane	124-48-1	0.01	0.1	68	7.3	mg/kg	0.11	U	0.00068	U	0.066	U	0.00073	U
1,1,2-Trichloroethane	79-00-5	0.1	1	100	11	mg/kg	0.16	U	0.001	U	0.099	U	0.0011	U
Tetrachloroethene	127-18-4	0.1	1	110	12	mg/kg	1.9		0.00085		0.55		0.00073	U
Chlorobenzene	108-90-7	2	20	1000	500	mg/kg	0.11	U	0.00068	U	0.066	U	0.00073	U
Trichlorofluoromethane	75-69-4					mg/kg	0.55	U	0.0034	U	0.33	U	0.0036	U
1,2-Dichloroethane	107-06-2	0.02	0.2	63	6.7	mg/kg	0.11	U	0.00068	U	0.066	U	0.00073	U
1,1,1-Trichloroethane	71-55-6	4	40	1000	500	mg/kg	0.12		0.00068	U	0.13		0.00073	U
Bromodichloromethane	75-27-4					mg/kg	0.11	U	0.00068	U	0.066	U	0.00073	U
trans-1,3-Dichloropropene	10061-02-6	0.01	0.1	32	3.4	mg/kg	0.11	U	0.00068	U	0.066	U	0.00073	U
cis-1,3-Dichloropropene	10061-01-5	0.01	0.1	32	3.4	mg/kg	0.11	U	0.00068	U	0.066	U	0.00073	U
1,1-Dichloropropene	563-58-6					mg/kg	0.55	U	0.0034	U	0.33	U	0.0036	U
Bromoform	75-25-2	0.08	0.8	720	78	mg/kg	0.44	U	0.0027	U	0.26	U	0.0029	U
1,1,2,2-Tetrachloroethane	79-34-5	0.01	0.1	29	3.1	mg/kg	0.11	U	0.00068	U	0.066	U	0.00073	U
Benzene	71-43-2	0.02	0.2	200	21	mg/kg	0.11	U	0.00068	U	0.066	U	0.00073	U
Toluene	108-88-3	20	67	1000	500	mg/kg	0.16	U	0.001	U	0.099	U	0.0011	U
Ethylbenzene	100-41-4	10.1	10.1	1000	500	mg/kg	0.11	U	0.00068	U	0.066	U	0.00073	U
Chloromethane	74-87-3					mg/kg	0.55	U	0.0034	U	0.33	U	0.0036	U
Bromomethane	74-83-9					mg/kg	0.22	U	0.0014	U	0.13	U	0.0015	U
Vinyl chloride	75-01-4	0.04	0.4	3	0.32	mg/kg	0.22	U	0.0014	U	0.13	U	0.0015	U
Chloroethane	75-00-3					mg/kg	0.22	U	0.0014	U	0.13	U	0.0015	U
1,1-Dichloroethene	75-35-4	0.14	1.4	9.5	1	mg/kg	0.11	U	0.00068	U	0.066	U	0.00073	U
trans-1,2-Dichloroethene	156-60-5	2	20	1000	500	mg/kg	0.16	U	0.001	U	0.099	U	0.0011	U
Trichloroethene	79-01-6	0.1	1	520	56	mg/kg	7.2		0.002		1.6		0.005	
1,2-Dichlorobenzene	95-50-1	3.1	3.1	1000	500	mg/kg	0.55	U	0.0034	U	0.99		0.0036	U
1,3-Dichlorobenzene	541-73-1	12	120	1000	500	mg/kg	0.55	U	0.0034	U	0.33	U	0.0036	U
1,4-Dichlorobenzene	106-46-7	1.5	15	240	26	mg/kg	0.55	U	0.0034	U	0.33	U	0.0036	U
Methyl tert butyl ether	1634-04-4	2	20	1000	500	mg/kg	0.22	U	0.0014	U	0.13	U	0.0015	U
p/m-Xylene	179601-23-1	19.5	19.5	1000	500	mg/kg	0.22	U	0.0027		0.13	U	0.0015	U
o-Xylene	95-47-6	19.5	19.5	1000	500	mg/kg	0.22	U	0.0038		0.13	U	0.0015	U
XYLENE (TOTAL)	1330-20-7	19.5	19.5	1000	500	mg/kg	0.22	U	0.0065		0.13	U	0.0015	U
cis-1,2-Dichloroethene	156-59-2	1.4	14	1000	500	mg/kg	0.23		0.00068	U	0.066	U	0.00073	U
Dibromomethane	74-95-3					mg/kg	1.1	U	0.0068	U	0.66	U	0.0073	U
1,2,3-Trichloropropane	96-18-4					mg/kg	1.1	U	0.0068	U	0.66	U	0.0073	U
Styrene	100-42-5	2	20	1000	500	mg/kg	0.22	U	0.0014	U	0.13	U	0.0015	U
Dichlorodifluoromethane	75-71-8					mg/kg	1.1	U	0.0068	U	0.66	U	0.0073	U
Acetone	67-64-1	14	140	1000	500	mg/kg	4	U	0.036		2.4	U	0.026	U
Carbon disulfide	75-15-0					mg/kg	5.5	U	0.034	U	3.3	U	0.036	U
2-Butanone	78-93-3	8	80	1000	500	mg/kg	1.1	U	0.0068	U	0.66	U	0.0073	U

DATA SUMMARY TABLE
Chromium Process Storage Site
Shelton, CT
Alpha Analytical

LOCATION							B-2 0-2		B-2 9-11		B-3 0-2		B-3 14-16	
SAMPLING DATE							9/6/2012		9/6/2012		9/6/2012		9/6/2012	
LAB SAMPLE ID							L1215852-09		L1215852-10		L1215852-11		L1215852-12	
SAMPLE TYPE														
SAMPLE DEPTH (ft.)														
	CasNum	CT-GAS	CT-GBS	CT-ICS	CT-RCS	Units		Qual		Qual		Qual		Qual
4-Methyl-2-pentanone	108-10-1	7	14	1000	500	mg/kg	1.1	U	0.0068	U	0.66	U	0.0073	U
2-Hexanone	591-78-6					mg/kg	1.1	U	0.0068	U	0.66	U	0.0073	U
Acrylonitrile	107-13-1	0.01	0.1	11	1.1	mg/kg	0.44	U	0.0027	U	0.26	U	0.0029	U
Tetrahydrofuran	109-99-9					mg/kg	2.2	U	0.014	U	1.3	U	0.015	U
2,2-Dichloropropane	594-20-7					mg/kg	0.55	U	0.0034	U	0.33	U	0.0036	U
1,2-Dibromoethane	106-93-4	0.01	0.1	0.067	0.007	mg/kg	0.44	U	0.0027	U	0.26	U	0.0029	U
1,3-Dichloropropane	142-28-9					mg/kg	0.55	U	0.0034	U	0.33	U	0.0036	U
1,1,1,2-Tetrachloroethane	630-20-6	0.02	0.2	220	24	mg/kg	0.11	U	0.00068	U	0.066	U	0.00073	U
Bromobenzene	108-86-1					mg/kg	0.55	U	0.0034	U	0.33	U	0.0036	U
n-Butylbenzene	104-51-8					mg/kg	0.11	U	0.0014		0.066	U	0.00073	U
sec-Butylbenzene	135-98-8					mg/kg	0.11	U	0.0017		0.066	U	0.00073	U
tert-Butylbenzene	98-06-6					mg/kg	0.55	U	0.0034	U	0.33	U	0.0036	U
o-Chlorotoluene	95-49-8					mg/kg	0.55	U	0.0034	U	0.33	U	0.0036	U
p-Chlorotoluene	106-43-4					mg/kg	0.55	U	0.0034	U	0.33	U	0.0036	U
1,2-Dibromo-3-chloropropane	96-12-8					mg/kg	0.55	U	0.0034	U	0.33	U	0.0036	U
Hexachlorobutadiene	87-68-3					mg/kg	0.55	U	0.0034	U	0.33	U	0.0036	U
Isopropylbenzene	98-82-8					mg/kg	0.11	U	0.0017		0.066	U	0.00073	U
p-Isopropyltoluene	99-87-6					mg/kg	0.11	U	0.0012		0.18		0.00073	U
Naphthalene	91-20-3	5.6	56	2500	1000	mg/kg	0.55	U	0.0049		0.33	U	0.0036	U
n-Propylbenzene	103-65-1					mg/kg	0.11	U	0.0014		0.066	U	0.00073	U
1,2,3-Trichlorobenzene	87-61-6					mg/kg	0.55	U	0.0034	U	0.33	U	0.0036	U
1,2,4-Trichlorobenzene	120-82-1					mg/kg	0.55	U	0.0034	U	0.33	U	0.0036	U
1,3,5-Trimethylbenzene	108-67-8					mg/kg	0.55	U	0.0045		0.33	U	0.0036	U
1,2,4-Trimethylbenzene	95-63-6					mg/kg	0.55	U	0.013		0.33	U	0.0036	U
trans-1,4-Dichloro-2-butene	110-57-6					mg/kg	0.55	U	0.0034	U	0.33	U	0.0036	U
1,1,2-Trichloro-1,2,2-Trifluoroetha	76-13-1					mg/kg	0.44	U	0.0027	U	0.26	U	0.0029	U
Extractable Petroleum Hydrocarbons - Westborough Lab														
ETPH-CT	ETPH	500	2500	2500	500	mg/kg	2500		97		88		18	
General Chemistry - Westborough Lab														
Solids, Total	NONE					%	85		77		95		90	

Exceeds action limit
RL exceeds action limit

DATA SUMMARY TABLE
Chromium Process Storage Site
Shelton, CT
Alpha Analytical

LOCATION							B6 0-2'		B6 9-12'		B5 0-2'		B5 6-9'	
SAMPLING DATE							9/6/2012		9/6/2012		9/6/2012		9/6/2012	
LAB SAMPLE ID							L1215938-01		L1215938-02		L1215938-03		L1215938-04	
SAMPLE TYPE														
SAMPLE DEPTH (ft.)														
	CasNum	CT-GAS	CT-GBS	CT-ICS	CT-RCS	Units		Qual		Qual		Qual		Qual
CT RCP PAHs - Westborough Lab														
Acenaphthene	83-32-9					mg/kg	1.4	U	0.29	U	1.4	U	0.32	U
Fluoranthene	206-44-0	5.6	56	2500	1000	mg/kg	15		0.22	U	1.5		0.24	U
Naphthalene	91-20-3	5.6	56	2500	1000	mg/kg	1.7	U	0.36	U	1.7	U	0.4	U
Benzo(a)anthracene	56-55-3	1	1	7.8	1	mg/kg	8.8		0.22	U	1	U	0.24	U
Benzo(a)pyrene	50-32-8	1	1	1	1	mg/kg	8.5		0.29	U	1.4	U	0.32	U
Benzo(b)fluoranthene	205-99-2	1	1	7.8	1	mg/kg	4.6		0.22	U	1	U	0.24	U
Benzo(k)fluoranthene	207-08-9	1	1	78	8.4	mg/kg	4.8		0.22	U	1	U	0.24	U
Chrysene	218-01-9					mg/kg	7.6		0.22	U	1	U	0.24	U
Acenaphthylene	208-96-8	8.4	84	2500	1000	mg/kg	2.5		0.29	U	1.4	U	0.32	U
Anthracene	120-12-7	40	400	2500	1000	mg/kg	3.9		0.22	U	1	U	0.24	U
Benzo(ghi)perylene	191-24-2					mg/kg	4.8		0.29	U	1.4	U	0.32	U
Fluorene	86-73-7	5.6	56	2500	1000	mg/kg	1.7	U	0.36	U	1.7	U	0.4	U
Phenanthrene	85-01-8	4	40	2500	1000	mg/kg	14		0.22	U	1	U	0.24	U
Dibenzo(a,h)anthracene	53-70-3					mg/kg	1.1		0.22	U	1	U	0.24	U
Indeno(1,2,3-cd)Pyrene	193-39-5					mg/kg	3.4		0.29	U	1.4	U	0.32	U
Pyrene	129-00-0	4	40	2500	1000	mg/kg	31		0.22	U	1.7		0.24	U
2-Methylnaphthalene	91-57-6					mg/kg	2	U	0.44	U	2.1	U	0.49	U
CT RCP Polychlorinated Biphenyls - Westborough Lab														
Aroclor 1016	12674-11-2			10	1	mg/kg	0.0342	U	0.0361	U	0.0334	U	0.0416	U
Aroclor 1221	11104-28-2			10	1	mg/kg	0.0342	U	0.0361	U	0.0334	U	0.0416	U
Aroclor 1232	11141-16-5			10	1	mg/kg	0.0342	U	0.0361	U	0.0334	U	0.0416	U
Aroclor 1242	53469-21-9			10	1	mg/kg	0.0342	U	0.0361	U	0.0334	U	0.0416	U
Aroclor 1248	12672-29-6			10	1	mg/kg	0.0342	U	0.0361	U	0.0334	U	0.0416	U
Aroclor 1254	11097-69-1			10	1	mg/kg	0.0342	U	0.0361	U	0.0334	U	0.0416	U
Aroclor 1260	11096-82-5			10	1	mg/kg	0.0342	U	0.0361	U	0.0334	U	0.0416	U
Aroclor 1262	37324-23-5			10	1	mg/kg	0.0342	U	0.0361	U	0.0334	U	0.0416	U
Aroclor 1268	11100-14-4			10	1	mg/kg	0.0342	U	0.0361	U	0.0334	U	0.0416	U
CT RCP Total Metals - Westborough Lab														
Antimony, Total	7440-36-0			8200	27	mg/kg	4.8		2.1	U	3.2		2.4	U
Arsenic, Total	7440-38-2			10	10	mg/kg	7		4.3		6.2		5.3	
Barium, Total	7440-39-3			140000	4700	mg/kg	65		36		78		44	
Beryllium, Total	7440-41-7			2	2	mg/kg	0.34		0.33		0.36		0.46	
Cadmium, Total	7440-43-9			1000	34	mg/kg	0.82		0.42	U	0.59		0.48	U
Chromium, Total	7440-47-3					mg/kg	110		38		33		31	
Copper, Total	7440-50-8			76000	2500	mg/kg	120		23		84		32	
Lead, Total	7439-92-1			1000	500	mg/kg	140		6.4		36		7.7	
Mercury, Total	7439-97-6			610	20	mg/kg	0.29		0.07	U	0.18		0.08	U
Nickel, Total	7440-02-0			7500	1400	mg/kg	88		33		33		20	
Selenium, Total	7782-49-2			10000	340	mg/kg	2	U	2.1	U	2	U	2.4	U
Silver, Total	7440-22-4			10000	340	mg/kg	0.41	U	0.42	U	0.4	U	0.48	U
Thallium, Total	7440-28-0			160	5.4	mg/kg	2	U	2.1	U	2	U	2.4	U
Vanadium, Total	7440-62-2			14000	470	mg/kg	29		22		38		26	
Zinc, Total	7440-66-6			610000	20000	mg/kg	140		37		110		47	

DATA SUMMARY TABLE
Chromium Process Storage Site
Shelton, CT
Alpha Analytical

LOCATION							B6 0-2'		B6 9-12'		B5 0-2'		B5 6-9'	
SAMPLING DATE							9/6/2012		9/6/2012		9/6/2012		9/6/2012	
LAB SAMPLE ID							L1215938-01		L1215938-02		L1215938-03		L1215938-04	
SAMPLE TYPE														
SAMPLE DEPTH (ft.)														
	CasNum	CT-GAS	CT-GBS	CT-ICS	CT-RCS	Units		Qual		Qual		Qual		Qual
CT RCP Volatile Organics by 5035 - Westborough Lab														
Methylene chloride	75-09-2	0.1	1	760	82	mg/kg	0.0076	U	0.0068	U	0.85	U	0.0078	U
1,1-Dichloroethane	75-34-3	1.4	14	1000	500	mg/kg	0.0011	U	0.001	U	0.13	U	0.0012	U
Chloroform	67-66-3	0.12	1.2	940	100	mg/kg	0.0011	U	0.001	U	0.13	U	0.0012	U
Carbon tetrachloride	56-23-5	0.1	1	44	4.7	mg/kg	0.00076	U	0.00068	U	0.085	U	0.00078	U
1,2-Dichloropropane	78-87-5	0.1	1	84	9	mg/kg	0.0026	U	0.0024	U	0.3	U	0.0027	U
Dibromochloromethane	124-48-1	0.01	0.1	68	7.3	mg/kg	0.00076	U	0.00068	U	0.085	U	0.00078	U
1,1,2-Trichloroethane	79-00-5	0.1	1	100	11	mg/kg	0.0011	U	0.001	U	0.13	U	0.0012	U
Tetrachloroethene	127-18-4	0.1	1	110	12	mg/kg	0.00076	U	0.00068	U	0.17		0.00078	U
Chlorobenzene	108-90-7	2	20	1000	500	mg/kg	0.00076	U	0.00068	U	0.085	U	0.00078	U
Trichlorofluoromethane	75-69-4					mg/kg	0.0038	U	0.0034	U	0.42	U	0.0039	U
1,2-Dichloroethane	107-06-2	0.02	0.2	63	6.7	mg/kg	0.00076	U	0.00068	U	0.085	U	0.00078	U
1,1,1-Trichloroethane	71-55-6	4	40	1000	500	mg/kg	0.00076	U	0.00068	U	0.085	U	0.00078	U
Bromodichloromethane	75-27-4					mg/kg	0.00076	U	0.00068	U	0.085	U	0.00078	U
trans-1,3-Dichloropropene	10061-02-6	0.01	0.1	32	3.4	mg/kg	0.00076	U	0.00068	U	0.085	U	0.00078	U
cis-1,3-Dichloropropene	10061-01-5	0.01	0.1	32	3.4	mg/kg	0.00076	U	0.00068	U	0.085	U	0.00078	U
1,1-Dichloropropene	563-58-6					mg/kg	0.0038	U	0.0034	U	0.42	U	0.0039	U
Bromoform	75-25-2	0.08	0.8	720	78	mg/kg	0.003	U	0.0027	U	0.34	U	0.0031	U
1,1,2,2-Tetrachloroethane	79-34-5	0.01	0.1	29	3.1	mg/kg	0.00076	U	0.00068	U	0.085	U	0.00078	U
Benzene	71-43-2	0.02	0.2	200	21	mg/kg	0.0011		0.00068	U	0.19		0.00078	U
Toluene	108-88-3	20	67	1000	500	mg/kg	0.0011	U	0.001	U	0.17		0.0012	U
Ethylbenzene	100-41-4	10.1	10.1	1000	500	mg/kg	0.00076	U	0.00068	U	0.085	U	0.00078	U
Chloromethane	74-87-3					mg/kg	0.0038	U	0.0034	U	0.42	U	0.0039	U
Bromomethane	74-83-9					mg/kg	0.0015	U	0.0014	U	0.17	U	0.0016	U
Vinyl chloride	75-01-4	0.04	0.4	3	0.32	mg/kg	0.0015	U	0.0014	U	0.17	U	0.0016	U
Chloroethane	75-00-3					mg/kg	0.0015	U	0.0014	U	0.17	U	0.0016	U
1,1-Dichloroethene	75-35-4	0.14	1.4	9.5	1	mg/kg	0.00076	U	0.00068	U	0.085	U	0.00078	U
trans-1,2-Dichloroethene	156-60-5	2	20	1000	500	mg/kg	0.0011	U	0.001	U	0.13	U	0.0012	U
Trichloroethene	79-01-6	0.1	1	520	56	mg/kg	0.0014		0.00068	U	1.6		0.0014	
1,2-Dichlorobenzene	95-50-1	3.1	3.1	1000	500	mg/kg	0.0038	U	0.0034	U	0.42	U	0.0039	U
1,3-Dichlorobenzene	541-73-1	12	120	1000	500	mg/kg	0.0038	U	0.0034	U	0.42	U	0.0039	U
1,4-Dichlorobenzene	106-46-7	1.5	15	240	26	mg/kg	0.0038	U	0.0034	U	0.42	U	0.0039	U
Methyl tert butyl ether	1634-04-4	2	20	1000	500	mg/kg	0.0015	U	0.0014	U	0.17	U	0.0016	U
p/m-Xylene	179601-23-1	19.5	19.5	1000	500	mg/kg	0.0015	U	0.0014	U	0.17	U	0.0016	U
o-Xylene	95-47-6	19.5	19.5	1000	500	mg/kg	0.0015	U	0.0014	U	0.17	U	0.0016	U
XYLENE (TOTAL)	1330-20-7	19.5	19.5	1000	500	mg/kg	0.0015	U	0.0014	U	0.17	U	0.0016	U
cis-1,2-Dichloroethene	156-59-2	1.4	14	1000	500	mg/kg	0.00076	U	0.00068	U	0.085	U	0.00078	U
Dibromomethane	74-95-3					mg/kg	0.0076	U	0.0068	U	0.85	U	0.0078	U
1,2,3-Trichloropropane	96-18-4					mg/kg	0.0076	U	0.0068	U	0.85	U	0.0078	U
Styrene	100-42-5	2	20	1000	500	mg/kg	0.0015	U	0.0014	U	0.17	U	0.0016	U
Dichlorodifluoromethane	75-71-8					mg/kg	0.0076	U	0.0068	U	0.85	U	0.0078	U
Acetone	67-64-1	14	140	1000	500	mg/kg	0.027	U	0.025	U	3	U	0.028	U
Carbon disulfide	75-15-0					mg/kg	0.038	U	0.034	U	4.2	U	0.039	U
2-Butanone	78-93-3	8	80	1000	500	mg/kg	0.0076	U	0.0068	U	0.85	U	0.0078	U

DATA SUMMARY TABLE
Chromium Process Storage Site
Shelton, CT
Alpha Analytical

LOCATION							B6 0-2'		B6 9-12'		B5 0-2'		B5 6-9'	
SAMPLING DATE							9/6/2012		9/6/2012		9/6/2012		9/6/2012	
LAB SAMPLE ID							L1215938-01		L1215938-02		L1215938-03		L1215938-04	
SAMPLE TYPE														
SAMPLE DEPTH (ft.)														
	CasNum	CT-GAS	CT-GBS	CT-ICS	CT-RCS	Units		Qual		Qual		Qual		Qual
4-Methyl-2-pentanone	108-10-1	7	14	1000	500	mg/kg	0.0076	U	0.0068	U	0.85	U	0.0078	U
2-Hexanone	591-78-6					mg/kg	0.0076	U	0.0068	U	0.85	U	0.0078	U
Acrylonitrile	107-13-1	0.01	0.1	11	1.1	mg/kg	0.003	U	0.0027	U	0.34	U	0.0031	U
Tetrahydrofuran	109-99-9					mg/kg	0.015	U	0.014	U	1.7	U	0.016	U
2,2-Dichloropropane	594-20-7					mg/kg	0.0038	U	0.0034	U	0.42	U	0.0039	U
1,2-Dibromoethane	106-93-4	0.01	0.1	0.067	0.007	mg/kg	0.003	U	0.0027	U	0.34	U	0.0031	U
1,3-Dichloropropane	142-28-9					mg/kg	0.0038	U	0.0034	U	0.42	U	0.0039	U
1,1,1,2-Tetrachloroethane	630-20-6	0.02	0.2	220	24	mg/kg	0.00076	U	0.00068	U	0.085	U	0.00078	U
Bromobenzene	108-86-1					mg/kg	0.0038	U	0.0034	U	0.42	U	0.0039	U
n-Butylbenzene	104-51-8					mg/kg	0.00076	U	0.00068	U	0.085	U	0.00078	U
sec-Butylbenzene	135-98-8					mg/kg	0.00076	U	0.00068	U	0.085	U	0.00078	U
tert-Butylbenzene	98-06-6					mg/kg	0.0038	U	0.0034	U	0.42	U	0.0039	U
o-Chlorotoluene	95-49-8					mg/kg	0.0038	U	0.0034	U	0.42	U	0.0039	U
p-Chlorotoluene	106-43-4					mg/kg	0.0038	U	0.0034	U	0.42	U	0.0039	U
1,2-Dibromo-3-chloropropane	96-12-8					mg/kg	0.0038	U	0.0034	U	0.42	U	0.0039	U
Hexachlorobutadiene	87-68-3					mg/kg	0.0038	U	0.0034	U	0.42	U	0.0039	U
Isopropylbenzene	98-82-8					mg/kg	0.00076	U	0.00068	U	0.085	U	0.00078	U
p-Isopropyltoluene	99-87-6					mg/kg	0.00087		0.00068	U	0.085	U	0.00078	U
Naphthalene	91-20-3	5.6	56	2500	1000	mg/kg	0.0038	U	0.0034	U	0.42	U	0.0039	U
n-Propylbenzene	103-65-1					mg/kg	0.00076	U	0.00068	U	0.085	U	0.00078	U
1,2,3-Trichlorobenzene	87-61-6					mg/kg	0.0038	U	0.0034	U	0.42	U	0.0039	U
1,2,4-Trichlorobenzene	120-82-1					mg/kg	0.0038	U	0.0034	U	0.42	U	0.0039	U
1,3,5-Trimethylbenzene	108-67-8					mg/kg	0.0038	U	0.0034	U	0.42	U	0.0039	U
1,2,4-Trimethylbenzene	95-63-6					mg/kg	0.0038	U	0.0034	U	0.42	U	0.0039	U
trans-1,4-Dichloro-2-butene	110-57-6					mg/kg	0.0038	U	0.0034	U	0.42	U	0.0039	U
1,1,2-Trichloro-1,2,2-Trifluoroetha	76-13-1					mg/kg	0.003	U	0.0027	U	0.34	U	0.0031	U
Extractable Petroleum Hydrocarbons - Westborough Lab														
ETPH-CT	ETPH	500	2500	2500	500	mg/kg	490		21		140		17	U
General Chemistry - Westborough Lab														
Solids, Total	NONE					%	93		90		95		78	

Exceeds action limit
RL exceeds action limit

DATA SUMMARY TABLE
Chromium Process Storage Site
Shelton, CT
Alpha Analytical

LOCATION							DUP-1		B-4 16-19'	
SAMPLING DATE							9/7/2012		9/6/2012	
LAB SAMPLE ID							L1215938-05		L1215938-06	
SAMPLE TYPE										
SAMPLE DEPTH (ft.)										
	CasNum	CT-GAS	CT-GBS	CT-ICS	CT-RCS	Units		Qual		Qual
CT RCP PAHs - Westborough Lab										
Acenaphthene	83-32-9					mg/kg	1.4	U	0.29	U
Fluoranthene	206-44-0	5.6	56	2500	1000	mg/kg	12		0.22	U
Naphthalene	91-20-3	5.6	56	2500	1000	mg/kg	1.7	U	0.37	U
Benzo(a)anthracene	56-55-3	1	1	7.8	1	mg/kg	6.7		0.22	U
Benzo(a)pyrene	50-32-8	1	1	1	1	mg/kg	6.7		0.29	U
Benzo(b)fluoranthene	205-99-2	1	1	7.8	1	mg/kg	3.6		0.22	U
Benzo(k)fluoranthene	207-08-9	1	1	78	8.4	mg/kg	4.1		0.22	U
Chrysene	218-01-9					mg/kg	5.8		0.22	U
Acenaphthylene	208-96-8	8.4	84	2500	1000	mg/kg	2		0.29	U
Anthracene	120-12-7	40	400	2500	1000	mg/kg	3		0.22	U
Benzo(ghi)perylene	191-24-2					mg/kg	3.4		0.29	U
Fluorene	86-73-7	5.6	56	2500	1000	mg/kg	1.7	U	0.37	U
Phenanthrene	85-01-8	4	40	2500	1000	mg/kg	12		0.22	U
Dibenzo(a,h)anthracene	53-70-3					mg/kg	1	U	0.22	U
Indeno(1,2,3-cd)Pyrene	193-39-5					mg/kg	2.7		0.29	U
Pyrene	129-00-0	4	40	2500	1000	mg/kg	24		0.22	U
2-Methylnaphthalene	91-57-6					mg/kg	2.1	U	0.44	U
CT RCP Polychlorinated Biphenyls - Westborough Lab										
Aroclor 1016	12674-11-2			10	1	mg/kg	0.0341	U	0.0362	U
Aroclor 1221	11104-28-2			10	1	mg/kg	0.0341	U	0.0362	U
Aroclor 1232	11141-16-5			10	1	mg/kg	0.0341	U	0.0362	U
Aroclor 1242	53469-21-9			10	1	mg/kg	0.0341	U	0.0362	U
Aroclor 1248	12672-29-6			10	1	mg/kg	0.0341	U	0.0362	U
Aroclor 1254	11097-69-1			10	1	mg/kg	0.0341	U	0.0362	U
Aroclor 1260	11096-82-5			10	1	mg/kg	0.0341	U	0.0362	U
Aroclor 1262	37324-23-5			10	1	mg/kg	0.0341	U	0.0362	U
Aroclor 1268	11100-14-4			10	1	mg/kg	0.0341	U	0.0362	U
CT RCP Total Metals - Westborough Lab										
Antimony, Total	7440-36-0			8200	27	mg/kg	3.4		2.1	U
Arsenic, Total	7440-38-2			10	10	mg/kg	4		3	
Barium, Total	7440-39-3			140000	4700	mg/kg	39		21	
Beryllium, Total	7440-41-7			2	2	mg/kg	0.25		0.3	
Cadmium, Total	7440-43-9			1000	34	mg/kg	0.53		0.43	U
Chromium, Total	7440-47-3					mg/kg	52		10	
Copper, Total	7440-50-8			76000	2500	mg/kg	82		13	
Lead, Total	7439-92-1			1000	500	mg/kg	90		4.6	
Mercury, Total	7439-97-6			610	20	mg/kg	0.27		0.08	U
Nickel, Total	7440-02-0			7500	1400	mg/kg	58		16	
Selenium, Total	7782-49-2			10000	340	mg/kg	2	U	2.1	U
Silver, Total	7440-22-4			10000	340	mg/kg	0.4	U	0.43	U
Thallium, Total	7440-28-0			160	5.4	mg/kg	2	U	2.1	U
Vanadium, Total	7440-62-2			14000	470	mg/kg	20		17	
Zinc, Total	7440-66-6			610000	20000	mg/kg	98		34	

DATA SUMMARY TABLE
Chromium Process Storage Site
Shelton, CT
Alpha Analytical

LOCATION							DUP-1		B-4 16-19'	
SAMPLING DATE							9/7/2012		9/6/2012	
LAB SAMPLE ID							L1215938-05		L1215938-06	
SAMPLE TYPE										
SAMPLE DEPTH (ft.)										
	CasNum	CT-GAS	CT-GBS	CT-ICS	CT-RCS	Units		Qual		Qual
CT RCP Volatile Organics by 5035 - Westborough Lab										
Methylene chloride	75-09-2	0.1	1	760	82	mg/kg	0.0067	U	0.0064	U
1,1-Dichloroethane	75-34-3	1.4	14	1000	500	mg/kg	0.001	U	0.00096	U
Chloroform	67-66-3	0.12	1.2	940	100	mg/kg	0.001	U	0.00096	U
Carbon tetrachloride	56-23-5	0.1	1	44	4.7	mg/kg	0.00067	U	0.00064	U
1,2-Dichloropropane	78-87-5	0.1	1	84	9	mg/kg	0.0024	U	0.0022	U
Dibromochloromethane	124-48-1	0.01	0.1	68	7.3	mg/kg	0.00067	U	0.00064	U
1,1,2-Trichloroethane	79-00-5	0.1	1	100	11	mg/kg	0.001	U	0.00096	U
Tetrachloroethene	127-18-4	0.1	1	110	12	mg/kg	0.00067	U	0.00064	U
Chlorobenzene	108-90-7	2	20	1000	500	mg/kg	0.00067	U	0.00064	U
Trichlorofluoromethane	75-69-4					mg/kg	0.0034	U	0.0032	U
1,2-Dichloroethane	107-06-2	0.02	0.2	63	6.7	mg/kg	0.00067	U	0.00064	U
1,1,1-Trichloroethane	71-55-6	4	40	1000	500	mg/kg	0.00067	U	0.00064	U
Bromodichloromethane	75-27-4					mg/kg	0.00067	U	0.00064	U
trans-1,3-Dichloropropene	10061-02-6	0.01	0.1	32	3.4	mg/kg	0.00067	U	0.00064	U
cis-1,3-Dichloropropene	10061-01-5	0.01	0.1	32	3.4	mg/kg	0.00067	U	0.00064	U
1,1-Dichloropropene	563-58-6					mg/kg	0.0034	U	0.0032	U
Bromoform	75-25-2	0.08	0.8	720	78	mg/kg	0.0027	U	0.0026	U
1,1,2,2-Tetrachloroethane	79-34-5	0.01	0.1	29	3.1	mg/kg	0.00067	U	0.00064	U
Benzene	71-43-2	0.02	0.2	200	21	mg/kg	0.0014		0.00064	U
Toluene	108-88-3	20	67	1000	500	mg/kg	0.001	U	0.00096	U
Ethylbenzene	100-41-4	10.1	10.1	1000	500	mg/kg	0.00067	U	0.00064	U
Chloromethane	74-87-3					mg/kg	0.0034	U	0.0032	U
Bromomethane	74-83-9					mg/kg	0.0013	U	0.0013	U
Vinyl chloride	75-01-4	0.04	0.4	3	0.32	mg/kg	0.0013	U	0.0013	U
Chloroethane	75-00-3					mg/kg	0.0013	U	0.0013	U
1,1-Dichloroethene	75-35-4	0.14	1.4	9.5	1	mg/kg	0.00067	U	0.00064	U
trans-1,2-Dichloroethene	156-60-5	2	20	1000	500	mg/kg	0.001	U	0.00096	U
Trichloroethene	79-01-6	0.1	1	520	56	mg/kg	0.0015		0.00097	
1,2-Dichlorobenzene	95-50-1	3.1	3.1	1000	500	mg/kg	0.0034	U	0.0032	U
1,3-Dichlorobenzene	541-73-1	12	120	1000	500	mg/kg	0.0034	U	0.0032	U
1,4-Dichlorobenzene	106-46-7	1.5	15	240	26	mg/kg	0.0034	U	0.0032	U
Methyl tert butyl ether	1634-04-4	2	20	1000	500	mg/kg	0.0013	U	0.0013	U
p/m-Xylene	179601-23-1	19.5	19.5	1000	500	mg/kg	0.0013	U	0.0013	U
o-Xylene	95-47-6	19.5	19.5	1000	500	mg/kg	0.0013	U	0.0013	U
XYLENE (TOTAL)	1330-20-7	19.5	19.5	1000	500	mg/kg	0.0013	U	0.0013	U
cis-1,2-Dichloroethene	156-59-2	1.4	14	1000	500	mg/kg	0.00067	U	0.00064	U
Dibromomethane	74-95-3					mg/kg	0.0067	U	0.0064	U
1,2,3-Trichloropropane	96-18-4					mg/kg	0.0067	U	0.0064	U
Styrene	100-42-5	2	20	1000	500	mg/kg	0.0013	U	0.0013	U
Dichlorodifluoromethane	75-71-8					mg/kg	0.0067	U	0.0064	U
Acetone	67-64-1	14	140	1000	500	mg/kg	0.024	U	0.023	U
Carbon disulfide	75-15-0					mg/kg	0.034	U	0.032	U
2-Butanone	78-93-3	8	80	1000	500	mg/kg	0.0067	U	0.0064	U

DATA SUMMARY TABLE
Chromium Process Storage Site
Shelton, CT
Alpha Analytical

LOCATION							DUP-1		B-4 16-19'	
SAMPLING DATE							9/7/2012		9/6/2012	
LAB SAMPLE ID							L1215938-05		L1215938-06	
SAMPLE TYPE										
SAMPLE DEPTH (ft.)										
	CasNum	CT-GAS	CT-GBS	CT-ICS	CT-RCS	Units		Qual		Qual
4-Methyl-2-pentanone	108-10-1	7	14	1000	500	mg/kg	0.0067	U	0.0064	U
2-Hexanone	591-78-6					mg/kg	0.0067	U	0.0064	U
Acrylonitrile	107-13-1	0.01	0.1	11	1.1	mg/kg	0.0027	U	0.0026	U
Tetrahydrofuran	109-99-9					mg/kg	0.013	U	0.013	U
2,2-Dichloropropane	594-20-7					mg/kg	0.0034	U	0.0032	U
1,2-Dibromoethane	106-93-4	0.01	0.1	0.067	0.007	mg/kg	0.0027	U	0.0026	U
1,3-Dichloropropane	142-28-9					mg/kg	0.0034	U	0.0032	U
1,1,1,2-Tetrachloroethane	630-20-6	0.02	0.2	220	24	mg/kg	0.00067	U	0.00064	U
Bromobenzene	108-86-1					mg/kg	0.0034	U	0.0032	U
n-Butylbenzene	104-51-8					mg/kg	0.00067	U	0.00064	U
sec-Butylbenzene	135-98-8					mg/kg	0.00067	U	0.00064	U
tert-Butylbenzene	98-06-6					mg/kg	0.0034	U	0.0032	U
o-Chlorotoluene	95-49-8					mg/kg	0.0034	U	0.0032	U
p-Chlorotoluene	106-43-4					mg/kg	0.0034	U	0.0032	U
1,2-Dibromo-3-chloropropane	96-12-8					mg/kg	0.0034	U	0.0032	U
Hexachlorobutadiene	87-68-3					mg/kg	0.0034	U	0.0032	U
Isopropylbenzene	98-82-8					mg/kg	0.00067	U	0.00064	U
p-Isopropyltoluene	99-87-6					mg/kg	0.00067	U	0.00064	U
Naphthalene	91-20-3	5.6	56	2500	1000	mg/kg	0.0034	U	0.0032	U
n-Propylbenzene	103-65-1					mg/kg	0.00067	U	0.00064	U
1,2,3-Trichlorobenzene	87-61-6					mg/kg	0.0034	U	0.0032	U
1,2,4-Trichlorobenzene	120-82-1					mg/kg	0.0034	U	0.0032	U
1,3,5-Trimethylbenzene	108-67-8					mg/kg	0.0034	U	0.0032	U
1,2,4-Trimethylbenzene	95-63-6					mg/kg	0.0034	U	0.0032	U
trans-1,4-Dichloro-2-butene	110-57-6					mg/kg	0.0034	U	0.0032	U
1,1,2-Trichloro-1,2,2-Trifluoroetha	76-13-1					mg/kg	0.0027	U	0.0026	U
Extractable Petroleum Hydrocarbons - Westborough Lab										
ETPH-CT	ETPH	500	2500	2500	500	mg/kg	430		15	U
General Chemistry - Westborough Lab										
Solids, Total	NONE					%	94		89	

Exceeds action limit
RL exceeds action limit

Engineering a Sustainable Future

Generic Data Review Checklist

Project: Cr Process Storage
Project #: 80074
Case#: D0104S
Date: 10/1/12
Methods: VOCs, PAHs, PCBs, ETPH, PP Metals + Ba, V
Laboratory: Alpha Analytical
SDG: L1215852, L1215938
Reviewer: G. DeRuzzo

1. Case Narrative and Data Package Completeness (COC and Analyte List Review)

TG-SW-1, TG-SW-2, TG-SW-3, TG-SW-4, TG-B-1, TG-B-2, B-1 0-2, B-1 13-16, B-2 0-2, B-2 9-11, B-3 0-2, B-3 14-16 – submitted 9/6 (L1215852). B-6 0-2, B-6 9-12, B-5 0-2, B-5 6-9, Dup-1, B-4 16-19 – submitted 9/7 (L1215938)

2. Holding Time and Sample Preservation Compliance

Ok

3. Lab and Field Blanks

Ok

4. Laboratory Control Samples

Ok

5. Field Duplicate Precision

B-6 0-2/Dup-1 – As and Cr >50%

6. Laboratory Duplicate Precision

Ok

7. Matrix Spikes

B-4 16-19 – recoveries were low for the following analytes:
Acetone (0 and 0 LCL 54); CS2 (0 and 0 LCL 59%), THF (0 and 0 LCL 70) – concentrations were below reporting limit (diluted?)
Sb (56 and 59 LCL 75%); Zn (73 LCL 75). Post digestion spikes were performed with acceptable recoveries.

8. Surrogate Spikes

ETPH – o-terphenyl low in TG-SW-2. Lab dup on sample sample in control.
ETPH – surrogate low (48%) in the MSD of B-6 0-2 but in control in the sample. No action taken.

9. Internal Standards

Ok

10. Performance Evaluation Samples

NA

11. Reporting Limits

VOCs – medium level: B-1 0-2, B-1 13-16, B-2 0-2, B-3 0-2, B-5 0-2.
ETPH – B-1 0-2 – 2x and B-2 0-2 10x, B-6 0-2 and Dup-1 5x,
Metals – B-1 13-16 2x due to sample matrix.
PAHs – B-6 0-2, B-5 0-2, Dup-01 [B-6 0-2] were diluted 5x due to sample matrix

12. Calibration Issues

Ok

13. Other

TO 74 FINK & SEDRACHE PARKER 9.5.12

SHELTON VT 85° AVERAGE rainy

TANK REMOVAL

8:00 JWB ON-SITE, WALK TARGETED SITE, LOCATE TANK.

8:17 NEDT ON-SITE
Mike SABO
MARK MEDEIROS

8:26 EXCAVATOR ON-SITE
BRAD Bringham

JWB HOLD SAFETY MEETING, HAVE CREW SIGN HASP

8:30 MARK GRINDING OFF BOLTS ON TANK MANWAY AS MARK & BRAD UNLOAD EXCAVATOR.

~~9:00~~ TANK PARTIALLY (1/2) OUT OF GROUND ALREADY. NO need to uncover TOP.

9:00 MANWAY OPEN - TANK MOSTLY EMPTY. EXCAVATOR MOVES IN to clear BRUSH @ TANK AREA.

9.5.12

9:20 AREA CLEARED, CREW PREPS TO PUMP OUT TANK

9:40 BEGIN PUMPING OUT TANK W/ electric sump pump

10:02 ~ 30 GALS PUMPED OUT. MIXTURE IS MOSTLY WATER.

MARK GOTTERS TANK TO CLEAN IT OUT. INITIAL TANK SCREENING:

LEL: 0%
O_2: 20.2%

MARK SCOOPS RESIDUAL TANK CONTENTS INTO Bucket. Bucket PASSED OUT OF TANK & Dumped into DRUM.

MARK ENTERED TANK IN Level C w/ HOIST & HARNESS.

1036 MARK FINISHED cleaning tank Prep to LIFT OUT TANK

TO 74 TANK RM

~ 80 GALLONS REMOVED TOTAL
(PUMPING & CLEANING)

1 FULL DRUM LIQUID
1 FULL DRUM 1/2 LIQUID / 1/2 DEBRIS
(PADS, SUIT, GLOVES ETC.)

11:00 TANK OUT OF GROUND
TALK W/ STEVE VERLENE ABOUT CONCRETE IN AREA OF DAMAGE

11:07 NEXT CUTTING HOLE IN END OF TANK

11:15 LOAD TANK INTO TRUCK
WILL COLLECT & SCREEN SAMPLES FROM EXCAVATION

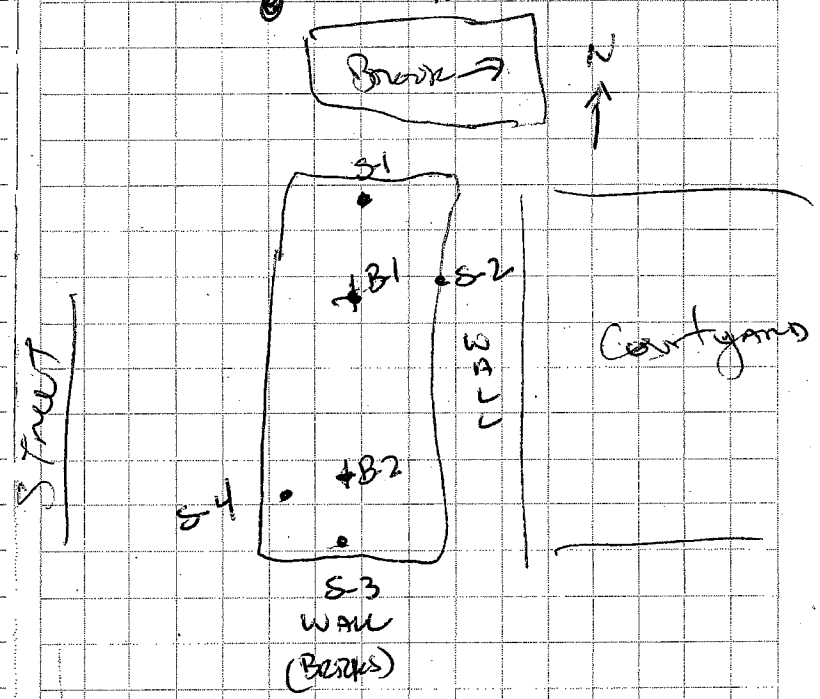
11:30 TRUCK OFF-SITE TO SCRAP YARD
EXCAVATOR FILLING IN TANK GRAVE W/ RESIDUAL SOIL.

TANK EXCAVATION SOILS ARE BROWN, M-F SAND, LITTLE CS & GR.

SOILS ARE DRY, NO WATER IN EXCAVATION

9.05.12

ID	DEPTH		PID	TIME
S-1	~~6'~~	5'	0.4	12:00
S-2	~~6'~~	5'	0.4	12:20
S-3	~~6'~~	5'	2.3	12:29
S-4	~~6'~~	5'	2.6	12:37
B-1	~~6'~~	6'	1.0	12:45
B-2	~~6'~~	6'	1.5	12:55



1340 MARK CLEARING AREA / BULLDOZER RAMP W/ EXCAVATOR FOR TOMORROW'S DRILLING PROJECT.

TO: Frank Bill 9.05.12

12:00 JWB collect lab samples in jars - all 6 samples to be submitted as per Steve V.

12:25 NEDT off-site, JWB continue w/ sampling.

13:00 Sample collection complete - can gain delayed about holding time on low VOCs - Gail will call lab for pickup.

1320 Mike & Mark back on-site

1330 Brad on-site after tank delivered to scrap yard - NEDT load up excavator.

NEDT left 2 empty drums for drilling IDW & GW sampling IDW JWB labeled w/ paint pen.

Tank delivered to Chase Metals in New Haven - Scale ticket acts as proof of disposal. No

Tank receipt.

1400 NEDT off-site, JWB off-site

8:25 JWB ON-SITE, WAIT FOR TDS

8:50 CALL MARK ZOOK - DRILLER STILL NOT ON-SITE.

MARK CALLS DRILLER

STEVE V. CALLS JWB

JAMES JAMES ON-SITE ACROSS ST. TDS DRILLING GEOPROBE: 6620 DT

9:00 UNLOAD RIG, HOLD SAFETY MEETING & SIGN HASP

JWB SHOWS DRILLER LOCATIONS OF BORINGS. DRILLER CONCERNED W/ REF ACCESS IN FINE COURTYARD AREA. CALL STEVE VETERE TO DISCUSS.

9:30 BEGIN B-1 IN NE CORNER TOWARDS RIVER/RR ROW.

10:15 B-1 COMPLETE, MOVE TO B-2 LOCATION IN FINE COURTYARD. EOB @ 25', 10' IN WT.

10:25 BEGIN B-2 IN NE CORNER OF FINE COURTYARD.

10:55 B-2 COMPLETE, EOB @ 20', 10' INTO WT. NO WELL SET. MAX PPM 2.6.

11:10 SET UP ON B-3 LOCATION, BORING LOCATED SE SIDE OF FINE COURTYARD IMMEDIATELY DOWNGRADIENT & ON OTHER SIDE OF WALL/FINE UST LOCATION.

12:20 ALPHA LAB ON-SITE

BORING B-3 COMPLETE → WELL TO BE SET @ 20-22' — EOB @ 20'

SATURATED SOILS START BETWEEN 14-16'

12:32 ALPHA OFF-SITE.

12:45 WELL SET @ 22'

10' SCREEN

SW 2' ABOVE

1' BENTO

NATIVE BACKFILL/CEMENT REMAINS IN.

12:56 BEGIN BORING B-4 JWB CALL STEVE VETERE TO UPDATE PROGRESS.

1345 B-4 EOB @ 25'
NO SAMPLE COLLECTED FROM SURFACE DUE TO "NEW FILL" @ 0-2' INTERVAL (FROM RECENT SLOPE FILL & GRADE WORK).

JAMIE TO DRIVE 3" CASING TO SET WELL.

1415 3" CASING REFUSAL @ 12' BGS — CAN NOT SET WELL, CANNOT CONTINUE TO USE BORING DUE TO EXPENDABLE 3" POINT BLOCKING HOLE. JMB CALL STEVE V. TO UPDATE — NO ANSWER LEAVE MESSAGE.

TDS TO MOVE TO OTHER SIDE OF BROOK FOR REMAINING BORINGS

1500 BEGIN BORING B-5, ADJACENT TO BROOK DAYLIGHTING FROM CULVERT.

1515 EOB @ 18' ~~WELL S~~
WT @ 16'

1530 WELL SET @ 15'
10' SCREEN
SS 2' ABOVE
1' BENTO
NATIVE BACKFILL
CEMENT IN ROADBOX
(NO STAND PIPES BOUGHT)

JMB SPEAK TO STEVE V. - INSTALL 1" WELL @ B-4 LOCATION IF B6 IS CLEAN.

JMB NOTICES STREAM WATER LEVEL RISING. SURFACE WATER IS LIKELY TIDAL.

MOVE TO B-6 LOCATION.

1600 B6 COMPLETE @ 20'
10' INTO WT
MOVE BACK TO OTHER SIDE OF STREAM TO SET 1" WELL.

1630 BEGIN SETTING 1" WELL @ B-4 LOCATION. JMB TO MANAGE SAMPLES.

ID	DEPTH	TIME			
B-1	0-2	10:35			9-6-12
B-1	13-16	10:40			
B-2	0-2	12:15			
B-2	9-11	12:20			
B-3	0-2	12:35			
B-3	14-16	12:09			
B-4	16-19	1400			
B-5	0-2	1657			
B-5	6-9	1705			
B-6	0-2	1640			
B-6	9-12	1650			
DUP-1	--	2400	B-6	0-2	
MS/MSD	--	1405/1410			
TG-SW-1	5	12:00			9-5-12
TG-SW-2	5	12:20			
TG-SW-3	5	12:29			
TG-SW-4	5	12:37			
~~TG-SW-5~~		~~12:45~~			
TG-B-1	6	12:45			
TG-B-2	6	12:55			

NO SOIL IDW SAMPLES RECORDED
NEXT COLLECTED GLUCOSE/WATER SAMPLES

1715 JWB TALK TO GAIL ABOUT SAMPLE PICK UP & DUP SAMPLE. LAB TO PICK UP TOMORROW ~1200.

1730 B-4 1" WELL INSTALLED TO 25'
10' SCREEN
~~50~~ 2' ABOVE
LIMITED BORED
CEMENT IN ROAD BOX

DRILLER/ASST PACK UP EQUIP.

1800 JWB/TDS OFFSITE

Engineering a Sustainable Future

October 1, 2012
Nobis File No. 80074
DTN: MA-3676-2012-F

Mr. Jim Byrne
EPA-New England Region I
5 Post Office Square
Suite 100, Mailcode OSRR07-4
Boston, MA 02109-3912

Re: Contract No.: EP-S1-06-03
Task Order No. 0074-SI-BZ-0100
Case No. 0104S, Sample Delivery Group (SDG) No. D05022, Lab Nos.: L1216489
Alpha Analytical, Westborough, Massachusetts
Chromium Process Storage Site
Shelton, Connecticut

Tier I Modified Organic and Inorganic Data Validation

VOCs, PAHs, PCBs, PP Metals, ETPH:
4/Aqueous/MW-1, MW-2, MW-3, DUP-1
Field Duplicate: MW-1/DUP-1
1/Trip Blank

Dear Mr. Byrne:

Nobis Engineering, Inc. performed a Tier I Modified data validation in accordance with the Region I, EPA-NE Data Validation Functional Guidelines for Evaluating Environmental Analyses, December 1996 Criteria, on the organic and inorganic analytical data for 4 groundwater samples and one trip blank collected by Nobis Engineering, Inc. at the Chromium Process Storage Site located in Shelton, Connecticut. The samples were analyzed for volatile organic compounds (VOCs) by SW-846 Method 8260C, for polycyclic aromatic hydrocarbons (PAHs) by SW-846 Method 8270D, for polychlorinated biphenyls (PCBs) by SW-846 Method 8082, extractable petroleum hydrocarbons (ETPH) by Connecticut Department of Energy and Environmental Protection (CT DEEP) method (CT ETPH) and for priority pollutant (PP) metals plus barium and vanadium by SW-846 Method 6010C/7471B and per DAS Technical Specification DAS-RAC2-068 (Attachment 1). A Tier I modified data validation was deemed sufficient at this time.

Nobis Engineering, Inc.
585 Middlesex Street
Lowell, MA 01851
T (508) 683-0891

The data were evaluated based on the following parameters:

- Overall Evaluation of Data and Potential Usability Issues
- * Data Completeness
- * Preservation and Technical Holding Times
- * Blanks
- * Surrogate Compounds
- * Internal Standards
- Matrix Spikes
- * Laboratory Duplicates
- * Field Duplicates
- Laboratory Control Samples
- Reported Quantitation Limits

* All criteria were met for this parameter.
NA – Not applicable.

Overall Evaluation of Data and Potential Usability Issues

Analytical results from soil and groundwater samples will be used to characterize subsurface conditions at the Site and as the basis for remedial recommendations and cost estimates. Soil and groundwater samples collected during the course of the TBA will be compared to applicable Connecticut Remediation Standard Regulation (RSR) criteria.

Analytes which exceed one or more RSRs are highlighted in the attached data summary table. Sample MW-2 (1,1,1-trichloroethane, PCE, and TCE) had VOCs exceed RSRs.

Data Completeness:

The data packages were complete. All analyses for all submitted samples were completed. There were a few extra VOC compounds reported that were not in the FTWP/QAPPA. These are: 1,1,2-Trichloro-1,2,2-trifluoroethane, acrylonitrile, trans-1,4-dichloro-2-butene, and total xylenes. There were a few VOCs that were requested in the FTWP/QAPPA that were not included in the laboratory reported VOC analyte list. These are: bromochloromethane, diethyl ether, and 1,4-dioxane. Only 1,4-dioxane has RSRs. Aroclor 1262 and 1268 were extra PCB analytes that were reported by the laboratory.

Data presented in the Summary Tables include qualifiers assigned by the laboratory. Qualifications for these parameters were not assessed under the Tier I modified validation.

Laboratory Control Samples:

VOCs:

Analytes had LCSD recoveries and RPDs high for 1,1,2,2-tetrachloroethane, 1,2,3-trichlorobenzene, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, and bromoform. Bromobenzene, 1,1,2-trichloroethane, and 1,2-dibromomethane had high recoveries in the LCSD and trans-1,4-dichloro-2-butene had a high RPD. Results for these analytes should be considered estimated.

Matrix Spikes:

VOCs:

MW-2 was analyzed as the MS/MSD. Several analytes were recovered high: 1,1,1-trichloroethane, 1,2,3-trichloropropane, bromomethane, naphthalene, and 1,2,3-trichlorobenzene. 2-Butanone was recovered below the lower control limit. The RPDs were outside acceptance limits for 2-butanone and naphthalene. Sample results for these analytes for these analytes should be considered estimated (J/UJ).

PAHs:
Benzo(k)fluoranthene had the RPD outside acceptance limits for the MS/MSD. The results for this analyte should be considered estimated.

Metals:
Mercury was recovered high in the MS/MSD. Sample results for mercury should be considered biased high (J/UJ).

Reporting Limits:
VOCs:
Sample MW-2 was analyzed at a dilution factor of 4 due to high concentrations of target analytes. Reporting limits were raised accordingly. As a result of these elevated reporting limits, some analytes did not achieve the RSRs.

Please contact me at (978) 703-6021 or gderuzzo@nobiseng.com should you have any questions or comments regarding this information.

Sincerely,

NOBIS ENGINEERING, INC.

Gail DeRuzzo
Lead Chemist

Tables: Data Summary Tables

Attachment 1: DAS-RAC2-068 Technical Specification, Analysis of Aqueous and Soil Samples for VOCs, VPH, EPH, PCBs, PP Metals Using CT RCP Requirements.

Enclosures: Data Review Checklist
Field Sampling Notes

DATA SUMMARY TABLE
Chromium Process Storage Site
Shelton, CT
Alpha Analytical

Cr Process Storage Site
GW Results

LOCATION							MW-1		MW-2		MW-3		DUP-1	
SAMPLING DATE							9/13/2012		9/13/2012		9/13/2012		9/14/2012	
LAB SAMPLE ID							L1216489-01		L1216489-02		L1216489-03		L1216489-04	
	CasNum	CT-GW-PC	CT-IGWVC	CT-RGWVC	CT-SW-PC	Units		Qual		Qual		Qual		Qual
CT RCP PAHs by SIM - Westborough Lab														
Acenaphthene	83-32-9					ug/l	0.2	U	0.2	U	0.99		0.2	U
Fluoranthene	206-44-0	280			3700	ug/l	0.2	U	0.2	U	0.27		0.2	U
Naphthalene	91-20-3	280				ug/l	0.2	U	0.2	U	0.2	U	0.2	U
Benzo(a)anthracene	56-55-3	0.06			0.3	ug/l	0.05	U	0.05	U	0.05	U	0.05	U
Benzo(a)pyrene	50-32-8	0.2			0.3	ug/l	0.2	U	0.2	U	0.2	U	0.2	U
Benzo(b)fluoranthene	205-99-2	0.08			0.3	ug/l	0.05	U	0.05	U	0.05	U	0.05	U
Benzo(k)fluoranthene	207-08-9	0.5			0.3	ug/l	0.2	U	0.2	U	0.2	U	0.2	U
Chrysene	218-01-9					ug/l	0.2	U	0.2	U	0.2	U	0.2	U
Acenaphthylene	208-96-8	420			0.3	ug/l	0.2	U	0.2	U	0.2	U	0.2	U
Anthracene	120-12-7	2000			1100000	ug/l	0.2	U	0.2	U	0.2	U	0.2	U
Benzo(ghi)perylene	191-24-2					ug/l	0.2	U	0.2	U	0.2	U	0.2	U
Fluorene	86-73-7	280			140000	ug/l	0.2	U	0.2	U	0.47		0.2	U
Phenanthrene	85-01-8	200			0.077	ug/l	0.05	U	0.05	U	0.05	U	0.05	U
Dibenzo(a,h)anthracene	53-70-3					ug/l	0.2	U	0.2	U	0.2	U	0.2	U
Indeno(1,2,3-cd)Pyrene	193-39-5					ug/l	0.2	U	0.2	U	0.2	U	0.2	U
Pyrene	129-00-0	200			110000	ug/l	0.2	U	0.2	U	0.42		0.2	U
2-Methylnaphthalene	91-57-6					ug/l	0.2	U	0.2	U	0.2	U	0.2	U
CT RCP Polychlorinated Biphenyls - Westborough Lab														
Aroclor 1016	12674-11-2	0.5			0.5	ug/l	0.25	U	0.25	U	0.25	U	0.25	U
Aroclor 1221	11104-28-2	0.5			0.5	ug/l	0.25	U	0.25	U	0.25	U	0.25	U
Aroclor 1232	11141-16-5	0.5			0.5	ug/l	0.25	U	0.25	U	0.25	U	0.25	U
Aroclor 1242	53469-21-9	0.5			0.5	ug/l	0.25	U	0.25	U	0.25	U	0.25	U
Aroclor 1248	12672-29-6	0.5			0.5	ug/l	0.25	U	0.25	U	0.25	U	0.25	U
Aroclor 1254	11097-69-1	0.5			0.5	ug/l	0.25	U	0.25	U	0.25	U	0.25	U
Aroclor 1260	11096-82-5	0.5			0.5	ug/l	0.25	U	0.25	U	0.25	U	0.25	U
Aroclor 1262	37324-23-5	0.5			0.5	ug/l	0.25	U	0.25	U	0.25	U	0.25	U
Aroclor 1268	11100-14-4	0.5			0.5	ug/l	0.25	U	0.25	U	0.25	U	0.25	U
CT RCP Total Metals - Westborough Lab														
Antimony, Total	7440-36-0	6			86000	ug/l	1.8		1.6		1.7		1.5	
Arsenic, Total	7440-38-2	50			4	ug/l	1.5		3.2		1.5		1.5	
Barium, Total	7440-39-3	1000				ug/l	19		21		36		19	
Beryllium, Total	7440-41-7	4			4	ug/l	0.5	U	0.5	U	0.5	U	0.5	U
Cadmium, Total	7440-43-9	5			6	ug/l	5	U	5	U	5	U	5	U
Chromium, Total	7440-47-3	50				ug/l	10	U	10	U	10	U	10	U
Copper, Total	7440-50-8	1300			48	ug/l	10	U	10	U	10	U	10	U
Lead, Total	7439-92-1	15			13	ug/l	10	U	10	U	10	U	10	U
Mercury, Total	7439-97-6	2			0.4	ug/l	0.2	U	0.2	U	0.2	U	0.2	U
Nickel, Total	7440-02-0	100			880	ug/l	25	U	25	U	25	U	25	U
Selenium, Total	7782-49-2	50			50	ug/l	10	U	10	U	10	U	10	U
Silver, Total	7440-22-4	36			12	ug/l	7	U	7	U	7	U	7	U
Thallium, Total	7440-28-0	5			63	ug/l	0.5	U	0.5	U	0.5	U	0.5	U
Vanadium, Total	7440-62-2	50				ug/l	10	U	10	U	10	U	10	U
Zinc, Total	7440-66-6	5000			123	ug/l	50	U	50	U	50	U	50	U
CT RCP Volatile Organics - Westborough Lab														
Methylene chloride	75-09-2	5	2200	160	48000	ug/l	5	U	20	U	5	U	5	U

DATA SUMMARY TABLE
Chromium Process Storage Site
Shelton, CT
Alpha Analytical

Cr Process Storage Site
GW Results

LOCATION							**MW-1**		**MW-2**		**MW-3**		**DUP-1**	
SAMPLING DATE							**9/13/2012**		**9/13/2012**		**9/13/2012**		**9/14/2012**	
LAB SAMPLE ID							**L1216489-01**		**L1216489-02**		**L1216489-03**		**L1216489-04**	
	CasNum	**CT-GW-PC**	**CT-IGWVC**	**CT-RGWVC**	**CT-SW-PC**	**Units**		**Qual**		**Qual**		**Qual**		**Qual**
1,1-Dichloroethane	75-34-3	70	41000	3000		ug/l	1.5		38		0.75	U	1.4	
Chloroform	67-66-3	6	62	26	14100	ug/l	0.75	U	3	U	0.75	U	0.75	U
Carbon tetrachloride	56-23-5	5	14	5.3	132	ug/l	0.5	U	2	U	0.5	U	0.5	U
1,2-Dichloropropane	78-87-5	5	58	7.4		ug/l	1.8	U	7	U	1.8	U	1.8	U
Dibromochloromethane	124-48-1	0.5			1020	ug/l	0.5	U	2	U	0.5	U	0.5	U
1,1,2-Trichloroethane	79-00-5	5	2900	220	1260	ug/l	0.75	U	3	U	0.75	U	0.75	U
Tetrachloroethene	127-18-4	5	810	340	88	ug/l	2		14		0.5	U	2.1	
Chlorobenzene	108-90-7	100	23000	1800	420000	ug/l	0.5	U	2	U	0.5	U	0.5	U
Trichlorofluoromethane	75-69-4		4200	1300		ug/l	2.5	U	10	U	2.5	U	2.5	U
1,2-Dichloroethane	107-06-2	1	68	6.5	2970	ug/l	0.5	U	2	U	0.5	U	0.5	U
1,1,1-Trichloroethane	71-55-6	200	16000	6500	62000	ug/l	2.3		210		0.5	U	2	
Bromodichloromethane	75-27-4		73	2.3		ug/l	0.5	U	2	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	10061-02-6	0.5			34000	ug/l	0.5	U	2	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	10061-01-5	0.5			34000	ug/l	0.5	U	2	U	0.5	U	0.5	U
1,1-Dichloropropene	563-58-6					ug/l	2.5	U	10	U	2.5	U	2.5	U
Bromoform	75-25-2	4	2300	75	10800	ug/l	2	U	8	U	2	U	2	U
1,1,2,2-Tetrachloroethane	79-34-5	0.5	54	1.8	110	ug/l	0.5	U	2	U	0.5	U	0.5	U
Benzene	71-43-2	1	310	130	710	ug/l	0.5	U	2	U	0.5	U	0.5	U
Toluene	108-88-3	1000	41000	7100	4000000	ug/l	0.75	U	3	U	0.75	U	0.75	U
Ethylbenzene	100-41-4	700	36000	2700	580000	ug/l	0.5	U	2	U	0.5	U	0.5	U
Chloromethane	74-87-3		5500	390		ug/l	2.5	U	10	U	2.5	U	2.5	U
Bromomethane	74-83-9					ug/l	1	U	4	U	1	U	1	U
Vinyl chloride	75-01-4	2	52	1.6	15750	ug/l	1	U	4	U	1	U	1	U
Chloroethane	75-00-3		29000	12000		ug/l	1	U	4	U	1	U	1	U
1,1-Dichloroethene	75-35-4	7	920	190	96	ug/l	0.5	U	2.4		0.5	U	0.5	U
trans-1,2-Dichloroethene	156-60-5	100	13000	1000		ug/l	0.75	U	3	U	0.75	U	0.75	U
Trichloroethene	79-01-6	5	67	27	2340	ug/l	2.3		13		0.5	U	2.2	
1,2-Dichlorobenzene	95-50-1	600	50000	5100	170000	ug/l	2.5	U	10	U	2.5	U	2.5	U
1,3-Dichlorobenzene	541-73-1	600	50000	4300	26000	ug/l	2.5	U	10	U	2.5	U	2.5	U
1,4-Dichlorobenzene	106-46-7	75	3400	1400	26000	ug/l	2.5	U	10	U	2.5	U	2.5	U
Methyl tert butyl ether	1634-04-4	100	50000	21000		ug/l	1	U	4	U	1	U	1	U
p/m-Xylene	179601-23-1	530				ug/l	1	U	4	U	1	U	1	U
o-Xylene	95-47-6	530				ug/l	1	U	4	U	1	U	1	U
XYLENE (TOTAL)	1330-20-7	530	48000	8700		ug/l	1	U	4	U	1	U	1	U
cis-1,2-Dichloroethene	156-59-2	70	11000	830		ug/l	0.51		5.4		0.5	U	0.5	U
Dibromomethane	74-95-3					ug/l	5	U	20	U	5	U	5	U
1,2,3-Trichloropropane	96-18-4					ug/l	5	U	20	U	5	U	5	U
Styrene	100-42-5	100	42000	3100		ug/l	1	U	4	U	1	U	1	U
Dichlorodifluoromethane	75-71-8		1200	93		ug/l	5	U	20	U	5	U	5	U
Acetone	67-64-1	700	50000	50000		ug/l	5	U	20	U	5	U	5	U
Carbon disulfide	75-15-0					ug/l	5	U	20	U	5	U	5	U
2-Butanone	78-93-3	400	50000	50000		ug/l	5	U	20	U	5	U	5	U
4-Methyl-2-pentanone	108-10-1	350	50000	13000		ug/l	5	U	20	U	5	U	5	U
2-Hexanone	591-78-6					ug/l	5	U	20	U	5	U	5	U
Acrylonitrile	107-13-1	0.5			20	ug/l	5	U	20	U	5	U	5	U
Tetrahydrofuran	109-99-9					ug/l	5	U	20	U	5	U	5	U

DATA SUMMARY TABLE
Chromium Process Storage Site
Shelton, CT
Alpha Analytical

Cr Process Storage Site
GW Results

LOCATION							**MW-1**		**MW-2**		**MW-3**		**DUP-1**	
SAMPLING DATE							**9/13/2012**		**9/13/2012**		**9/13/2012**		**9/14/2012**	
LAB SAMPLE ID							**L1216489-01**		**L1216489-02**		**L1216489-03**		**L1216489-04**	
	CasNum	**CT-GW-PC**	**CT-IGWVC**	**CT-RGWVC**	**CT-SW-PC**	**Units**		**Qual**		**Qual**		**Qual**		**Qual**
2,2-Dichloropropane	594-20-7					ug/l	2.5	U	10	U	2.5	U	2.5	U
1,2-Dibromoethane	106-93-4	0.05	11	0.3		ug/l	2	U	8	U	2	U	2	U
1,3-Dichloropropane	142-28-9					ug/l	2.5	U	10	U	2.5	U	2.5	U
1,1,1,2-Tetrachloroethane	630-20-6	1	64	2		ug/l	0.5	U	2	U	0.5	U	0.5	U
Bromobenzene	108-86-1					ug/l	2.5	U	10	U	2.5	U	2.5	U
n-Butylbenzene	104-51-8		21000	1500		ug/l	0.5	U	2	U	0.5	U	0.5	U
sec-Butylbenzene	135-98-8		20000	1500		ug/l	0.5	U	2	U	0.5	U	0.5	U
tert-Butylbenzene	98-06-6					ug/l	2.5	U	10	U	2.5	U	2.5	U
o-Chlorotoluene	95-49-8					ug/l	2.5	U	10	U	2.5	U	2.5	U
p-Chlorotoluene	106-43-4					ug/l	2.5	U	10	U	2.5	U	2.5	U
1,2-Dibromo-3-chloropropane	96-12-8					ug/l	2.5	U	10	U	2.5	U	2.5	U
Hexachlorobutadiene	87-68-3					ug/l	0.6	U	2.4	U	0.6	U	0.6	U
Isopropylbenzene	98-82-8		6800	2800		ug/l	0.5	U	2	U	0.5	U	0.5	U
p-Isopropyltoluene	99-87-6					ug/l	0.5	U	2	U	0.5	U	0.5	U
Naphthalene	91-20-3	280				ug/l	2.5	U	10	U	2.5	U	2.5	U
n-Propylbenzene	103-65-1					ug/l	0.5	U	2	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	87-61-6					ug/l	2.5	U	10	U	2.5	U	2.5	U
1,2,4-Trichlorobenzene	120-82-1					ug/l	2.5	U	10	U	2.5	U	2.5	U
1,3,5-Trimethylbenzene	108-67-8		3900	280		ug/l	2.5	U	10	U	2.5	U	2.5	U
1,2,4-Trimethylbenzene	95-63-6		4800	360		ug/l	2.5	U	10	U	2.5	U	2.5	U
trans-1,4-Dichloro-2-butene	110-57-6					ug/l	2.5	U	10	U	2.5	U	2.5	U
1,1,2-Trichloro-1,2,2-Trifluoroetha	76-13-1					ug/l	2	U	8	U	2	U	2	U
Extractable Petroleum Hydrocarbons - Westborough Lab														
ETPH-CT	ETPH	500				ug/l	100	U	100	U	100	U	100	U

DATA SUMMARY TABLE
Chromium Process Storage Site
Shelton, CT
Alpha Analytical

Cr Process Storage Site
GW Results

LOCATION							**TRIP BLANK**	
SAMPLING DATE							**9/13/2012**	
LAB SAMPLE ID							**L1216489-05**	
	CasNum	**CT-GW-PC**	**CT-IGWVC**	**CT-RGWVC**	**CT-SW-PC**	**Units**		**Qual**
CT RCP PAHs by SIM - Westborough Lab								
Acenaphthene	83-32-9					ug/l	-	-
Fluoranthene	206-44-0	280			3700	ug/l	-	-
Naphthalene	91-20-3	280				ug/l	-	-
Benzo(a)anthracene	56-55-3	0.06			0.3	ug/l	-	-
Benzo(a)pyrene	50-32-8	0.2			0.3	ug/l	-	-
Benzo(b)fluoranthene	205-99-2	0.08			0.3	ug/l	-	-
Benzo(k)fluoranthene	207-08-9	0.5			0.3	ug/l	-	-
Chrysene	218-01-9					ug/l	-	-
Acenaphthylene	208-96-8	420			0.3	ug/l	-	-
Anthracene	120-12-7	2000			1100000	ug/l	-	-
Benzo(ghi)perylene	191-24-2					ug/l	-	-
Fluorene	86-73-7	280			140000	ug/l	-	-
Phenanthrene	85-01-8	200			0.077	ug/l	-	-
Dibenzo(a,h)anthracene	53-70-3					ug/l	-	-
Indeno(1,2,3-cd)Pyrene	193-39-5					ug/l	-	-
Pyrene	129-00-0	200			110000	ug/l	-	-
2-Methylnaphthalene	91-57-6					ug/l	-	-
CT RCP Polychlorinated Biphenyls - Westborough Lab								
Aroclor 1016	12674-11-2	0.5			0.5	ug/l	-	-
Aroclor 1221	11104-28-2	0.5			0.5	ug/l	-	-
Aroclor 1232	11141-16-5	0.5			0.5	ug/l	-	-
Aroclor 1242	53469-21-9	0.5			0.5	ug/l	-	-
Aroclor 1248	12672-29-6	0.5			0.5	ug/l	-	-
Aroclor 1254	11097-69-1	0.5			0.5	ug/l	-	-
Aroclor 1260	11096-82-5	0.5			0.5	ug/l	-	-
Aroclor 1262	37324-23-5	0.5			0.5	ug/l	-	-
Aroclor 1268	11100-14-4	0.5			0.5	ug/l	-	-
CT RCP Total Metals - Westborough Lab								
Antimony, Total	7440-36-0	6			86000	ug/l	-	-
Arsenic, Total	7440-38-2	50			4	ug/l	-	-
Barium, Total	7440-39-3	1000				ug/l	-	-
Beryllium, Total	7440-41-7	4			4	ug/l	-	-
Cadmium, Total	7440-43-9	5			6	ug/l	-	-
Chromium, Total	7440-47-3	50				ug/l	-	-
Copper, Total	7440-50-8	1300			48	ug/l	-	-
Lead, Total	7439-92-1	15			13	ug/l	-	-
Mercury, Total	7439-97-6	2			0.4	ug/l	-	-
Nickel, Total	7440-02-0	100			880	ug/l	-	-
Selenium, Total	7782-49-2	50			50	ug/l	-	-
Silver, Total	7440-22-4	36			12	ug/l	-	-
Thallium, Total	7440-28-0	5			63	ug/l	-	-
Vanadium, Total	7440-62-2	50				ug/l	-	-
Zinc, Total	7440-66-6	5000			123	ug/l	-	-
CT RCP Volatile Organics - Westborough Lab								
Methylene chloride	75-09-2	5	2200	160	48000	ug/l	5	U

DATA SUMMARY TABLE
Chromium Process Storage Site
Shelton, CT
Alpha Analytical

Cr Process Storage Site
GW Results

LOCATION							**TRIP BLANK**	
SAMPLING DATE							**9/13/2012**	
LAB SAMPLE ID							**L1216489-05**	
	CasNum	**CT-GW-PC**	**CT-IGWVC**	**CT-RGWVC**	**CT-SW-PC**	**Units**		**Qual**
1,1-Dichloroethane	75-34-3	70	41000	3000		ug/l	0.75	U
Chloroform	67-66-3	6	62	26	14100	ug/l	0.75	U
Carbon tetrachloride	56-23-5	5	14	5.3	132	ug/l	0.5	U
1,2-Dichloropropane	78-87-5	5	58	7.4		ug/l	1.8	U
Dibromochloromethane	124-48-1	0.5			1020	ug/l	0.5	U
1,1,2-Trichloroethane	79-00-5	5	2900	220	1260	ug/l	0.75	U
Tetrachloroethene	127-18-4	5	810	340	88	ug/l	0.5	U
Chlorobenzene	108-90-7	100	23000	1800	420000	ug/l	0.5	U
Trichlorofluoromethane	75-69-4		4200	1300		ug/l	2.5	U
1,2-Dichloroethane	107-06-2	1	68	6.5	2970	ug/l	0.5	U
1,1,1-Trichloroethane	71-55-6	200	16000	6500	62000	ug/l	0.5	U
Bromodichloromethane	75-27-4		73	2.3		ug/l	0.5	U
trans-1,3-Dichloropropene	10061-02-6	0.5			34000	ug/l	0.5	U
cis-1,3-Dichloropropene	10061-01-5	0.5			34000	ug/l	0.5	U
1,1-Dichloropropene	563-58-6					ug/l	2.5	U
Bromoform	75-25-2	4	2300	75	10800	ug/l	2	U
1,1,2,2-Tetrachloroethane	79-34-5	0.5	54	1.8	110	ug/l	0.5	U
Benzene	71-43-2	1	310	130	710	ug/l	0.5	U
Toluene	108-88-3	1000	41000	7100	4000000	ug/l	0.75	U
Ethylbenzene	100-41-4	700	36000	2700	580000	ug/l	0.5	U
Chloromethane	74-87-3		5500	390		ug/l	2.5	U
Bromomethane	74-83-9					ug/l	1	U
Vinyl chloride	75-01-4	2	52	1.6	15750	ug/l	1	U
Chloroethane	75-00-3		29000	12000		ug/l	1	U
1,1-Dichloroethene	75-35-4	7	920	190	96	ug/l	0.5	U
trans-1,2-Dichloroethene	156-60-5	100	13000	1000		ug/l	0.75	U
Trichloroethene	79-01-6	5	67	27	2340	ug/l	0.5	U
1,2-Dichlorobenzene	95-50-1	600	50000	5100	170000	ug/l	2.5	U
1,3-Dichlorobenzene	541-73-1	600	50000	4300	26000	ug/l	2.5	U
1,4-Dichlorobenzene	106-46-7	75	3400	1400	26000	ug/l	2.5	U
Methyl tert butyl ether	1634-04-4	100	50000	21000		ug/l	1	U
p/m-Xylene	179601-23-1	530				ug/l	1	U
o-Xylene	95-47-6	530				ug/l	1	U
XYLENE (TOTAL)	1330-20-7	530	48000	8700		ug/l	1	U
cis-1,2-Dichloroethene	156-59-2	70	11000	830		ug/l	0.5	U
Dibromomethane	74-95-3					ug/l	5	U
1,2,3-Trichloropropane	96-18-4					ug/l	5	U
Styrene	100-42-5	100	42000	3100		ug/l	1	U
Dichlorodifluoromethane	75-71-8		1200	93		ug/l	5	U
Acetone	67-64-1	700	50000	50000		ug/l	5	U
Carbon disulfide	75-15-0					ug/l	5	U
2-Butanone	78-93-3	400	50000	50000		ug/l	5	U
4-Methyl-2-pentanone	108-10-1	350	50000	13000		ug/l	5	U
2-Hexanone	591-78-6					ug/l	5	U
Acrylonitrile	107-13-1	0.5			20	ug/l	5	U
Tetrahydrofuran	109-99-9					ug/l	5	U

DATA SUMMARY TABLE
Chromium Process Storage Site
Shelton, CT
Alpha Analytical

Cr Process Storage Site
GW Results

LOCATION							**TRIP BLANK**	
SAMPLING DATE							**9/13/2012**	
LAB SAMPLE ID							**L1216489-05**	
	CasNum	**CT-GW-PC**	**CT-IGWVC**	**CT-RGWVC**	**CT-SW-PC**	**Units**		**Qual**
2,2-Dichloropropane	594-20-7					ug/l	2.5	U
1,2-Dibromoethane	106-93-4	0.05	11	0.3		ug/l	2	U
1,3-Dichloropropane	142-28-9					ug/l	2.5	U
1,1,1,2-Tetrachloroethane	630-20-6	1	64	2		ug/l	0.5	U
Bromobenzene	108-86-1					ug/l	2.5	U
n-Butylbenzene	104-51-8		21000	1500		ug/l	0.5	U
sec-Butylbenzene	135-98-8		20000	1500		ug/l	0.5	U
tert-Butylbenzene	98-06-6					ug/l	2.5	U
o-Chlorotoluene	95-49-8					ug/l	2.5	U
p-Chlorotoluene	106-43-4					ug/l	2.5	U
1,2-Dibromo-3-chloropropane	96-12-8					ug/l	2.5	U
Hexachlorobutadiene	87-68-3					ug/l	0.6	U
Isopropylbenzene	98-82-8		6800	2800		ug/l	0.5	U
p-Isopropyltoluene	99-87-6					ug/l	0.5	U
Naphthalene	91-20-3	280				ug/l	2.5	U
n-Propylbenzene	103-65-1					ug/l	0.5	U
1,2,3-Trichlorobenzene	87-61-6					ug/l	2.5	U
1,2,4-Trichlorobenzene	120-82-1					ug/l	2.5	U
1,3,5-Trimethylbenzene	108-67-8		3900	280		ug/l	2.5	U
1,2,4-Trimethylbenzene	95-63-6		4800	360		ug/l	2.5	U
trans-1,4-Dichloro-2-butene	110-57-6					ug/l	2.5	U
1,1,2-Trichloro-1,2,2-Trifluoroetha	76-13-1					ug/l	2	U
Extractable Petroleum Hydrocarbons - Westborough Lab								
ETPH-CT	ETPH	500				ug/l	-	-

82710 9.10.12

ID	TIME	SAMPLER
11D	12:37	JNB
12	14:50	JNB
14	13:10	JNB
23	09:30	SMD
24	09:55	JNB
30	14:05	SMD
101	11:45	SMD
35	16:55	SMD
DUP-1	24:00	JNB (FROM MW-14)

FMR Cr STORAGE 9.12

SHELTON CT

80074

15:15 JNB ON-SITE, LOCATE WELLS
SET UP TO DEVELOP WELLS

MW-1 = B-3
MW-2 = B-4
MW-3 = B-5

ID	DTW	DTBs	DTBF	GALS OUT	TIMES	TIMEF	FINAL NTU
MW-1	10.54	21.97	22.06	20	15:25	16:00	1.76
MW-2	14.73	23.88	24.78	5	16:20	17:00	2.15
MW-3	6.96	14.73	15.20	20	17:10	17:40	3.48

JNB FLAG BORINGS WHILE WELLS ARE DEVELOPING
MW-1 & 3 DEVELOPED W/ WHALE PUMP & SURGE
MW-2 DEVELOPED W/ PORI PUMP & SURGE

DEVELOPMENT WATER DRUMMED IN
55-GAL DRUM LEFT DURING TANK PULL

15:30 PUMP STOPPED WHILE DEVELOPING MW-1,
CHANGE OUT PUMP & RE-START (15:40)

TO 74 Well Devel. 9.12

16:00 MW-1 FINISHED, SET UP ON MW-2

17:00 MW-2 FINISHED, AREA PACKED UP, HEAD ACROSS RIVER TO MW-3.

17:40 MW-3 FINISHED, PACK UP & MOVE WATER ACROSS RIVER TO DRUM.

18:00 WELL DEVELOPMENT COMPLETE, JNB HEAD TO HOTEL

TO 74 9.13

Cr PROCESS SHELTON CT Sunny

GW SAMPLING & SURVEY

8:20 JNB ON-SITE, SET-UP ON MW-1

8:35 BEGIN LOW FLOW ON MW-1

CALIBRATE HACH TURBIDITY METER.

STD:	20	100	800	/ VERIFY	10
CAL READ:	18.8	98.5	800		10.4

CALIBRATION OK

9:33 CAM GAIL DERUNTZO ABOUT BOTTLE ORDER. BOTTLE QUANTITIES MATCH THOSE LISTED ON BOTTLE REQUEST FORM FROM LAB, BUT QUANTITIES DO NOT ~~EST~~ MATCH BOTTLES NEEDED / LISTED ON TABLE 2 OF QAPP.

- NO TRIP BLANK
- 4 AMBERS PER SAMPLE
- MS/MSD & WELL SAMPLE TO BE TAKEN FROM SAME BOTTLE FOR METALS.

9:45 DeCarlo + Doll Inc. on-site for survey.

Mark Ford - surveyor
Alex Parisi - Rod

JWB show surveyors new points (wells + boring locations) & have them review HASP.

JWB hold safety meeting & continue w/ GW sampling.

MW-1 Low Flow 8:34 - 9:35

9:35 MW-1 sample collected.
Dup-1 collected from MW-1
MW-1 installed in B-3 boring.

1035 Purge complete/ bottles filled.
Move to ~~B~~ MW-2 (B-4 location).

10:40 - 11:15 MW-2 Low Flow
11:15 MW-2 sampled
11:25 MS/MSD collected from MW-2
12:00 Purge complete - JWB report w/ Steve Veteris.

JWB unable to get into vens on neighboring property.
JWB to collect sample of IDW water.

12:50 Pack up & move over to MW-3.

Surveyors packing up equip.

13:10 - 13:45 Low Flow MW-3
13:45 MW-3 sampled
16:00 End Purge
Collect IDW sample from water drum
Purge IDW-1

Close up drum & secure site, load up car.

4 DRUMS ON-SITE

1 P/W PURGE WATER
1 1/2 TANK CLEAN-OUT SLUDGE
1/2 DEBRIS / PPE (IN W/ SLUDGE)
1 EMPTY.

1630 JOB PACKED UP, OFF-SITE.

Engineering a Sustainable Future

Generic Data Review Checklist

Project: Cr Process Storage
Project #: 80074
Case#: D0104S
Date: 10/1/12
Methods: VOCs, PAHs, PCBs, ETPH, PP Metals + Ba, V
Laboratory: Alpha Analytical
SDG: L1216489
Reviewer: G. DeRuzzo

1. Case Narrative and Data Package Completeness (COC and Analyte List Review)

MW-1, MS-2, MW-3, DUP-1, TB
Exceedance – MW-2 PCE, 111-TCA, TCE

2. Holding Time and Sample Preservation Compliance

Ok

3. Lab and Field Blanks

Ok, TB - ok

4. Laboratory Control Samples

VOC – LCSDs and RPDs high 1122 TCA, 123-TCB, 123-TCP, 1,2-DCB, 1,3-DCB, 1,4-DCB, bromoform. LCSD high – 112-TCE, 1,2-DBM, bromobenzene. RPD high – trans 14 DC2Butene.

5. Field Duplicate Precision

MW-1/Dup-1 – ok <30%

6. Laboratory Duplicate Precision

Ok

7. Matrix Spikes

MW-2 VOC – high 111TCA (134/133), 123TCP (132 MS), Bromobenzene (131 MS), Naph (182 MS), 123TCB (133 MS), Low MEK (54 MS). RPDs out for MEK (31) and Naph (45%)

PAH – BKF RPD out 22%
Hg – high (130/127)

8. Surrogate Spikes

Ok

9. Internal Standards

Ok

10. Performance Evaluation Samples

NA

11. Reporting Limits

MW-2 – 4x for VOCs

12. Calibration Issues

Ok

13. Other

APPENDIX E

Appendix E
Remedial Option Cost Estimates
Former Chromium Process Storage Parcel
Shelton, Connecticut

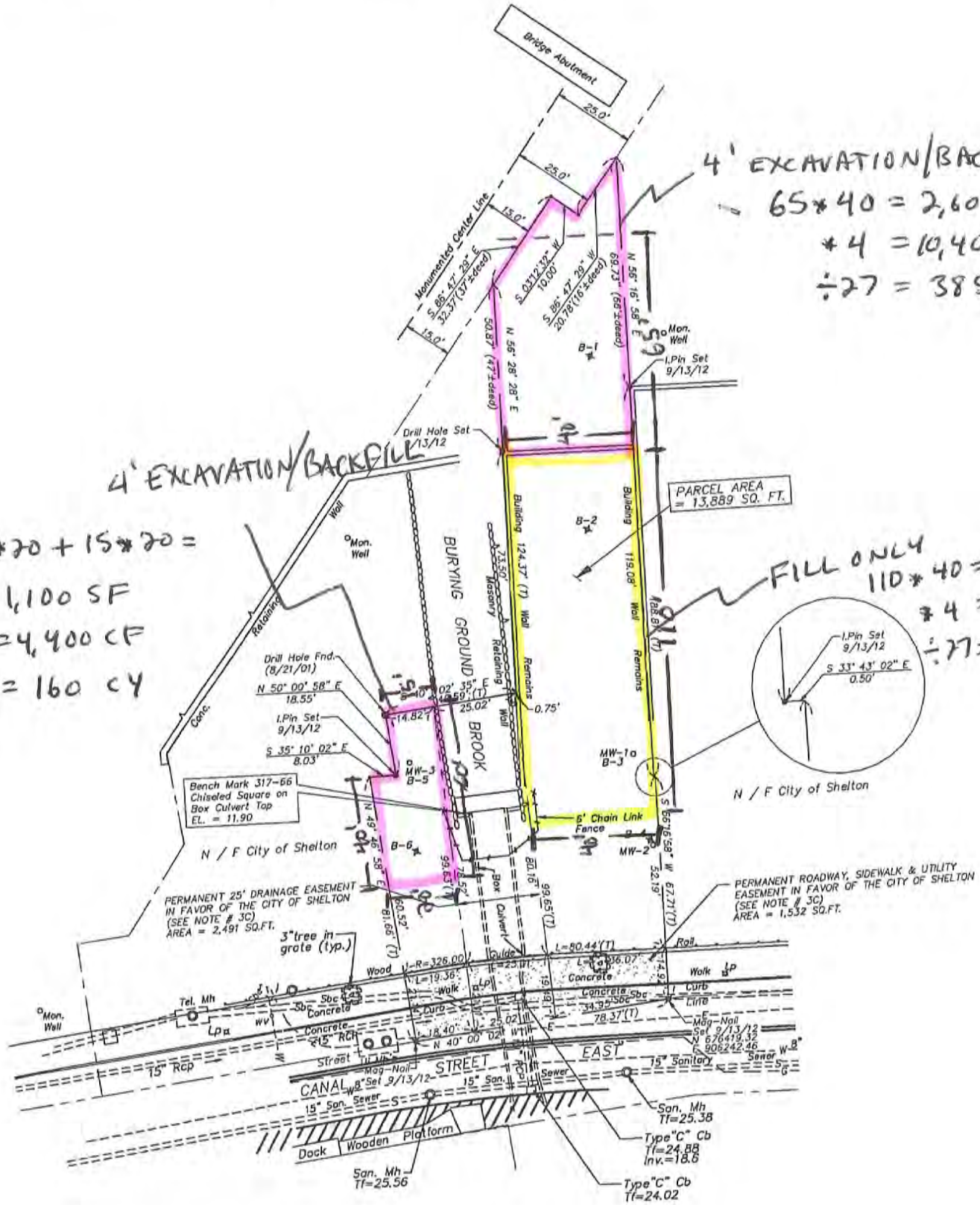
		OPTION 1 SOIL COVER				OPTION 2 ASPHALT/CONCRETE COVER			
ENGINEERING SERVICES									
1	Remedial Action Plan			$4,000				$4,000	
2	Bid Specifications & Drawings			$6,000				$6,000	
3	Construction Oversight & Disposal Soil Samples			$7,500				$7,500	
4	Compaction Testing			$2,000				$2,000	
5	Activity and Use Restriction (AUR)			$6,500				$6,500	
6	Remedial Action Completion Report			$2,500				$2,500	
	TOTAL:			**$28,500**				**$28,500**	
CONTRACTOR CLEANUP FEES									
		QTY	**U/M**	**UNIT PRICE**	**EXT. PRICE**	**QTY**	**U/M**	**UNIT PRICE**	**EXT. PRICE**
1	Mobilization/Demobilization	1	LS	$2,000.00	$2,000	1	LS	$2,500.00	$2,500
2	Site Clearing	1	LS	$1,200.00	$1,200	1	LS	$1,200.00	$1,200
3	Soil Excavation	545	CY	$8.00	$4,360	270	CY	$8.00	$2,160
4	Transportation and Off-Site Disposal	818	TN	$60.00	$49,050	405	TN	$60.00	$24,300
5	Backfill and Compaction	1,380	CY	$12.50	$17,250	1,058	CY	$12.50	$13,225
6	Vegetation, Hydroseed	8	MSF	$80.00	$640	0	MSF	$60.00	$0
7	Asphalt, 3-inch thick	0	SF	$1.67	$0	8,000	SF	$1.67	$13,360
	TOTAL:				**$73,860**				**$43,385**
				OPTION 1 TOTAL				**OPTION 2 TOTAL**	
				$102,360				**$71,885**	

OPTION 1 - SOIL COVER / ELUR

4' EXCAVATION/BACKFILL
65 * 40 = 2,600 SF
* 4 = 10,400 CF
÷ 27 = 385 CY

4' EXCAVATION/BACKFILL
40 * 20 + 15 * 20 =
1,100 SF
* 4 = 4,400 CF
÷ 27 = 160 CY

FILL ONLY
110 * 40 = 4,400 SF
* 4 = 17,600 CF
÷ 27 = 650 CY

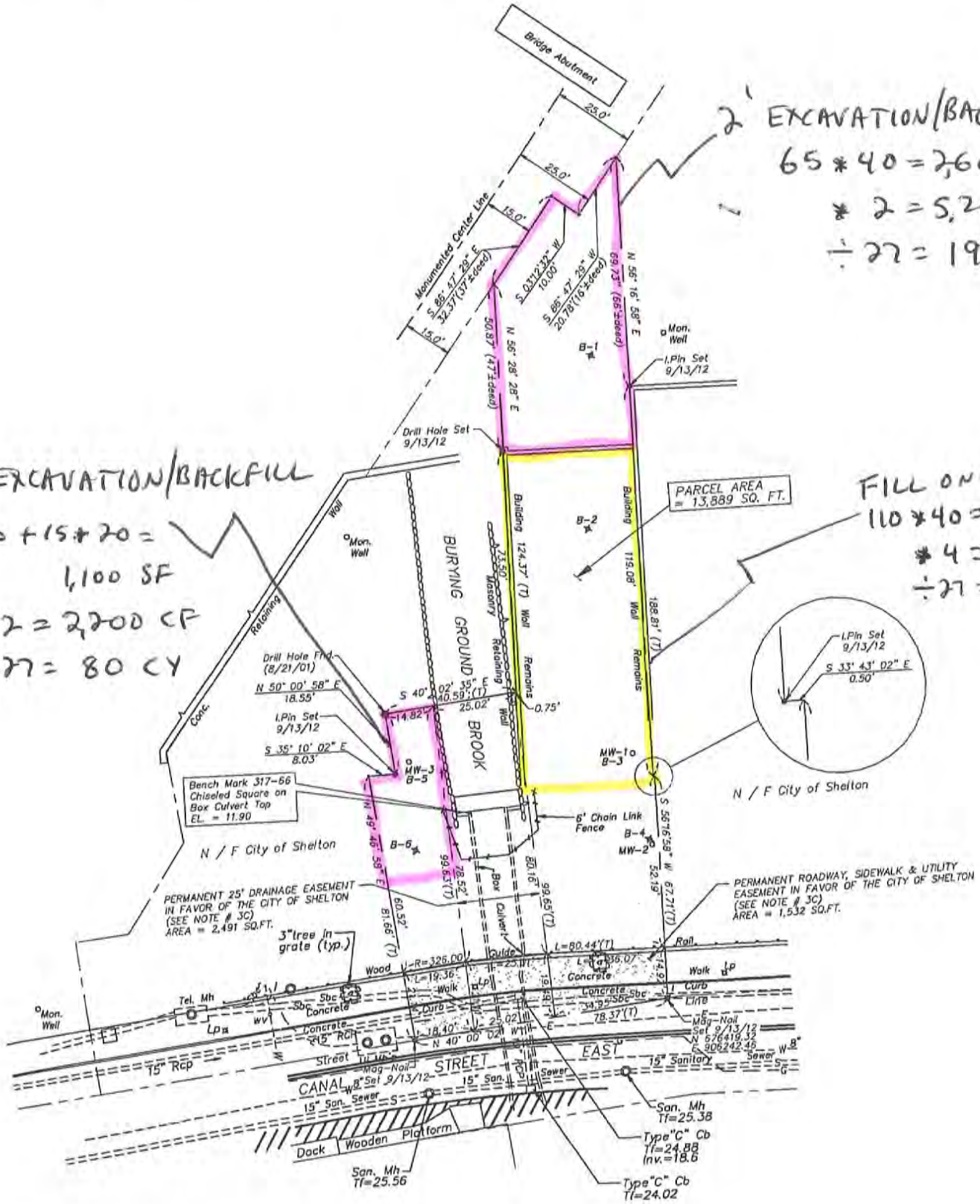


OPTION 2 - ASPHALT COVER / ELUR

2' EXCAVATION/BACKFILL
65 * 40 = 2,600 SF
* 2 = 5,200 CF
÷ 27 = 190 CY

2' EXCAVATION/BACKFILL
40 * 20 + 15 * 20 =
1,100 SF
* 2 = 2,200 CF
÷ 27 = 80 CY

FILL ONLY
110 * 40 = 4,400 SF
* 4 = 17,600 CF
÷ 27 = 650 CY



Appendix B

Supplemental Soil Sampling Documentation, Nobis Engineering, Inc.

MEMORANDUM

To: Jim Byrne, EPA

From: Stephen Vetere, PE, LEP, Nobis Engineering

Subject: March Sampling Results for Former Chromium Process Storage Parcel

Date: May 24, 2016

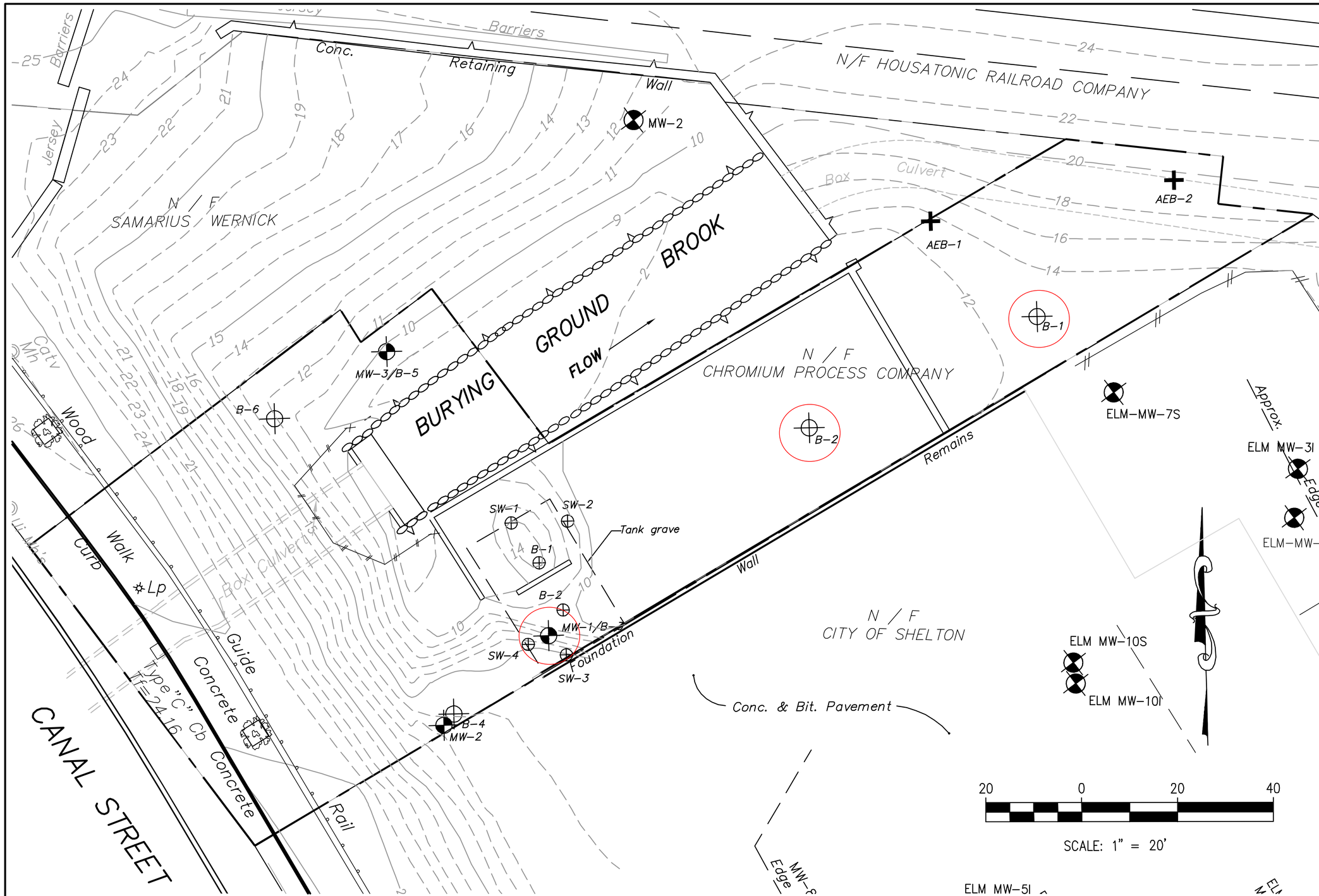
Nobis Engineering completed supplemental soil sampling in support of ongoing response actions at the Former Chromium Process Storage Parcel Site located at 113A East Canal Street in Shelton, Connecticut. Nobis performed the assessment on behalf of the Environmental Protection Agency (EPA) as part of a "grant of service" provided to the City of Shelton under the EPA's Targeted Brownfields Assessment (TBA) program. This work was performed under EPA Contract No. EP-S1-06-03, Task Order No. 0108-SI-BZ-0100.

The supplemental assessment work included the collection of soil samples for laboratory analysis from three shallow soil borings. Soil borings were advanced using a hand auger. The work was completed by Nobis on March 28, 2016. AECOM was on site to assist with soil sample collection activities. Attached please find the following data documenting the findings of the assessment:

- Appendix A: Figure depicting sampling locations
- Appendix B: Field notes
- Appendix C: Analytical data summary
- Appendix D: Laboratory data report
- Appendix E: Data validation memorandum

Nobis Engineering, Inc.
585 Middlesex Street
Lowell, MA 01851
T (978) 683-0891

APPENDIX A



Legend

- AEB-1 — Proposed AECOM soil boring, April 2015
- B-1 — Nobis soil boring, September 2012
- MW-3/B-5 — Nobis monitoring well, September 2012
- SW-1 — Nobis confirmation sample, September 2012
- MW-2 — Existing monitoring well

AECOM

Figure 2. Pre-remedial Assessment Locations
Chromium Process Storage Parcel
113A Canal Street
Shelton, CT

DATE: MARCH 2015 | PROJECT: 60336705

LAST UPDATE: Wednesday, December 09, 2015 6:40:19 PM
PLOT DATE: Tuesday, March 01, 2016 4:56:39 PM
PATH/FILENAME: X:\SHELTON CHROMIUM (LAND PARCEL CLEANUP)\400 TECHNICAL\CAD\RAP FIGURE.DWG
ANSI B – 3-8-05

APPENDIX B

Site: Chromium Process Parcel.
80108.05
Date: 3-28-16 (Mon.)
Personnel: R. Rizza
Weather: 40's, raining
Objective: Using a hand auger, collect soil samples from staked out locations B-1, B-2, and B-3.

0630 Leave Manchester.
1015 Arrive in Shelton, CT. Stop at Home Depot to pickup a brush and spray bottle.
1040 Stop and pickup ice for lab samples.
1050 Onsite. Locate sample locations. Prep. for hand augering.
1200 Begin hand augering at B-1. Subsurface very boney.
1245 B-1, advanced hand auger only to 17" bgs. Many Rx. Call SV, w/ update. Ann from AECOM onsite

SV says to do the best I can given the advase soil conditions.
While I hand auger B-2 and B-3, Ann opens B-1 up and we are able to hand auger to 32.5" bgs. Then we hit refusal again. Ann says 0-3.5' is representative of 0-4' and we sample.
B-2 was advanced to 17" bgs w/ great difficult due to brick and concrete. Ann said 0-1.5' bgs would be adequate.
B-3 was advanced to 29" bgs.
1600 Called Con-Test and scheduled a sample pickup in the Concord office after 11 am on 3-29-16 (Tues.).

	BKgd	PID (ppmv)
B-1 0-2'	2.3	4.4
B-1 0-3.5'	2.8	5.3
B-2 0-1.5'	2.8	5.4

1200 offsite.
1220 Arrive at hotel.

Richard Rizza
3-28-16

Site: Chromium Process Parcel
~~80108~~ (III) 80108.05
Date: 3-29-16 (Tues.)
Personnel: R. Rizza

0610 Leave CT.
~1000 Arrive at Concord office.
Prep. COC, call Pine to stop rental, unload equip. and supplies.

Richard Rizza
3-29-16

APPENDIX C

Soil Sample Results - March 28, 2016
Former Chromium Process Storage Parcel
Shelton, Connecticut

SAMPLE LOCATION					B-1	B-1	B-1	B-2	B-3
SAMPLE DEPTH					0-2 Feet	0-3.5 Feet	2-3.5 Feet	0-1.5 Feet	0-2 Feet
SAMPLE DATE					03/28/2016	03/28/2016	03/28/2016	03/28/2016	03/28/2016
LABORATORY REPORT NUMBER					16C1301	16C1301	16C1301	16C1301	16C1301
PARAMETER	**Res DEC**	**GA PMC**	**GWPC (SPLP)**	**GA PMC (SPLP)**					
Volatile Organic Compounds (mg/kg)									
ACETONE	500	14	~	~	NT	0.16 U	0.18 U	NT	NT
ACRYLONITRILE	1.1	0.01	~	~	NT	0.0098 U	0.011* U	NT	NT
BENZENE	21	0.02	~	~	NT	0.0033 U	0.0037 U	NT	NT
BROMOBENZENE	~	~	~	~	NT	0.0033 U	0.0037 U	NT	NT
BROMODICHLOROMETHANE	9.9	0.011	~	~	NT	0.0033 U	0.0037 U	NT	NT
BROMOFORM	78	0.08	~	~	NT	0.0033 U	0.0037 U	NT	NT
BROMOMETHANE	95	0.2	~	~	NT	0.016 U	0.018 U	NT	NT
2-BUTANONE (MEK)	500	8	~	~	NT	0.065 U	0.074 U	NT	NT
N-BUTYLBENZENE	500	1.4	~	~	NT	0.0033 U	0.0037 U	NT	NT
SEC-BUTYLBENZENE	500	1.4	~	~	NT	0.0033 U	0.0037 U	NT	NT
TERT-BUTYLBENZENE	500	1.4	~	~	NT	0.0033 U	0.0037 U	NT	NT
CARBON DISULFIDE	500	14	~	~	NT	0.0098 U	0.011 U	NT	NT
CARBON TETRACHLORIDE	4.7	0.1	~	~	NT	0.0033 U	0.0037 U	NT	NT
CHLOROBENZENE	500	2	~	~	NT	0.0033 U	0.0037 U	NT	NT
CHLORODIBROMOMETHANE	7.3	0.01	~	~	NT	0.0016 U	0.0018 U	NT	NT
CHLOROETHANE	~	~	~	~	NT	0.033 U	0.037 U	NT	NT
CHLOROFORM	100	0.12	~	~	NT	0.016	0.038	NT	NT
CHLOROMETHANE	47	0.054	~	~	NT	0.016 U	0.018 U	NT	NT
2-CHLOROTOLUENE	~	~	~	~	NT	0.0033 U	0.0037 U	NT	NT
4-CHLOROTOLUENE	~	~	~	~	NT	0.0033 U	0.0037 U	NT	NT
1,2-DIBROMO-3-CHLOROPROPANE	0.44	~	~	~	NT	0.0033 U	0.0037 U	NT	NT
1,2-DIBROMOETHANE (EDB)	0.007	0.01	~	~	NT	0.0016 U	0.0018 U	NT	NT
DIBROMOMETHANE	~	~	~	~	NT	0.0033 U	0.0037 U	NT	NT
1,2-DICHLOROBENZENE	500	3.1	~	~	NT	0.0033 U	0.0037 U	NT	NT
1,3-DICHLOROBENZENE	500	12	~	~	NT	0.0033 U	0.0037 U	NT	NT
1,4-DICHLOROBENZENE	26	1.5	~	~	NT	0.0033 U	0.0037 U	NT	NT
TRANS-1,4-DICHLORO-2-BUTENE	~	~	~	~	NT	0.0065 U	0.0074 U	NT	NT
DICHLORODIFLUOROMETHANE	~	~	~	~	NT	0.033 U	0.037 U	NT	NT
1,1-DICHLOROETHANE	500	1.4	~	~	NT	0.0033 U	0.0037 U	NT	NT
1,2-DICHLOROETHANE	6.7	0.02	~	~	NT	0.0033 U	0.0037 U	NT	NT
1,1-DICHLOROETHYLENE	1	0.14	~	~	NT	0.0065 U	0.0074 U	NT	NT
CIS-1,2-DICHLOROETHYLENE	500	1.4	~	~	NT	0.0033 U	0.0037 U	NT	NT
TRANS-1,2-DICHLOROETHYLENE	500	2	~	~	NT	0.0033 U	0.0037 U	NT	NT
1,2-DICHLOROPROPANE	9	0.1	~	~	NT	0.0033 U	0.0037 U	NT	NT
1,3-DICHLOROPROPANE	~	~	~	~	NT	0.0016 U	0.0018 U	NT	NT
2,2-DICHLOROPROPANE	~	~	~	~	NT	0.0033 U	0.0037 U	NT	NT
1,1-DICHLOROPROPENE	~	~	~	~	NT	0.0033 U	0.0037 U	NT	NT

Soil Sample Results - March 28, 2016
Former Chromium Process Storage Parcel
Shelton, Connecticut

SAMPLE LOCATION					B-1	B-1	B-1	B-2	B-3
SAMPLE DEPTH					0-2 Feet	0-3.5 Feet	2-3.5 Feet	0-1.5 Feet	0-2 Feet
SAMPLE DATE					03/28/2016	03/28/2016	03/28/2016	03/28/2016	03/28/2016
LABORATORY REPORT NUMBER					16C1301	16C1301	16C1301	16C1301	16C1301
PARAMETER	**Res DEC**	**GA PMC**	**GWPC (SPLP)**	**GA PMC (SPLP)**					
Volatile Organic Compounds (mg/kg)									
CIS-1,3-DICHLOROPROPENE	3.4	0.01	~	~	NT	0.0065 U	0.0074 U	NT	NT
TRANS-1,3-DICHLOROPROPENE	3.4	0.01	~	~	NT	0.0016 U	0.0018 U	NT	NT
ETHYLBENZENE	500	10.1	~	~	NT	0.0033 U	0.0037 U	NT	NT
HEXACHLOROBUTADIENE	7.9	1	~	~	NT	0.0033 U	0.0037 U	NT	NT
2-HEXANONE	~	~	~	~	NT	0.033 U	0.037 U	NT	NT
ISOPROPYLBENZENE	500	0.6	~	~	NT	0.0033 U	0.0037 U	NT	NT
P-ISOPROPYLTOLUENE	500	0.6	~	~	NT	0.0033 U	0.0037 U	NT	NT
METHYL TERT-BUTYL ETHER (MTBE)	500	2	~	~	NT	0.0065 U	0.0074 U	NT	NT
METHYLENE CHLORIDE	82	0.1	~	~	NT	0.033 U	0.037 U	NT	NT
4-METHYL-2-PENTANONE (MIBK)	500	7	~	~	NT	0.033 U	0.037 U	NT	NT
NAPHTHALENE	1000	5.6	~	~	NT	0.0065 U	0.0074 U	NT	NT
N-PROPYLBENZENE	500	1.4	~	~	NT	0.0033 U	0.0037 U	NT	NT
STYRENE	500	2	~	~	NT	0.0033 U	0.0037 U	NT	NT
1,1,1,2-TETRACHLOROETHANE	24	0.02	~	~	NT	0.0033 U	0.0037 U	NT	NT
1,1,2,2-TETRACHLOROETHANE	3.1	0.01	~	~	NT	0.0016 U	0.0018 U	NT	NT
TETRACHLOROETHYLENE	12	0.1	~	~	NT	0.0033 U	0.0037 U	NT	NT
TETRAHYDROFURAN	~	~	~	~	NT	0.016 U	0.018 U	NT	NT
TOLUENE	500	20	~	~	NT	0.0033 U	0.0037 U	NT	NT
1,2,3-TRICHLOROBENZENE	~	~	~	~	NT	0.0033 U	0.0037 U	NT	NT
1,2,4-TRICHLOROBENZENE	680	1.4	~	~	NT	0.0033 U	0.0037 U	NT	NT
1,1,1-TRICHLOROETHANE	500	4	~	~	NT	0.0033 U	0.0037 U	NT	NT
1,1,2-TRICHLOROETHANE	11	0.1	~	~	NT	0.0033 U	0.0037 U	NT	NT
TRICHLOROETHYLENE	56	0.1	~	~	NT	0.056	**0.12**	NT	NT
TRICHLOROFLUOROMETHANE	500	26	~	~	NT	0.016 U	0.018 U	NT	NT
1,2,3-TRICHLOROPROPANE	~	~	~	~	NT	0.0033 U	0.0037 U	NT	NT
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	~	~	~	~	NT	0.016 U	0.018 U	NT	NT
1,2,4-TRIMETHYLBENZENE	500	7	~	~	NT	0.0033 U	0.0037 U	NT	NT
1,3,5-TRIMETHYLBENZENE	500	7	~	~	NT	0.0033 U	0.0037 U	NT	NT
VINYL CHLORIDE	0.32	0.04	~	~	NT	0.016 U	0.018 U	NT	NT
M/P-XYLENE	500	19.5	~	~	NT	0.0065 U	0.0074 U	NT	NT
O-XYLENE	500	19.5	~	~	NT	0.0033 U	0.0037 U	NT	NT

Soil Sample Results - March 28, 2016
Former Chromium Process Storage Parcel
Shelton, Connecticut

SAMPLE LOCATION					B-1	B-1	B-1	B-2	B-3
SAMPLE DEPTH					0-2 Feet	0-3.5 Feet	2-3.5 Feet	0-1.5 Feet	0-2 Feet
SAMPLE DATE					03/28/2016	03/28/2016	03/28/2016	03/28/2016	03/28/2016
LABORATORY REPORT NUMBER					16C1301	16C1301	16C1301	16C1301	16C1301
PARAMETER	**Res DEC**	**GA PMC**	**GWPC (SPLP)**	**GA PMC (SPLP)**					
SPLP VOCs (µg/L)									
ACETONE	~	~	700	~	50 U	NT	NT	50 U	50 U
ACRYLONITRILE	~	~	0.5	~	5.0* U	NT	NT	5.0* U	5.0* U
BENZENE	~	~	1	~	1.0 U	NT	NT	1.0 U	1.0 U
BROMOBENZENE	~	~	~	~	1.0 U	NT	NT	1.0 U	1.0 U
BROMODICHLOROMETHANE	~	~	0.56	~	0.5 U	NT	NT	0.5 U	0.5 U
BROMOFORM	~	~	4	~	2.0 U	NT	NT	1.0 U	2.0 U
BROMOMETHANE	~	~	9.8	~	2.0 U	NT	NT	2.0 U	2.0 U
2-BUTANONE (MEK)	~	~	400	~	20 U	NT	NT	20 U	20 U
N-BUTYLBENZENE	~	~	61	~	1.0 U	NT	NT	1.0 U	1.0 U
SEC-BUTYLBENZENE	~	~	61	~	1.0 U	NT	NT	1.0 U	1.0 U
TERT-BUTYLBENZENE	~	~	61	~	1.0 U	NT	NT	1.0 U	1.0 U
CARBON DISULFIDE	~	~	700	~	4.0 U	NT	NT	4.0 U	4.0 U
CARBON TETRACHLORIDE	~	~	5	~	5.0 U	NT	NT	5.0 U	5.0 U
CHLOROBENZENE	~	~	100	~	1.0 U	NT	NT	1.0 U	1.0 U
CHLORODIBROMOMETHANE	~	~	0.5	~	0.5 U	NT	NT	0.5 U	0.5 U
CHLOROETHANE	~	~	~	~	2.0 U	NT	NT	2.0 U	2.0 U
CHLOROFORM	~	~	6	~	2.0 U	NT	NT	2.0 U	2.0 U
CHLOROMETHANE	~	~	2.7	~	2.0 U	NT	NT	2.0 U	2.0 U
2-CHLOROTOLUENE	~	~	~	~	1.0 U	NT	NT	1.0 U	1.0 U
4-CHLOROTOLUENE	~	~	~	~	1.0 U	NT	NT	1.0 U	1.0 U
1,2-DIBROMO-3-CHLOROPROPANE	~	~	~	~	5.0 U	NT	NT	5.0 U	5.0 U
1,2-DIBROMOETHANE (EDB)	~	~	0.05	~	0.5* U	NT	NT	0.5* U	0.5* U
DIBROMOMETHANE	~	~	~	~	1.0 U	NT	NT	1.0 U	1.0 U
1,2-DICHLOROBENZENE	~	~	600	~	1.0 U	NT	NT	1.0 U	1.0 U
1,3-DICHLOROBENZENE	~	~	600	~	1.0 U	NT	NT	1.0 U	1.0 U
1,4-DICHLOROBENZENE	~	~	75	~	1.0 U	NT	NT	1.0 U	1.0 U
TRANS-1,4-DICHLORO-2-BUTENE	~	~	~	~	2.0 U	NT	NT	2.0 U	2.0 U
DICHLORODIFLUOROMETHANE	~	~	~	~	2.0 U	NT	NT	2.0 U	2.0 U
1,1-DICHLOROETHANE	~	~	70	~	1.0 U	NT	NT	1.0 U	1.0 U
1,2-DICHLOROETHANE	~	~	1	~	1.0 U	NT	NT	1.0 U	1.0 U
1,1-DICHLOROETHYLENE	~	~	7	~	1.0 U	NT	NT	1.0 U	1.0 U
CIS-1,2-DICHLOROETHYLENE	~	~	70	~	1.0 U	NT	NT	1.0 U	1.0 U
TRANS-1,2-DICHLOROETHYLENE	~	~	100	~	1.0 U	NT	NT	1.0 U	1.0 U
1,2-DICHLOROPROPANE	~	~	5	~	1.0 U	NT	NT	1.0 U	1.0 U
1,3-DICHLOROPROPANE	~	~	~	~	0.5 U	NT	NT	0.5 U	0.5 U
2,2-DICHLOROPROPANE	~	~	~	~	1.0 U	NT	NT	1.0 U	1.0 U
1,1-DICHLOROPROPENE	~	~	~	~	2.0 U	NT	NT	2.0 U	2.0 U

Soil Sample Results - March 28, 2016
Former Chromium Process Storage Parcel
Shelton, Connecticut

SAMPLE LOCATION					B-1	B-1	B-1	B-2	B-3
SAMPLE DEPTH					0-2 Feet	0-3.5 Feet	2-3.5 Feet	0-1.5 Feet	0-2 Feet
SAMPLE DATE					03/28/2016	03/28/2016	03/28/2016	03/28/2016	03/28/2016
LABORATORY REPORT NUMBER					16C1301	16C1301	16C1301	16C1301	16C1301
PARAMETER	**Res DEC**	**GA PMC**	**GWPC (SPLP)**	**GA PMC (SPLP)**					
SPLP VOCs (µg/L)									
CIS-1,3-DICHLOROPROPENE	~	~	0.5	~	0.5 U	NT	NT	0.5 U	0.5 U
TRANS-1,3-DICHLOROPROPENE	~	~	0.5	~	0.5 U	NT	NT	0.5 U	0.5 U
ETHYLBENZENE	~	~	700	~	1.0 U	NT	NT	1.0 U	1.0 U
HEXACHLOROBUTADIENE	~	~	0.45	~	0.5* U	NT	NT	0.5* U	0.5* U
2-HEXANONE	~	~	~	~	10 U	NT	NT	10 U	10 U
ISOPROPYLBENZENE	~	~	30	~	1.0 U	NT	NT	1.0 U	1.0 U
P-ISOPROPYLTOLUENE	~	~	30	~	1.0 U	NT	NT	1.0 U	1.0 U
METHYL TERT-BUTYL ETHER (MTBE)	~	~	70	~	1.0 U	NT	NT	1.0 U	1.0 U
METHYLENE CHLORIDE	~	~	5	~	5.0 U	NT	NT	5.0 U	5.0 U
4-METHYL-2-PENTANONE (MIBK)	~	~	350	~	10 U	NT	NT	10 U	10 U
NAPHTHALENE	~	~	280	~	60	NT	NT	2.0 U	2.0 U
N-PROPYLBENZENE	~	~	61	~	1.0 U	NT	NT	1.0 U	1.0 U
STYRENE	~	~	100	~	1.0 U	NT	NT	1.0 U	1.0 U
1,1,1,2-TETRACHLOROETHANE	~	~	1	~	1.0 U	NT	NT	1.0 U	1.0 U
1,1,2,2-TETRACHLOROETHANE	~	~	0.5	~	0.5 U	NT	NT	0.5 U	0.5 U
TETRACHLOROETHYLENE	~	~	5	~	1.0 U	NT	NT	1.0 U	1.0 U
TETRAHYDROFURAN	~	~	~	~	10 U	NT	NT	10 U	10 U
TOLUENE	~	~	1000	~	1.0 U	NT	NT	1.0 U	1.0 U
1,2,3-TRICHLOROBENZENE	~	~	~	~	5.0 U	NT	NT	5.0 U	5.0 U
1,2,4-TRICHLOROBENZENE	~	~	70	~	1.0 U	NT	NT	1.0 U	1.0 U
1,1,1-TRICHLOROETHANE	~	~	200	~	1.0 U	NT	NT	1.0 U	1.0 U
1,1,2-TRICHLOROETHANE	~	~	5	~	1.0 U	NT	NT	1.0 U	1.0 U
TRICHLOROETHYLENE	~	~	5	~	1.4	NT	NT	3.3	1.0 U
TRICHLOROFLUOROMETHANE	~	~	1300	~	2.0 U	NT	NT	2.0 U	2.0 U
1,2,3-TRICHLOROPROPANE	~	~	~	~	2.0 U	NT	NT	2.0 U	2.0 U
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	~	~	~	~	1.0 U	NT	NT	1.0 U	1.0 U
1,2,4-TRIMETHYLBENZENE	~	~	350	~	1.0 U	NT	NT	1.0 U	1.0 U
1,3,5-TRIMETHYLBENZENE	~	~	350	~	1.0 U	NT	NT	1.0 U	1.0 U
VINYL CHLORIDE	~	~	2	~	2.0 U	NT	NT	2.0 U	2.0 U
M/P-XYLENE	~	~	530	~	2.0 U	NT	NT	2.0 U	2.0 U
O-XYLENE	~	~	530	~	1.0 U	NT	NT	1.0 U	1.0 U
Polycyclic Aromatic Hydrocarbons (mg/kg)									
ACENAPHTHENE	1000	8.4	~	~	0.44 U	NT	0.24 U	NT	NT
ACENAPHTHYLENE	1000	8.4	~	~	0.58	NT	0.37	NT	NT
ANTHRACENE	1000	40	~	~	0.44 U	NT	0.59	NT	NT
BENZO(A)ANTHRACENE	1	1	~	~	**1.5**	NT	0.88	NT	NT
BENZO(A)PYRENE	1	1	~	~	**1.6**	NT	0.84	NT	NT

Soil Sample Results - March 28, 2016
Former Chromium Process Storage Parcel
Shelton, Connecticut

SAMPLE LOCATION					B-1	B-1	B-1	B-2	B-3
SAMPLE DEPTH					0-2 Feet	0-3.5 Feet	2-3.5 Feet	0-1.5 Feet	0-2 Feet
SAMPLE DATE					03/28/2016	03/28/2016	03/28/2016	03/28/2016	03/28/2016
LABORATORY REPORT NUMBER					16C1301	16C1301	16C1301	16C1301	16C1301
PARAMETER	**Res DEC**	**GA PMC**	**GWPC (SPLP)**	**GA PMC (SPLP)**					
Polycyclic Aromatic Hydrocarbons (mg/kg)									
BENZO(B)FLUORANTHENE	1	1	~	~	**2.3**	NT	**1.1**	NT	NT
BENZO(G,H,I)PERYLENE	1000	4.2	~	~	1.1	NT	0.4	NT	NT
BENZO(K)FLUORANTHENE	8.4	1	~	~	0.85	NT	0.42	NT	NT
CHRYSENE	84	1	~	~	**1.7**	NT	0.8	NT	NT
DIBENZ(A,H)ANTHRACENE	1	1	~	~	0.44 U	NT	0.24 U	NT	NT
FLUORANTHENE	1000	5.6	~	~	3.4	NT	2.2	NT	NT
FLUORENE	1000	5.6	~	~	0.44 U	NT	0.48	NT	NT
INDENO(1,2,3-CD)PYRENE	1	1	~	~	**1.1**	NT	0.47	NT	NT
2-METHYLNAPHTHALENE	474	0.98	~	~	0.44 U	NT	0.53	NT	NT
NAPHTHALENE	1000	5.6	~	~	0.44 U	NT	0.83	NT	NT
PHENANTHRENE	1000	4	~	~	1.4	NT	2	NT	NT
PYRENE	1000	4	~	~	2.7	NT	0.24 U	NT	NT
CTDEP ETPH (mg/kg)									
CT ETPH	500	500	~	~	NT	NT	130	NT	NT
SPLP ETPH (mg/L)									
CT ETPH	~	~	0.25	~	NT	NT	NT	**0.85**	NT
Polychlorinated Biphenyls (mg/kg)									
PCB 1016	1	~	~	~	NT	0.13 U	0.14 U	NT	NT
PCB 1221	1	~	~	~	NT	0.13 U	0.14 U	NT	NT
PCB 1232	1	~	~	~	NT	0.13 U	0.14 U	NT	NT
PCB 1242	1	~	~	~	NT	0.13 U	0.14 U	NT	NT
PCB 1248	1	~	~	~	NT	0.13 U	0.14 U	NT	NT
PCB 1254	1	~	~	~	NT	0.13 U	0.14 U	NT	NT
PCB 1260	1	~	~	~	NT	0.13 U	0.14 U	NT	NT
PCB 1262	1	~	~	~	NT	0.13 U	0.14 U	NT	NT
PCB 1268	1	~	~	~	NT	0.13 U	0.14 U	NT	NT
Metals (mg/kg)									
ANTIMONY	27	~	~	~	NT	14	3.4 U	NT	NT
ARSENIC	10	~	~	~	NT	3.1 U	3.4 U	NT	NT
BARIUM	4700	~	~	~	NT	160	300	NT	NT
BERYLLIUM	2	~	~	~	NT	0.72	**2.4**	NT	NT
CADMIUM	34	~	~	~	NT	1.8	1.2	NT	NT
CHROMIUM	~	~	~	~	NT	78	23	NT	NT
COPPER	2500	~	~	~	NT	530	600	NT	NT
LEAD	400	~	~	~	NT	390	160	NT	NT
MERCURY	20	~	~	~	NT	0.32	0.06	NT	NT
NICKEL	1400	~	~	~	NT	61	29	NT	NT

Soil Sample Results - March 28, 2016
Former Chromium Process Storage Parcel
Shelton, Connecticut

SAMPLE LOCATION					B-1	B-1	B-1	B-2	B-3
SAMPLE DEPTH					0-2 Feet	0-3.5 Feet	2-3.5 Feet	0-1.5 Feet	0-2 Feet
SAMPLE DATE					03/28/2016	03/28/2016	03/28/2016	03/28/2016	03/28/2016
LABORATORY REPORT NUMBER					16C1301	16C1301	16C1301	16C1301	16C1301
PARAMETER	**Res DEC**	**GA PMC**	**GWPC (SPLP)**	**GA PMC (SPLP)**					
Metals (mg/kg)									
SELENIUM	340	~	~	~	NT	6.1 U	6.9 U	NT	NT
SILVER	340	~	~	~	NT	0.61 U	0.69 U	NT	NT
THALLIUM	5.4	~	~	~	NT	3.1 U	3.4 U	NT	NT
VANADIUM	470	~	~	~	NT	50	27	NT	NT
ZINC	20000	~	~	~	NT	290	160	NT	NT
SPLP Metals (µg/L)									
ANTIMONY	~	~	~	6	NT	NT	5 U	5 U	5 U
ARSENIC	~	~	~	10	NT	NT	2 U	3.4	3.5
BARIUM	~	~	~	1000	NT	NT	50 U	50 U	50 U
BERYLLIUM	~	~	~	4	NT	NT	2 U	2 U	2 U
CADMIUM	~	~	~	5	NT	NT	2.5 U	2.5 U	2.5 U
CHROMIUM	~	~	~	50	NT	NT	5 U	5 U	10
COPPER	~	~	~	1300	NT	NT	25 U	25 U	41
LEAD	~	~	~	15	NT	NT	7.3	7.3	**73**
MERCURY	~	~	~	0.002	NT	NT	0.0001 U	0.0001 U	0.0001 U
NICKEL	~	~	~	100	NT	NT	25 U	25 U	25 U
SELENIUM	~	~	~	50	NT	NT	25 U	25 U	25 U
SILVER	~	~	~	36	NT	NT	2.5 U	2.5 U	2.5 U
THALLIUM	~	~	~	5	NT	NT	1 U	1 U	1 U
VANADIUM	~	~	~	50	NT	NT	25 U	25 U	**72**
ZINC	~	~	~	5000	NT	NT	50 U	50 U	51
SM 2540G (% Wt)									
% Solids	~	~	~	~	77.8	79.8	72.3	60.6	71.4

NOTES:
1. Res DEC = RSR Residential Direct Exposure Criteria
2. GA PMC = RSR GA Pollutant Mobility Criteria (mg/kg standards compared to "total" results, ug/L standards compared to SPLP results)
3. GWPC = RSR Groundwater Protection Criteria (compared to SPLP VOC and ETPH data)
4. SPLP = Synthetic Precipitation Leaching Procedure
5. mg/kg = milligram per kilogram (dry weight); mg/L = milligram per liter; ug/L = microgram per liter
6. An asterisk (*) following a detection limit indicates that the minimum laboratory reporting limit exceeds one or more of the regulatory criteria.
7. NT = Not tested. U=Not detected. J=estimated value.
8. ~ = No Standard available
9. Shaded values exceed the RSR Direct Exposure Criteria (DEC) for the parameter.
10. Bolded values exceed the RSR PMC for the parameter.
11. RSR criteria are in the same units as the analyte.

APPENDIX D

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

May 19, 2016

Steve Vetere
Nobis Engineering - NH
18 Chenell Drive
Concord, NH 03301

Project Location: Shelton, CT
Client Job Number:
Project Number: 80108.05
Laboratory Work Order Number: 16C1301

Enclosed are results of analyses for samples received by the laboratory on March 29, 2016. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Meghan E. Kelley
Project Manager

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con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Nobis Engineering - NH
18 Chenell Drive
Concord, NH 03301
ATTN: Steve Vetere

REPORT DATE: 5/19/2016

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 80108.05

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 16C1301

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Shelton, CT

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
Trip Blank	16C1301-01	Trip Blank Soil		SW-846 8260C	
B-1 0-2'	16C1301-02	Soil		SM 2540G	
				SW-846 1312	
				SW-846 8260C	
				SW-846 8270D	
B-1 2-3.5'	16C1301-03	Soil		CTDEP ETPH	
				SM 2540G	
				SW-846 1312	
				SW-846 6010C-D	
				SW-846 6020A-B	
				SW-846 7470A	
				SW-846 7471B	
				SW-846 8082A	
				SW-846 8260C	
				SW-846 8270D	
B-1 0-3.5'	16C1301-04	Soil		SM 2540G	
				SW-846 1030	
				SW-846 6010C-D	
				SW-846 7471B	
				SW-846 8015C	
				SW-846 8082A	
				SW-846 8260C	
				SW-846 9014	
				SW-846 9030A	
				SW-846 9045C	
B-2 0-1.5'	16C1301-05	Soil		CTDEP ETPH	
				SM 2540G	
				SW-846 1312	
				SW-846 6020A-B	
				SW-846 7470A	
				SW-846 8260C	
B-3 0-2'	16C1301-06	Soil		SM 2540G	
				SW-846 1312	
				SW-846 6020A-B	
				SW-846 7470A	
				SW-846 8260C	

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

REVISED REPORT 05-19-16: The first set of metals data for sample 16C1301-04 appeared atypical by client and were rerun on 5/12/2016. These results differed from the original run for some metals. Sample was rerun on 5/19/16 which confirmed results from 5/12/16. Original results appear to be anomalous, second set of data from 5/12/2016 is being reported.

For method 8270, only a select list of compounds were requested and reported.

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SW-846 6010C-D

Qualifications:

B

Analyte is found in the associated blank as well as in the sample.

Analyte & Samples(s) Qualified:

Zinc
16C1301-03[B-1 2-3.5'], B145428-BS1, B145428-BSD1, B145428-DUP1, B145428-MS1

B-07

Data is not affected by elevated level in blank since sample result is >10x level found in the blank.

Analyte & Samples(s) Qualified:

Zinc
16C1301-03[B-1 2-3.5'], B145428-BLK1

L-10

The reporting limit verification for the AIHA lead program is outside of control limits for this element. Any reported result at or near the detection limit may be bias on the high side.

Analyte & Samples(s) Qualified:

Lead
B145428-MRL1

MS-07

Matrix spike recovery is outside of control limits. Analysis is in control based on laboratory fortified blank recovery. Possiblity of sample matrix effects that lead to low bias for reported result or non-homogeneous sample aliquot cannot be eliminated.

Analyte & Samples(s) Qualified:

Antimony
16C1301-03[B-1 2-3.5'], B145428-MS1, B149517-MS1

Arsenic
16C1301-03[B-1 2-3.5'], B145428-MS1

Selenium
16C1301-03[B-1 2-3.5'], B145428-MS1, B149517-MS1

MS-11

Matrix spike recovery outside of control limits. Possibility of sample matrix effects that lead to a high bias for reported result or non-homogeneous sample aliquots cannot be eliminated.

Analyte & Samples(s) Qualified:

Chromium
B149517-MS1

MS-19

Sample to spike ratio is greater than or equal to 4:1. Spiked amount is not representative of the native amount in the sample. Appropriate or meaningful recoveries cannot be calculated.

Analyte & Samples(s) Qualified:

Barium
16C1301-03[B-1 2-3.5'], B145428-MS1, B149517-MS1

Copper
16C1301-03[B-1 2-3.5'], B145428-MS1, B149517-MS1

Lead
B149517-MS1

Zinc
16C1301-03[B-1 2-3.5'], B145428-MS1, B149517-MS1

R-02

Duplicate RPD is outside of control limits. Outlier can be attributed to sample non-homogeneity encountered during sample prep.

Analyte & Samples(s) Qualified:

Copper
16C1301-03[B-1 2-3.5'], B145428-DUP1

Zinc
16C1301-03[B-1 2-3.5'], B145428-DUP1

SW-846 8260C

Qualifications:

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L-01

Laboratory fortified blank /laboratory control sample recovery outside of control limits. Data validation is not affected since all results are "not detected" for all samples in this batch for this compound and bias is on the high side.

Analyte & Samples(s) Qualified:

Chloromethane
B146181-BS1

Dichlorodifluoromethane (Freon 1
B146103-BS1

L-03

Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be biased on the low side.

Analyte & Samples(s) Qualified:

1,2-Dibromo-3-chloropropane (DB
16C1301-02[B-1 0-2'], 16C1301-06[B-3 0-2'], B146103-BLK1, B146103-BS1

2,2-Dichloropropane
16C1301-05RE1[B-2 0-1.5'], B146181-BLK1, B146181-BS1

Bromoform
16C1301-02[B-1 0-2'], 16C1301-06[B-3 0-2'], B146103-BLK1, B146103-BS1

V-05

Continuing calibration did not meet method specifications and was biased on the low side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the low side.

Analyte & Samples(s) Qualified:

1,2-Dibromo-3-chloropropane (DB
16C1301-02[B-1 0-2'], 16C1301-06[B-3 0-2'], B146103-BLK1, B146103-BS1

2,2-Dichloropropane
16C1301-05RE1[B-2 0-1.5'], B146181-BLK1, B146181-BS1

Bromoform
16C1301-02[B-1 0-2'], 16C1301-06[B-3 0-2'], B146103-BLK1, B146103-BS1

V-20

Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

Analyte & Samples(s) Qualified:

Bromomethane
B146181-BS1

Chloromethane
B146181-BS1

Dichlorodifluoromethane (Freon 1
B146103-BS1

SW-846 8270D

Qualifications:

RL-12

Elevated reporting limit due to matrix interference.

Analyte & Samples(s) Qualified:

16C1301-02[B-1 0-2']

SW-846 9045C

Qualifications:

H-03

Sample received after recommended holding time was exceeded.

Analyte & Samples(s) Qualified:

pH
16C1301-04[B-1 0-3.5']

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SW-846 6010C/D SW-846 6020A/B

For NC, Metals methods SW-846 6010D and SW-846 6020B are followed, and for all other states methods SW-846 6010C and SW-846 6020A are followed.

SW-846 8015C

Gasoline Range Organics (2-Methylpentane through 1,2,4-Trimethylbenzene) is quantitated against a calibration made with an unleaded gasoline composite standard.

Diesel Range Organics (C10-C28) is quantitated against a calibration made with a #2 fuel oil standard.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Project Manager

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Shelton, CT
Sample Description:
Work Order: 16C1301
Date Received: 3/29/2016
Field Sample #: Trip Blank
Sampled: 3/28/2016 10:00
Sample ID: 16C1301-01
Sample Matrix: Trip Blank Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.10	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
Acrylonitrile	ND	0.0060	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
Benzene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
Bromobenzene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
Bromodichloromethane	ND	0.0020	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
Bromoform	ND	0.0020	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
Bromomethane	ND	0.010	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
2-Butanone (MEK)	ND	0.040	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
n-Butylbenzene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
sec-Butylbenzene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
tert-Butylbenzene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
Carbon Disulfide	ND	0.0060	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
Carbon Tetrachloride	ND	0.0020	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
Chlorobenzene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
Chlorodibromomethane	ND	0.0010	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
Chloroethane	ND	0.020	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
Chloroform	ND	0.0040	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
Chloromethane	ND	0.010	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
2-Chlorotoluene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
4-Chlorotoluene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0020	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
1,2-Dibromoethane (EDB)	ND	0.0010	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
Dibromomethane	ND	0.0020	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
1,2-Dichlorobenzene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
1,3-Dichlorobenzene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
1,4-Dichlorobenzene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
trans-1,4-Dichloro-2-butene	ND	0.0040	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.020	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
1,1-Dichloroethane	ND	0.0020	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
1,2-Dichloroethane	ND	0.0020	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
1,1-Dichloroethylene	ND	0.0040	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
cis-1,2-Dichloroethylene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
trans-1,2-Dichloroethylene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
1,2-Dichloropropane	ND	0.0020	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
1,3-Dichloropropane	ND	0.0010	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
2,2-Dichloropropane	ND	0.0020	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
1,1-Dichloropropene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
cis-1,3-Dichloropropene	ND	0.0040	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
trans-1,3-Dichloropropene	ND	0.0010	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
Ethylbenzene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
Hexachlorobutadiene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
2-Hexanone (MBK)	ND	0.020	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
Isopropylbenzene (Cumene)	ND	0.0020	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0020	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF

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Project Location: Shelton, CT
Sample Description:
Work Order: 16C1301
Date Received: 3/29/2016
Field Sample #: Trip Blank
Sampled: 3/28/2016 10:00
Sample ID: 16C1301-01
Sample Matrix: Trip Blank Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Methyl tert-Butyl Ether (MTBE)	ND	0.0040	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
Methylene Chloride	ND	0.020	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.020	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
Naphthalene	ND	0.0040	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
n-Propylbenzene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
Styrene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
1,1,1,2-Tetrachloroethane	ND	0.0020	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
1,1,2,2-Tetrachloroethane	ND	0.0010	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
Tetrachloroethylene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
Tetrahydrofuran	ND	0.010	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
Toluene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
1,2,3-Trichlorobenzene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
1,2,4-Trichlorobenzene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
1,1,1-Trichloroethane	ND	0.0020	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
1,1,2-Trichloroethane	ND	0.0020	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
Trichloroethylene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
Trichlorofluoromethane (Freon 11)	ND	0.010	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
1,2,3-Trichloropropane	ND	0.0020	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.010	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
1,2,4-Trimethylbenzene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
1,3,5-Trimethylbenzene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
Vinyl Chloride	ND	0.010	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
m+p Xylene	ND	0.0040	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF
o-Xylene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	3/30/16	3/30/16 13:50	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	103	70-130		3/30/16 13:50
Toluene-d8	97.8	70-130		3/30/16 13:50
4-Bromofluorobenzene	96.2	70-130		3/30/16 13:50

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Project Location: Shelton, CT
Sample Description:
Work Order: 16C1301
Date Received: 3/29/2016
Field Sample #: B-1 0-2'
Sampled: 3/28/2016 14:30
Sample ID: 16C1301-02
Sample Matrix: Soil
Sample Flags: RL-12

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.44	mg/Kg dry	2		SW-846 8270D	3/29/16	3/30/16 18:06	BGL
Acenaphthylene	0.58	0.44	mg/Kg dry	2		SW-846 8270D	3/29/16	3/30/16 18:06	BGL
Anthracene	ND	0.44	mg/Kg dry	2		SW-846 8270D	3/29/16	3/30/16 18:06	BGL
Benzo(a)anthracene	1.5	0.44	mg/Kg dry	2		SW-846 8270D	3/29/16	3/30/16 18:06	BGL
Benzo(a)pyrene	1.6	0.44	mg/Kg dry	2		SW-846 8270D	3/29/16	3/30/16 18:06	BGL
Benzo(b)fluoranthene	2.3	0.44	mg/Kg dry	2		SW-846 8270D	3/29/16	3/30/16 18:06	BGL
Benzo(g,h,i)perylene	1.1	0.44	mg/Kg dry	2		SW-846 8270D	3/29/16	3/30/16 18:06	BGL
Benzo(k)fluoranthene	0.85	0.44	mg/Kg dry	2		SW-846 8270D	3/29/16	3/30/16 18:06	BGL
Chrysene	1.7	0.44	mg/Kg dry	2		SW-846 8270D	3/29/16	3/30/16 18:06	BGL
Dibenz(a,h)anthracene	ND	0.44	mg/Kg dry	2		SW-846 8270D	3/29/16	3/30/16 18:06	BGL
Fluoranthene	3.4	0.44	mg/Kg dry	2		SW-846 8270D	3/29/16	3/30/16 18:06	BGL
Fluorene	ND	0.44	mg/Kg dry	2		SW-846 8270D	3/29/16	3/30/16 18:06	BGL
Indeno(1,2,3-cd)pyrene	1.1	0.44	mg/Kg dry	2		SW-846 8270D	3/29/16	3/30/16 18:06	BGL
2-Methylnaphthalene	ND	0.44	mg/Kg dry	2		SW-846 8270D	3/29/16	3/30/16 18:06	BGL
Naphthalene	ND	0.44	mg/Kg dry	2		SW-846 8270D	3/29/16	3/30/16 18:06	BGL
Phenanthrene	1.4	0.44	mg/Kg dry	2		SW-846 8270D	3/29/16	3/30/16 18:06	BGL
Pyrene	2.7	0.44	mg/Kg dry	2		SW-846 8270D	3/29/16	3/30/16 18:06	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	64.5	30-130		3/30/16 18:06
2-Fluorobiphenyl	55.6	30-130		3/30/16 18:06
p-Terphenyl-d14	54.8	30-130		3/30/16 18:06

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Project Location: Shelton, CT
Sample Description:
Work Order: 16C1301

Date Received: 3/29/2016

Field Sample #: B-1 0-2'
Sampled: 3/28/2016 14:30

Sample ID: 16C1301-02

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	77.8		% Wt	1		SM 2540G	3/30/16	3/31/16 8:31	MRL

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Shelton, CT
Sample Description:
Work Order: 16C1301
Date Received: 3/29/2016
Field Sample #: B-1 0-2'
Sampled: 3/28/2016 14:30
Sample ID: 16C1301-02
Sample Matrix: Soil

SPLP - Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
Acrylonitrile	ND	5.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
Benzene	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
Bromobenzene	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
Bromodichloromethane	ND	0.50	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
Bromoform	ND	2.0	µg/L	1	L-03, V-05	SW-846 8260C	4/7/16	4/7/16 17:43	MFF
Bromomethane	ND	2.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
2-Butanone (MEK)	ND	20	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
n-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
sec-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
tert-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
Carbon Disulfide	ND	4.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
Carbon Tetrachloride	ND	5.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
Chlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
Chloroethane	ND	2.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
Chloroform	ND	2.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
Chloromethane	ND	2.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
2-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
4-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L	1	L-03, V-05	SW-846 8260C	4/7/16	4/7/16 17:43	MFF
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
Dibromomethane	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
1,2-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
1,3-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
1,4-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
1,1-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
1,2-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
1,1-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
cis-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
1,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
2,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
1,1-Dichloropropene	ND	2.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
cis-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
trans-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
Ethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
Hexachlorobutadiene	ND	0.50	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
2-Hexanone (MBK)	ND	10	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
Isopropylbenzene (Cumene)	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Shelton, CT
Sample Description:
Work Order: 16C1301
Date Received: 3/29/2016
Field Sample #: B-1 0-2'
Sampled: 3/28/2016 14:30
Sample ID: 16C1301-02
Sample Matrix: Soil

SPLP - Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
Methylene Chloride	ND	5.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
Naphthalene	60	2.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
n-Propylbenzene	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
Styrene	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
Tetrachloroethylene	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
Tetrahydrofuran	ND	10	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
Toluene	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
1,2,3-Trichlorobenzene	ND	5.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
1,1,1-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
1,1,2-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
Trichloroethylene	1.4	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
1,2,3-Trichloropropane	ND	2.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
Vinyl Chloride	ND	2.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF
o-Xylene	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 17:43	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	104	70-130		4/7/16 17:43
Toluene-d8	103	70-130		4/7/16 17:43
4-Bromofluorobenzene	94.0	70-130		4/7/16 17:43

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Shelton, CT
Sample Description:
Work Order: 16C1301
Date Received: 3/29/2016
Field Sample #: B-1 2-3.5'
Sampled: 3/28/2016 14:40
Sample ID: 16C1301-03
Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.18	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
Acrylonitrile	ND	0.011	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
Benzene	ND	0.0037	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
Bromobenzene	ND	0.0037	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
Bromodichloromethane	ND	0.0037	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
Bromoform	ND	0.0037	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
Bromomethane	ND	0.018	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
2-Butanone (MEK)	ND	0.074	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
n-Butylbenzene	ND	0.0037	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
sec-Butylbenzene	ND	0.0037	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
tert-Butylbenzene	ND	0.0037	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
Carbon Disulfide	ND	0.011	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
Carbon Tetrachloride	ND	0.0037	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
Chlorobenzene	ND	0.0037	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
Chlorodibromomethane	ND	0.0018	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
Chloroethane	ND	0.037	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
Chloroform	0.038	0.0074	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
Chloromethane	ND	0.018	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
2-Chlorotoluene	ND	0.0037	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
4-Chlorotoluene	ND	0.0037	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0037	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
1,2-Dibromoethane (EDB)	ND	0.0018	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
Dibromomethane	ND	0.0037	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
1,2-Dichlorobenzene	ND	0.0037	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
1,3-Dichlorobenzene	ND	0.0037	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
1,4-Dichlorobenzene	ND	0.0037	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
trans-1,4-Dichloro-2-butene	ND	0.0074	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.037	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
1,1-Dichloroethane	ND	0.0037	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
1,2-Dichloroethane	ND	0.0037	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
1,1-Dichloroethylene	ND	0.0074	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
cis-1,2-Dichloroethylene	ND	0.0037	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
trans-1,2-Dichloroethylene	ND	0.0037	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
1,2-Dichloropropane	ND	0.0037	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
1,3-Dichloropropane	ND	0.0018	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
2,2-Dichloropropane	ND	0.0037	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
1,1-Dichloropropene	ND	0.0037	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
cis-1,3-Dichloropropene	ND	0.0074	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
trans-1,3-Dichloropropene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
Ethylbenzene	ND	0.0037	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
Hexachlorobutadiene	ND	0.0037	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
2-Hexanone (MBK)	ND	0.037	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
Isopropylbenzene (Cumene)	ND	0.0037	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0037	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Shelton, CT
Sample Description:
Work Order: 16C1301
Date Received: 3/29/2016
Field Sample #: B-1 2-3.5'
Sampled: 3/28/2016 14:40
Sample ID: 16C1301-03
Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Methyl tert-Butyl Ether (MTBE)	ND	0.0074	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
Methylene Chloride	ND	0.037	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.037	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
Naphthalene	ND	0.0074	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
n-Propylbenzene	ND	0.0037	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
Styrene	ND	0.0037	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
1,1,1,2-Tetrachloroethane	ND	0.0037	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
1,1,2,2-Tetrachloroethane	ND	0.0018	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
Tetrachloroethylene	ND	0.0037	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
Tetrahydrofuran	ND	0.018	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
Toluene	ND	0.0037	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
1,2,3-Trichlorobenzene	ND	0.0037	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
1,2,4-Trichlorobenzene	ND	0.0037	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
1,1,1-Trichloroethane	ND	0.0037	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
1,1,2-Trichloroethane	ND	0.0037	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
Trichloroethylene	0.12	0.0037	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
Trichlorofluoromethane (Freon 11)	ND	0.018	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
1,2,3-Trichloropropane	ND	0.0037	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.018	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
1,2,4-Trimethylbenzene	ND	0.0037	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
1,3,5-Trimethylbenzene	ND	0.0037	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
Vinyl Chloride	ND	0.018	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
m+p Xylene	ND	0.0074	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF
o-Xylene	ND	0.0037	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:18	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	107	70-130		3/30/16 14:18
Toluene-d8	97.2	70-130		3/30/16 14:18
4-Bromofluorobenzene	95.6	70-130		3/30/16 14:18

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Shelton, CT
Sample Description:
Work Order: 16C1301

Date Received: 3/29/2016

Field Sample #: B-1 2-3.5'
Sampled: 3/28/2016 14:40

Sample ID: 16C1301-03

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.24	mg/Kg dry	1		SW-846 8270D	3/29/16	3/30/16 18:35	BGL
Acenaphthylene	0.37	0.24	mg/Kg dry	1		SW-846 8270D	3/29/16	3/30/16 18:35	BGL
Anthracene	0.59	0.24	mg/Kg dry	1		SW-846 8270D	3/29/16	3/30/16 18:35	BGL
Benzo(a)anthracene	0.88	0.24	mg/Kg dry	1		SW-846 8270D	3/29/16	3/30/16 18:35	BGL
Benzo(a)pyrene	0.84	0.24	mg/Kg dry	1		SW-846 8270D	3/29/16	3/30/16 18:35	BGL
Benzo(b)fluoranthene	1.1	0.24	mg/Kg dry	1		SW-846 8270D	3/29/16	3/30/16 18:35	BGL
Benzo(g,h,i)perylene	0.40	0.24	mg/Kg dry	1		SW-846 8270D	3/29/16	3/30/16 18:35	BGL
Benzo(k)fluoranthene	0.42	0.24	mg/Kg dry	1		SW-846 8270D	3/29/16	3/30/16 18:35	BGL
Chrysene	0.80	0.24	mg/Kg dry	1		SW-846 8270D	3/29/16	3/30/16 18:35	BGL
Dibenz(a,h)anthracene	ND	0.24	mg/Kg dry	1		SW-846 8270D	3/29/16	3/30/16 18:35	BGL
Fluoranthene	2.2	0.24	mg/Kg dry	1		SW-846 8270D	3/29/16	3/30/16 18:35	BGL
Fluorene	0.48	0.24	mg/Kg dry	1		SW-846 8270D	3/29/16	3/30/16 18:35	BGL
Indeno(1,2,3-cd)pyrene	0.47	0.24	mg/Kg dry	1		SW-846 8270D	3/29/16	3/30/16 18:35	BGL
2-Methylnaphthalene	0.53	0.24	mg/Kg dry	1		SW-846 8270D	3/29/16	3/30/16 18:35	BGL
Naphthalene	0.83	0.24	mg/Kg dry	1		SW-846 8270D	3/29/16	3/30/16 18:35	BGL
Phenanthrene	2.0	0.24	mg/Kg dry	1		SW-846 8270D	3/29/16	3/30/16 18:35	BGL
Pyrene	ND	0.24	mg/Kg dry	1		SW-846 8270D	3/29/16	3/30/16 18:35	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	77.6	30-130		3/30/16 18:35
2-Fluorobiphenyl	63.0	30-130		3/30/16 18:35
p-Terphenyl-d14	64.2	30-130		3/30/16 18:35

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Shelton, CT
Sample Description:
Work Order: 16C1301
Date Received: 3/29/2016
Field Sample #: B-1 2-3.5'
Sampled: 3/28/2016 14:40
Sample ID: 16C1301-03
Sample Matrix: Soil

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.14	mg/Kg dry	5		SW-846 8082A	3/31/16	4/1/16 16:56	JMB
Aroclor-1221 [1]	ND	0.14	mg/Kg dry	5		SW-846 8082A	3/31/16	4/1/16 16:56	JMB
Aroclor-1232 [1]	ND	0.14	mg/Kg dry	5		SW-846 8082A	3/31/16	4/1/16 16:56	JMB
Aroclor-1242 [1]	ND	0.14	mg/Kg dry	5		SW-846 8082A	3/31/16	4/1/16 16:56	JMB
Aroclor-1248 [1]	ND	0.14	mg/Kg dry	5		SW-846 8082A	3/31/16	4/1/16 16:56	JMB
Aroclor-1254 [1]	ND	0.14	mg/Kg dry	5		SW-846 8082A	3/31/16	4/1/16 16:56	JMB
Aroclor-1260 [1]	ND	0.14	mg/Kg dry	5		SW-846 8082A	3/31/16	4/1/16 16:56	JMB
Aroclor-1262 [1]	ND	0.14	mg/Kg dry	5		SW-846 8082A	3/31/16	4/1/16 16:56	JMB
Aroclor-1268 [1]	ND	0.14	mg/Kg dry	5		SW-846 8082A	3/31/16	4/1/16 16:56	JMB

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	94.1	30-150		4/1/16 16:56
Decachlorobiphenyl [2]	93.2	30-150		4/1/16 16:56
Tetrachloro-m-xylene [1]	84.6	30-150		4/1/16 16:56
Tetrachloro-m-xylene [2]	85.5	30-150		4/1/16 16:56

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Shelton, CT
Sample Description:
Work Order: 16C1301

Date Received: 3/29/2016

Field Sample #: B-1 2-3.5'
Sampled: 3/28/2016 14:40

Sample ID: 16C1301-03

Sample Matrix: Soil

Petroleum Hydrocarbons Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
CT ETPH	130	69	mg/Kg dry	5		CTDEP ETPH	3/31/16	4/10/16 20:33	SCS

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
o-Terphenyl	52.4	50-150		4/10/16 20:33

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Shelton, CT
Sample Description:
Work Order: 16C1301

Date Received: 3/29/2016

Field Sample #: B-1 2-3.5'
Sampled: 3/28/2016 14:40

Sample ID: 16C1301-03

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	3.4	mg/Kg dry	1	MS-07	SW-846 6010C-D	3/30/16	3/31/16 14:50	AME
Arsenic	ND	3.4	mg/Kg dry	1	MS-07	SW-846 6010C-D	3/30/16	3/31/16 14:50	AME
Barium	300	3.4	mg/Kg dry	1	MS-19	SW-846 6010C-D	3/30/16	3/31/16 17:13	AME
Beryllium	2.4	0.34	mg/Kg dry	1		SW-846 6010C-D	3/30/16	3/31/16 17:13	AME
Cadmium	1.2	0.34	mg/Kg dry	1		SW-846 6010C-D	3/30/16	3/31/16 17:13	AME
Chromium	23	0.69	mg/Kg dry	1		SW-846 6010C-D	3/30/16	3/31/16 17:13	AME
Copper	600	0.69	mg/Kg dry	1	MS-19, R-02	SW-846 6010C-D	3/30/16	3/31/16 17:13	AME
Lead	160	1.0	mg/Kg dry	1		SW-846 6010C-D	3/30/16	4/4/16 15:09	AME
Mercury	0.060	0.035	mg/Kg dry	1		SW-846 7471B	3/30/16	3/31/16 11:53	TGW
Nickel	29	0.69	mg/Kg dry	1		SW-846 6010C-D	3/30/16	3/31/16 17:13	AME
Selenium	ND	6.9	mg/Kg dry	1	MS-07	SW-846 6010C-D	3/30/16	3/31/16 14:50	AME
Silver	ND	0.69	mg/Kg dry	1		SW-846 6010C-D	3/30/16	3/31/16 17:13	AME
Thallium	ND	3.4	mg/Kg dry	1		SW-846 6010C-D	3/30/16	3/31/16 17:13	AME
Vanadium	27	1.4	mg/Kg dry	1		SW-846 6010C-D	3/30/16	3/31/16 17:13	AME
Zinc	160	1.4	mg/Kg dry	1	B, B-07, MS-19, R-02	SW-846 6010C-D	3/30/16	3/31/16 17:13	AME

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Shelton, CT
Sample Description:
Work Order: 16C1301

Date Received: 3/29/2016

Field Sample #: B-1 2-3.5'
Sampled: 3/28/2016 14:40

Sample ID: 16C1301-03

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	72.3		% Wt	1		SM 2540G	3/30/16	3/31/16 8:31	MRL

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Shelton, CT
Sample Description:
Work Order: 16C1301

Date Received: 3/29/2016

Field Sample #: B-1 2-3.5'
Sampled: 3/28/2016 14:40

Sample ID: 16C1301-03

Sample Matrix: Soil

SPLP - Metals Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	5.0	µg/L	5		SW-846 6020A-B	3/31/16	4/2/16 8:50	WSD
Arsenic	ND	2.0	µg/L	5		SW-846 6020A-B	3/31/16	4/2/16 8:50	WSD
Barium	ND	50	µg/L	5		SW-846 6020A-B	3/31/16	4/2/16 8:50	WSD
Beryllium	ND	2.0	µg/L	5		SW-846 6020A-B	3/31/16	4/2/16 8:50	WSD
Cadmium	ND	2.5	µg/L	5		SW-846 6020A-B	3/31/16	4/2/16 8:50	WSD
Chromium	ND	5.0	µg/L	5		SW-846 6020A-B	3/31/16	4/2/16 8:50	WSD
Copper	ND	25	µg/L	5		SW-846 6020A-B	3/31/16	4/2/16 8:50	WSD
Lead	7.3	5.0	µg/L	5		SW-846 6020A-B	3/31/16	4/2/16 8:50	WSD
Mercury	ND	0.00010	mg/L	1		SW-846 7470A	3/31/16	4/1/16 10:10	TGW
Nickel	ND	25	µg/L	5		SW-846 6020A-B	3/31/16	4/2/16 8:50	WSD
Selenium	ND	25	µg/L	5		SW-846 6020A-B	3/31/16	4/2/16 8:50	WSD
Silver	ND	2.5	µg/L	5		SW-846 6020A-B	3/31/16	4/2/16 8:50	WSD
Thallium	ND	1.0	µg/L	5		SW-846 6020A-B	3/31/16	4/2/16 8:50	WSD
Vanadium	ND	25	µg/L	5		SW-846 6020A-B	3/31/16	4/2/16 8:50	WSD
Zinc	ND	50	µg/L	5		SW-846 6020A-B	3/31/16	4/2/16 8:50	WSD

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Shelton, CT
Sample Description:
Work Order: 16C1301
Date Received: 3/29/2016
Field Sample #: B-1 0-3.5'
Sampled: 3/28/2016 14:50
Sample ID: 16C1301-04
Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.16	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
Acrylonitrile	ND	0.0098	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
Benzene	ND	0.0033	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
Bromobenzene	ND	0.0033	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
Bromodichloromethane	ND	0.0033	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
Bromoform	ND	0.0033	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
Bromomethane	ND	0.016	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
2-Butanone (MEK)	ND	0.065	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
n-Butylbenzene	ND	0.0033	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
sec-Butylbenzene	ND	0.0033	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
tert-Butylbenzene	ND	0.0033	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
Carbon Disulfide	ND	0.0098	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
Carbon Tetrachloride	ND	0.0033	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
Chlorobenzene	ND	0.0033	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
Chlorodibromomethane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
Chloroethane	ND	0.033	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
Chloroform	0.016	0.0065	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
Chloromethane	ND	0.016	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
2-Chlorotoluene	ND	0.0033	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
4-Chlorotoluene	ND	0.0033	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0033	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
1,2-Dibromoethane (EDB)	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
Dibromomethane	ND	0.0033	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
1,2-Dichlorobenzene	ND	0.0033	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
1,3-Dichlorobenzene	ND	0.0033	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
1,4-Dichlorobenzene	ND	0.0033	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
trans-1,4-Dichloro-2-butene	ND	0.0065	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.033	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
1,1-Dichloroethane	ND	0.0033	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
1,2-Dichloroethane	ND	0.0033	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
1,1-Dichloroethylene	ND	0.0065	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
cis-1,2-Dichloroethylene	ND	0.0033	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
trans-1,2-Dichloroethylene	ND	0.0033	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
1,2-Dichloropropane	ND	0.0033	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
1,3-Dichloropropane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
2,2-Dichloropropane	ND	0.0033	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
1,1-Dichloropropene	ND	0.0033	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
cis-1,3-Dichloropropene	ND	0.0065	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
trans-1,3-Dichloropropene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
Ethylbenzene	ND	0.0033	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
Hexachlorobutadiene	ND	0.0033	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
2-Hexanone (MBK)	ND	0.033	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
Isopropylbenzene (Cumene)	ND	0.0033	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0033	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Shelton, CT
Sample Description:
Work Order: 16C1301
Date Received: 3/29/2016
Field Sample #: B-1 0-3.5'
Sampled: 3/28/2016 14:50
Sample ID: 16C1301-04
Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Methyl tert-Butyl Ether (MTBE)	ND	0.0065	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
Methylene Chloride	ND	0.033	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.033	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
Naphthalene	ND	0.0065	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
n-Propylbenzene	ND	0.0033	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
Styrene	ND	0.0033	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
1,1,1,2-Tetrachloroethane	ND	0.0033	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
1,1,2,2-Tetrachloroethane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
Tetrachloroethylene	ND	0.0033	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
Tetrahydrofuran	ND	0.016	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
Toluene	ND	0.0033	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
1,2,3-Trichlorobenzene	ND	0.0033	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
1,2,4-Trichlorobenzene	ND	0.0033	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
1,1,1-Trichloroethane	ND	0.0033	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
1,1,2-Trichloroethane	ND	0.0033	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
Trichloroethylene	0.056	0.0033	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
Trichlorofluoromethane (Freon 11)	ND	0.016	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
1,2,3-Trichloropropane	ND	0.0033	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.016	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
1,2,4-Trimethylbenzene	ND	0.0033	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
1,3,5-Trimethylbenzene	ND	0.0033	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
Vinyl Chloride	ND	0.016	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
m+p Xylene	ND	0.0065	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF
o-Xylene	ND	0.0033	mg/Kg dry	1		SW-846 8260C	3/30/16	3/30/16 14:46	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	107	70-130		3/30/16 14:46
Toluene-d8	96.5	70-130		3/30/16 14:46
4-Bromofluorobenzene	92.4	70-130		3/30/16 14:46

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Shelton, CT
Sample Description:
Work Order: 16C1301
Date Received: 3/29/2016
Field Sample #: B-1 0-3.5'
Sampled: 3/28/2016 14:50
Sample ID: 16C1301-04
Sample Matrix: Soil

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.13	mg/Kg dry	5		SW-846 8082A	3/31/16	3/31/16 20:05	JMB
Aroclor-1221 [1]	ND	0.13	mg/Kg dry	5		SW-846 8082A	3/31/16	3/31/16 20:05	JMB
Aroclor-1232 [1]	ND	0.13	mg/Kg dry	5		SW-846 8082A	3/31/16	3/31/16 20:05	JMB
Aroclor-1242 [1]	ND	0.13	mg/Kg dry	5		SW-846 8082A	3/31/16	3/31/16 20:05	JMB
Aroclor-1248 [1]	ND	0.13	mg/Kg dry	5		SW-846 8082A	3/31/16	3/31/16 20:05	JMB
Aroclor-1254 [1]	ND	0.13	mg/Kg dry	5		SW-846 8082A	3/31/16	3/31/16 20:05	JMB
Aroclor-1260 [1]	ND	0.13	mg/Kg dry	5		SW-846 8082A	3/31/16	3/31/16 20:05	JMB
Aroclor-1262 [1]	ND	0.13	mg/Kg dry	5		SW-846 8082A	3/31/16	3/31/16 20:05	JMB
Aroclor-1268 [1]	ND	0.13	mg/Kg dry	5		SW-846 8082A	3/31/16	3/31/16 20:05	JMB

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	58.8	30-150		3/31/16 20:05
Decachlorobiphenyl [2]	59.6	30-150		3/31/16 20:05
Tetrachloro-m-xylene [1]	57.8	30-150		3/31/16 20:05
Tetrachloro-m-xylene [2]	59.1	30-150		3/31/16 20:05

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Shelton, CT
Sample Description:
Work Order: 16C1301
Date Received: 3/29/2016
Field Sample #: B-1 0-3.5'
Sampled: 3/28/2016 14:50
Sample ID: 16C1301-04
Sample Matrix: Soil

Petroleum Hydrocarbons Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Gasoline Range Organics (GRO)	1.7	1.3	mg/Kg dry	1		SW-846 8015C	4/4/16	4/8/16 14:52	EEH
Diesel Range Organics	160	51	mg/Kg dry	5		SW-846 8015C	3/29/16	3/30/16 10:58	SCS

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1-Chloro-3-fluorobenzene	78.0	70-130		4/8/16 14:52
o-Terphenyl	61.9	40-140		3/30/16 10:58

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Shelton, CT
Sample Description:
Work Order: 16C1301

Date Received: 3/29/2016

Field Sample #: B-1 0-3.5'
Sampled: 3/28/2016 14:50

Sample ID: 16C1301-04

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	14	3.1	mg/Kg dry	1		SW-846 6010C-D	5/10/16	5/12/16 18:30	AME
Arsenic	ND	3.1	mg/Kg dry	1		SW-846 6010C-D	5/10/16	5/12/16 18:30	AME
Barium	160	3.1	mg/Kg dry	1		SW-846 6010C-D	5/10/16	5/12/16 18:30	AME
Beryllium	0.72	0.31	mg/Kg dry	1		SW-846 6010C-D	5/10/16	5/12/16 18:30	AME
Cadmium	1.8	0.31	mg/Kg dry	1		SW-846 6010C-D	5/10/16	5/12/16 18:30	AME
Chromium	78	0.61	mg/Kg dry	1		SW-846 6010C-D	5/10/16	5/12/16 18:30	AME
Copper	530	0.61	mg/Kg dry	1		SW-846 6010C-D	5/10/16	5/12/16 18:30	AME
Lead	390	0.92	mg/Kg dry	1		SW-846 6010C-D	5/10/16	5/12/16 18:30	AME
Mercury	0.32	0.031	mg/Kg dry	1		SW-846 7471B	3/30/16	3/31/16 11:54	TGW
Nickel	61	0.61	mg/Kg dry	1		SW-846 6010C-D	5/10/16	5/12/16 18:30	AME
Selenium	ND	6.1	mg/Kg dry	1		SW-846 6010C-D	5/10/16	5/12/16 18:30	AME
Silver	ND	0.61	mg/Kg dry	1		SW-846 6010C-D	5/10/16	5/12/16 18:30	AME
Thallium	ND	3.1	mg/Kg dry	1		SW-846 6010C-D	5/10/16	5/12/16 18:30	AME
Vanadium	50	1.2	mg/Kg dry	1		SW-846 6010C-D	5/10/16	5/12/16 18:30	AME
Zinc	290	1.2	mg/Kg dry	1		SW-846 6010C-D	5/10/16	5/12/16 18:30	AME

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Shelton, CT
Sample Description:
Work Order: 16C1301

Date Received: 3/29/2016

Field Sample #: B-1 0-3.5'
Sampled: 3/28/2016 14:50

Sample ID: 16C1301-04

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Ignitability	Absent		present/absent	1		SW-846 1030	3/31/16	3/31/16 10:55	AG
pH @18.4°C	7.1		pH Units	1	H-03	SW-846 9045C	3/30/16	3/30/16 8:25	LL
Reactive Cyanide	ND	4.0	mg/Kg	1		SW-846 9014	4/6/16	4/6/16 12:20	AG
Reactive Sulfide	ND	20	mg/Kg	1		SW-846 9030A	4/6/16	4/6/16 12:20	AG
% Solids	79.8		% Wt	1		SM 2540G	3/30/16	3/31/16 8:31	MRL

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Shelton, CT
Sample Description:
Work Order: 16C1301
Date Received: 3/29/2016
Field Sample #: B-2 0-1.5'
Sampled: 3/28/2016 15:20
Sample ID: 16C1301-05
Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	60.6		% Wt	1		SM 2540G	3/30/16	3/31/16 8:31	MRL

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Shelton, CT
Sample Description:
Work Order: 16C1301
Date Received: 3/29/2016
Field Sample #: B-2 0-1.5'
Sampled: 3/28/2016 15:20
Sample ID: 16C1301-05
Sample Matrix: Soil

SPLP - Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
Acrylonitrile	ND	5.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
Benzene	ND	1.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
Bromobenzene	ND	1.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
Bromodichloromethane	ND	0.50	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
Bromoform	ND	1.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
Bromomethane	ND	2.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
2-Butanone (MEK)	ND	20	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
n-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
sec-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
tert-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
Carbon Disulfide	ND	4.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
Carbon Tetrachloride	ND	5.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
Chlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
Chloroethane	ND	2.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
Chloroform	ND	2.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
Chloromethane	ND	2.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
2-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
4-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
Dibromomethane	ND	1.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
1,2-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
1,3-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
1,4-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
1,1-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
1,2-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
1,1-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
cis-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
1,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
2,2-Dichloropropane	ND	1.0	µg/L	1	L-03, V-05	SW-846 8260C	4/8/16	4/9/16 13:44	EEH
1,1-Dichloropropene	ND	2.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
cis-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
trans-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
Ethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
Hexachlorobutadiene	ND	0.50	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
2-Hexanone (MBK)	ND	10	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
Isopropylbenzene (Cumene)	ND	1.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Shelton, CT
Sample Description:
Work Order: 16C1301
Date Received: 3/29/2016
Field Sample #: B-2 0-1.5'
Sampled: 3/28/2016 15:20
Sample ID: 16C1301-05
Sample Matrix: Soil

SPLP - Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
Methylene Chloride	ND	5.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
Naphthalene	ND	2.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
n-Propylbenzene	ND	1.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
Styrene	ND	1.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
Tetrachloroethylene	ND	1.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
Tetrahydrofuran	ND	10	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
Toluene	ND	1.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
1,2,3-Trichlorobenzene	ND	5.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
1,1,1-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
1,1,2-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
Trichloroethylene	3.3	1.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
1,2,3-Trichloropropane	ND	2.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
Vinyl Chloride	ND	2.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH
o-Xylene	ND	1.0	µg/L	1		SW-846 8260C	4/8/16	4/9/16 13:44	EEH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	96.0	70-130		4/9/16 13:44
Toluene-d8	100	70-130		4/9/16 13:44
4-Bromofluorobenzene	94.8	70-130		4/9/16 13:44

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Shelton, CT
Sample Description:
Work Order: 16C1301
Date Received: 3/29/2016
Field Sample #: B-2 0-1.5'
Sampled: 3/28/2016 15:20
Sample ID: 16C1301-05
Sample Matrix: Soil

SPLP - Semivolatile Organic Compounds by GC

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
CT ETPH	0.85	0.075	mg/L	1		CTDEP ETPH	4/5/16	4/6/16 12:04	SCS

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
o-Terphenyl	80.8	50-150		4/6/16 12:04

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Shelton, CT
Sample Description:
Work Order: 16C1301
Date Received: 3/29/2016
Field Sample #: B-2 0-1.5'
Sampled: 3/28/2016 15:20
Sample ID: 16C1301-05
Sample Matrix: Soil

SPLP - Metals Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	5.0	µg/L	5		SW-846 6020A-B	3/31/16	4/2/16 8:53	WSD
Arsenic	3.4	2.0	µg/L	5		SW-846 6020A-B	3/31/16	4/2/16 8:53	WSD
Barium	ND	50	µg/L	5		SW-846 6020A-B	3/31/16	4/2/16 8:53	WSD
Beryllium	ND	2.0	µg/L	5		SW-846 6020A-B	3/31/16	4/2/16 8:53	WSD
Cadmium	ND	2.5	µg/L	5		SW-846 6020A-B	3/31/16	4/2/16 8:53	WSD
Chromium	ND	5.0	µg/L	5		SW-846 6020A-B	3/31/16	4/2/16 8:53	WSD
Copper	ND	25	µg/L	5		SW-846 6020A-B	3/31/16	4/2/16 8:53	WSD
Lead	7.3	5.0	µg/L	5		SW-846 6020A-B	3/31/16	4/2/16 8:53	WSD
Mercury	ND	0.00010	mg/L	1		SW-846 7470A	3/31/16	4/1/16 10:12	TGW
Nickel	ND	25	µg/L	5		SW-846 6020A-B	3/31/16	4/2/16 8:53	WSD
Selenium	ND	25	µg/L	5		SW-846 6020A-B	3/31/16	4/2/16 8:53	WSD
Silver	ND	2.5	µg/L	5		SW-846 6020A-B	3/31/16	4/2/16 8:53	WSD
Thallium	ND	1.0	µg/L	5		SW-846 6020A-B	3/31/16	4/2/16 8:53	WSD
Vanadium	ND	25	µg/L	5		SW-846 6020A-B	3/31/16	4/2/16 8:53	WSD
Zinc	ND	50	µg/L	5		SW-846 6020A-B	3/31/16	4/2/16 8:53	WSD

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Shelton, CT
Sample Description:
Work Order: 16C1301
Date Received: 3/29/2016
Field Sample #: B-3 0-2'
Sampled: 3/28/2016 15:40
Sample ID: 16C1301-06
Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	71.4		% Wt	1		SM 2540G	3/30/16	3/31/16 8:31	MRL

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Shelton, CT
Sample Description:
Work Order: 16C1301
Date Received: 3/29/2016
Field Sample #: B-3 0-2'
Sampled: 3/28/2016 15:40
Sample ID: 16C1301-06
Sample Matrix: Soil

SPLP - Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
Acrylonitrile	ND	5.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
Benzene	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
Bromobenzene	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
Bromodichloromethane	ND	0.50	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
Bromoform	ND	2.0	µg/L	1	L-03, V-05	SW-846 8260C	4/7/16	4/7/16 18:44	MFF
Bromomethane	ND	2.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
2-Butanone (MEK)	ND	20	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
n-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
sec-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
tert-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
Carbon Disulfide	ND	4.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
Carbon Tetrachloride	ND	5.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
Chlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
Chloroethane	ND	2.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
Chloroform	ND	2.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
Chloromethane	ND	2.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
2-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
4-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L	1	L-03, V-05	SW-846 8260C	4/7/16	4/7/16 18:44	MFF
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
Dibromomethane	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
1,2-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
1,3-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
1,4-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
1,1-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
1,2-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
1,1-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
cis-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
1,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
2,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
1,1-Dichloropropene	ND	2.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
cis-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
trans-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
Ethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
Hexachlorobutadiene	ND	0.50	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
2-Hexanone (MBK)	ND	10	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
Isopropylbenzene (Cumene)	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Shelton, CT
Sample Description:
Work Order: 16C1301
Date Received: 3/29/2016
Field Sample #: B-3 0-2'
Sampled: 3/28/2016 15:40
Sample ID: 16C1301-06
Sample Matrix: Soil

SPLP - Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
Methylene Chloride	ND	5.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
Naphthalene	ND	2.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
n-Propylbenzene	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
Styrene	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
Tetrachloroethylene	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
Tetrahydrofuran	ND	10	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
Toluene	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
1,2,3-Trichlorobenzene	ND	5.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
1,1,1-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
1,1,2-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
Trichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
1,2,3-Trichloropropane	ND	2.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
Vinyl Chloride	ND	2.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF
o-Xylene	ND	1.0	µg/L	1		SW-846 8260C	4/7/16	4/7/16 18:44	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	104	70-130		4/7/16 18:44
Toluene-d8	105	70-130		4/7/16 18:44
4-Bromofluorobenzene	94.9	70-130		4/7/16 18:44

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Shelton, CT
Sample Description:
Work Order: 16C1301
Date Received: 3/29/2016
Field Sample #: B-3 0-2'
Sampled: 3/28/2016 15:40
Sample ID: 16C1301-06
Sample Matrix: Soil

SPLP - Metals Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	5.0	µg/L	5		SW-846 6020A-B	3/31/16	4/2/16 8:56	WSD
Arsenic	3.5	2.0	µg/L	5		SW-846 6020A-B	3/31/16	4/2/16 8:56	WSD
Barium	ND	50	µg/L	5		SW-846 6020A-B	3/31/16	4/2/16 8:56	WSD
Beryllium	ND	2.0	µg/L	5		SW-846 6020A-B	3/31/16	4/2/16 8:56	WSD
Cadmium	ND	2.5	µg/L	5		SW-846 6020A-B	3/31/16	4/2/16 8:56	WSD
Chromium	10	5.0	µg/L	5		SW-846 6020A-B	3/31/16	4/2/16 8:56	WSD
Copper	41	25	µg/L	5		SW-846 6020A-B	3/31/16	4/2/16 8:56	WSD
Lead	73	5.0	µg/L	5		SW-846 6020A-B	3/31/16	4/2/16 8:56	WSD
Mercury	ND	0.00010	mg/L	1		SW-846 7470A	3/31/16	4/1/16 10:17	TGW
Nickel	ND	25	µg/L	5		SW-846 6020A-B	3/31/16	4/2/16 8:56	WSD
Selenium	ND	25	µg/L	5		SW-846 6020A-B	3/31/16	4/2/16 8:56	WSD
Silver	ND	2.5	µg/L	5		SW-846 6020A-B	3/31/16	4/2/16 8:56	WSD
Thallium	ND	1.0	µg/L	5		SW-846 6020A-B	3/31/16	4/2/16 8:56	WSD
Vanadium	72	25	µg/L	5		SW-846 6020A-B	3/31/16	4/2/16 8:56	WSD
Zinc	51	50	µg/L	5		SW-846 6020A-B	3/31/16	4/2/16 8:56	WSD

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Sample Extraction Data

Prep Method: SW-846 3546-CTDEP ETPH

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
16C1301-03RE1 [B-1 2-3.5']	B145508	30.0	1.00	03/31/16

Prep Method: SW-846 3510C-CTDEP ETPH **Leachates were extracted on 3/30/2016 per SW-846 1312 in Batch B145445**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16C1301-05RE1 [B-2 0-1.5']	B145929	1000	1.00	04/05/16

Prep Method: % Solids-SM 2540G

Lab Number [Field ID]	Batch	Date
16C1301-02 [B-1 0-2']	B145441	03/30/16
16C1301-03 [B-1 2-3.5']	B145441	03/30/16
16C1301-04 [B-1 0-3.5']	B145441	03/30/16
16C1301-05 [B-2 0-1.5']	B145441	03/30/16
16C1301-06 [B-3 0-2']	B145441	03/30/16

SW-846 1030

Lab Number [Field ID]	Batch	Initial [g]	Date
16C1301-04 [B-1 0-3.5']	B145542	50.0	03/31/16

Prep Method: SW-846 3050B-SW-846 6010C-D

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
16C1301-03 [B-1 2-3.5']	B145428	1.00	50.0	03/30/16

Prep Method: SW-846 3050B-SW-846 6010C-D

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
16C1301-04RE1 [B-1 0-3.5']	B148777	1.02	50.0	05/10/16

Prep Method: SW-846 3010A-SW-846 6020A-B **Leachates were extracted on 3/30/2016 per SW-846 1312 in Batch B145445**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16C1301-03 [B-1 2-3.5']	B145544	50.0	50.0	03/31/16
16C1301-05 [B-2 0-1.5']	B145544	50.0	50.0	03/31/16
16C1301-06 [B-3 0-2']	B145544	50.0	50.0	03/31/16

Prep Method: SW-846 7470A Prep-SW-846 7470A **Leachates were extracted on 3/30/2016 per SW-846 1312 in Batch B145445**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16C1301-03 [B-1 2-3.5']	B145545	6.00	6.00	03/31/16
16C1301-05 [B-2 0-1.5']	B145545	6.00	6.00	03/31/16
16C1301-06 [B-3 0-2']	B145545	6.00	6.00	03/31/16

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Sample Extraction Data

Prep Method: SW-846 7471-SW-846 7471B

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
16C1301-03 [B-1 2-3.5']	B145424	0.594	50.0	03/30/16
16C1301-04 [B-1 0-3.5']	B145424	0.604	50.0	03/30/16

Prep Method: SW-846 3546-SW-846 8015C

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
16C1301-04 [B-1 0-3.5']	B145412	30.5	1.00	03/29/16

Prep Method: SW-846 5035/5030B-SW-846 8015C

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
16C1301-04 [B-1 0-3.5']	B145798	5.80	6.20	04/04/16

Prep Method: SW-846 3546-SW-846 8082A

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
16C1301-04 [B-1 0-3.5']	B145510	10.0	10.0	03/31/16

Prep Method: SW-846 3540C-SW-846 8082A

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
16C1301-03 [B-1 2-3.5']	B145517	10.0	10.0	03/31/16

Prep Method: SW-846 5035-SW-846 8260C

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
16C1301-01 [Trip Blank]	B145478	5.00	10.0	03/30/16
16C1301-03 [B-1 2-3.5']	B145478	3.74	10.0	03/30/16
16C1301-04 [B-1 0-3.5']	B145478	3.83	10.0	03/30/16

Prep Method: SW-846 5030B-SW-846 8260C **Leachates were extracted on 3/30/2016 per SW-846 1312 in Batch B145446**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16C1301-02 [B-1 0-2']	B146103	5.00	5.00	04/07/16
16C1301-06 [B-3 0-2']	B146103	5.00	5.00	04/07/16

Prep Method: SW-846 5030B-SW-846 8260C **Leachates were extracted on 3/30/2016 per SW-846 1312 in Batch B145446**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16C1301-05RE1 [B-2 0-1.5']	B146181	5.00	5.00	04/08/16

Prep Method: SW-846 3546-SW-846 8270D

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
16C1301-02 [B-1 0-2']	B145409	30.0	1.00	03/29/16

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Sample Extraction Data

Prep Method: SW-846 3546-SW-846 8270D

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
16C1301-03 [B-1 2-3.5']	B145409	30.0	1.00	03/29/16

SW-846 9014

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
16C1301-04 [B-1 0-3.5']	B145978	25.3	250	04/06/16

SW-846 9030A

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
16C1301-04 [B-1 0-3.5']	B145979	25.3	250	04/06/16

SW-846 9045C

Lab Number [Field ID]	Batch	Initial [g]		Date
16C1301-04 [B-1 0-3.5']	B145437	20.0		03/30/16

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B145478 - SW-846 5035										
Blank (B145478-BLK1)				Prepared & Analyzed: 03/30/16						
Acetone	ND	0.10	mg/Kg wet							
Acrylonitrile	ND	0.0060	mg/Kg wet							
Benzene	ND	0.0020	mg/Kg wet							
Bromobenzene	ND	0.0020	mg/Kg wet							
Bromodichloromethane	ND	0.0020	mg/Kg wet							
Bromoform	ND	0.0020	mg/Kg wet							
Bromomethane	ND	0.010	mg/Kg wet							
2-Butanone (MEK)	ND	0.040	mg/Kg wet							
n-Butylbenzene	ND	0.0020	mg/Kg wet							
sec-Butylbenzene	ND	0.0020	mg/Kg wet							
tert-Butylbenzene	ND	0.0020	mg/Kg wet							
Carbon Disulfide	ND	0.0060	mg/Kg wet							
Carbon Tetrachloride	ND	0.0020	mg/Kg wet							
Chlorobenzene	ND	0.0020	mg/Kg wet							
Chlorodibromomethane	ND	0.0010	mg/Kg wet							
Chloroethane	ND	0.020	mg/Kg wet							
Chloroform	ND	0.0040	mg/Kg wet							
Chloromethane	ND	0.010	mg/Kg wet							
2-Chlorotoluene	ND	0.0020	mg/Kg wet							
4-Chlorotoluene	ND	0.0020	mg/Kg wet							
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0020	mg/Kg wet							
1,2-Dibromoethane (EDB)	ND	0.0010	mg/Kg wet							
Dibromomethane	ND	0.0020	mg/Kg wet							
1,2-Dichlorobenzene	ND	0.0020	mg/Kg wet							
1,3-Dichlorobenzene	ND	0.0020	mg/Kg wet							
1,4-Dichlorobenzene	ND	0.0020	mg/Kg wet							
trans-1,4-Dichloro-2-butene	ND	0.0040	mg/Kg wet							
Dichlorodifluoromethane (Freon 12)	ND	0.020	mg/Kg wet							
1,1-Dichloroethane	ND	0.0020	mg/Kg wet							
1,2-Dichloroethane	ND	0.0020	mg/Kg wet							
1,1-Dichloroethylene	ND	0.0040	mg/Kg wet							
cis-1,2-Dichloroethylene	ND	0.0020	mg/Kg wet							
trans-1,2-Dichloroethylene	ND	0.0020	mg/Kg wet							
1,2-Dichloropropane	ND	0.0020	mg/Kg wet							
1,3-Dichloropropane	ND	0.0010	mg/Kg wet							
2,2-Dichloropropane	ND	0.0020	mg/Kg wet							
1,1-Dichloropropene	ND	0.0020	mg/Kg wet							
cis-1,3-Dichloropropene	ND	0.0040	mg/Kg wet							
trans-1,3-Dichloropropene	ND	0.0010	mg/Kg wet							
Ethylbenzene	ND	0.0020	mg/Kg wet							
Hexachlorobutadiene	ND	0.0020	mg/Kg wet							
2-Hexanone (MBK)	ND	0.020	mg/Kg wet							
Isopropylbenzene (Cumene)	ND	0.0020	mg/Kg wet							
p-Isopropyltoluene (p-Cymene)	ND	0.0020	mg/Kg wet							
Methyl tert-Butyl Ether (MTBE)	ND	0.0040	mg/Kg wet							
Methylene Chloride	ND	0.020	mg/Kg wet							
4-Methyl-2-pentanone (MIBK)	ND	0.020	mg/Kg wet							
Naphthalene	ND	0.0040	mg/Kg wet							
n-Propylbenzene	ND	0.0020	mg/Kg wet							
Styrene	ND	0.0020	mg/Kg wet							
1,1,1,2-Tetrachloroethane	ND	0.0020	mg/Kg wet							
1,1,2,2-Tetrachloroethane	ND	0.0010	mg/Kg wet							

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B145478 - SW-846 5035										
Blank (B145478-BLK1)				Prepared & Analyzed: 03/30/16						
Tetrachloroethylene	ND	0.0020	mg/Kg wet							
Tetrahydrofuran	ND	0.010	mg/Kg wet							
Toluene	ND	0.0020	mg/Kg wet							
1,2,3-Trichlorobenzene	ND	0.0020	mg/Kg wet							
1,2,4-Trichlorobenzene	ND	0.0020	mg/Kg wet							
1,1,1-Trichloroethane	ND	0.0020	mg/Kg wet							
1,1,2-Trichloroethane	ND	0.0020	mg/Kg wet							
Trichloroethylene	ND	0.0020	mg/Kg wet							
Trichlorofluoromethane (Freon 11)	ND	0.010	mg/Kg wet							
1,2,3-Trichloropropane	ND	0.0020	mg/Kg wet							
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.010	mg/Kg wet							
1,2,4-Trimethylbenzene	ND	0.0020	mg/Kg wet							
1,3,5-Trimethylbenzene	ND	0.0020	mg/Kg wet							
Vinyl Chloride	ND	0.010	mg/Kg wet							
m+p Xylene	ND	0.0040	mg/Kg wet							
o-Xylene	ND	0.0020	mg/Kg wet							
Surrogate: 1,2-Dichloroethane-d4	*0.0504*		mg/Kg wet	0.0500		101	70-130			
Surrogate: Toluene-d8	*0.0484*		mg/Kg wet	0.0500		96.8	70-130			
Surrogate: 4-Bromofluorobenzene	*0.0487*		mg/Kg wet	0.0500		97.3	70-130			
LCS (B145478-BS1)				Prepared & Analyzed: 03/30/16						
Acetone	0.188	0.10	mg/Kg wet	0.200		94.1	70-130			
Acrylonitrile	0.0194	0.0060	mg/Kg wet	0.0200		97.1	70-130			
Benzene	0.0194	0.0020	mg/Kg wet	0.0200		97.2	70-130			
Bromobenzene	0.0195	0.0020	mg/Kg wet	0.0200		97.6	70-130			
Bromodichloromethane	0.0209	0.0020	mg/Kg wet	0.0200		104	70-130			
Bromoform	0.0249	0.0020	mg/Kg wet	0.0200		125	70-130			
Bromomethane	0.0172	0.010	mg/Kg wet	0.0200		85.9	70-130			
2-Butanone (MEK)	0.193	0.040	mg/Kg wet	0.200		96.3	70-130			
n-Butylbenzene	0.0219	0.0020	mg/Kg wet	0.0200		109	70-130			
sec-Butylbenzene	0.0208	0.0020	mg/Kg wet	0.0200		104	70-130			
tert-Butylbenzene	0.0208	0.0020	mg/Kg wet	0.0200		104	70-130			
Carbon Disulfide	0.193	0.0060	mg/Kg wet	0.200		96.3	70-130			
Carbon Tetrachloride	0.0202	0.0020	mg/Kg wet	0.0200		101	70-130			
Chlorobenzene	0.0198	0.0020	mg/Kg wet	0.0200		99.1	70-130			
Chlorodibromomethane	0.0243	0.0010	mg/Kg wet	0.0200		121	70-130			
Chloroethane	0.0179	0.020	mg/Kg wet	0.0200		89.6	70-130			
Chloroform	0.0188	0.0040	mg/Kg wet	0.0200		94.2	70-130			
Chloromethane	0.0179	0.010	mg/Kg wet	0.0200		89.4	70-130			
2-Chlorotoluene	0.0196	0.0020	mg/Kg wet	0.0200		97.8	70-130			
4-Chlorotoluene	0.0204	0.0020	mg/Kg wet	0.0200		102	70-130			
1,2-Dibromo-3-chloropropane (DBCP)	0.0191	0.0020	mg/Kg wet	0.0200		95.5	70-130			
1,2-Dibromoethane (EDB)	0.0199	0.0010	mg/Kg wet	0.0200		99.5	70-130			
Dibromomethane	0.0209	0.0020	mg/Kg wet	0.0200		105	70-130			
1,2-Dichlorobenzene	0.0201	0.0020	mg/Kg wet	0.0200		100	70-130			
1,3-Dichlorobenzene	0.0199	0.0020	mg/Kg wet	0.0200		99.3	70-130			
1,4-Dichlorobenzene	0.0183	0.0020	mg/Kg wet	0.0200		91.5	70-130			
trans-1,4-Dichloro-2-butene	0.0200	0.0040	mg/Kg wet	0.0200		100	70-130			
Dichlorodifluoromethane (Freon 12)	0.0192	0.020	mg/Kg wet	0.0200		96.1	70-130			
1,1-Dichloroethane	0.0186	0.0020	mg/Kg wet	0.0200		92.8	70-130			
1,2-Dichloroethane	0.0203	0.0020	mg/Kg wet	0.0200		102	70-130			
1,1-Dichloroethylene	0.0187	0.0040	mg/Kg wet	0.0200		93.7	70-130			

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B145478 - SW-846 5035										
LCS (B145478-BS1)				Prepared & Analyzed: 03/30/16						
cis-1,2-Dichloroethylene	0.0189	0.0020	mg/Kg wet	0.0200		94.6	70-130			
trans-1,2-Dichloroethylene	0.0181	0.0020	mg/Kg wet	0.0200		90.3	70-130			
1,2-Dichloropropane	0.0186	0.0020	mg/Kg wet	0.0200		92.8	70-130			
1,3-Dichloropropane	0.0201	0.0010	mg/Kg wet	0.0200		100	70-130			
2,2-Dichloropropane	0.0189	0.0020	mg/Kg wet	0.0200		94.4	70-130			
1,1-Dichloropropene	0.0192	0.0020	mg/Kg wet	0.0200		95.9	70-130			
cis-1,3-Dichloropropene	0.0186	0.0040	mg/Kg wet	0.0200		92.8	70-130			
trans-1,3-Dichloropropene	0.0189	0.0010	mg/Kg wet	0.0200		94.4	70-130			
Ethylbenzene	0.0205	0.0020	mg/Kg wet	0.0200		102	70-130			
Hexachlorobutadiene	0.0208	0.0020	mg/Kg wet	0.0200		104	70-130			
2-Hexanone (MBK)	0.208	0.020	mg/Kg wet	0.200		104	70-130			
Isopropylbenzene (Cumene)	0.0223	0.0020	mg/Kg wet	0.0200		111	70-130			
p-Isopropyltoluene (p-Cymene)	0.0211	0.0020	mg/Kg wet	0.0200		105	70-130			
Methyl tert-Butyl Ether (MTBE)	0.0201	0.0040	mg/Kg wet	0.0200		100	70-130			
Methylene Chloride	0.0173	0.020	mg/Kg wet	0.0200		86.3	70-130			
4-Methyl-2-pentanone (MIBK)	0.201	0.020	mg/Kg wet	0.200		101	70-130			
Naphthalene	0.0148	0.0040	mg/Kg wet	0.0200		74.2	70-130			
n-Propylbenzene	0.0208	0.0020	mg/Kg wet	0.0200		104	70-130			
Styrene	0.0221	0.0020	mg/Kg wet	0.0200		110	70-130			
1,1,1,2-Tetrachloroethane	0.0217	0.0020	mg/Kg wet	0.0200		108	70-130			
1,1,2,2-Tetrachloroethane	0.0200	0.0010	mg/Kg wet	0.0200		100	70-130			
Tetrachloroethylene	0.0200	0.0020	mg/Kg wet	0.0200		100	70-130			
Tetrahydrofuran	0.0198	0.010	mg/Kg wet	0.0200		98.8	70-130			
Toluene	0.0190	0.0020	mg/Kg wet	0.0200		95.2	70-130			
1,2,3-Trichlorobenzene	0.0176	0.0020	mg/Kg wet	0.0200		88.2	70-130			
1,2,4-Trichlorobenzene	0.0172	0.0020	mg/Kg wet	0.0200		85.8	70-130			
1,1,1-Trichloroethane	0.0197	0.0020	mg/Kg wet	0.0200		98.3	70-130			
1,1,2-Trichloroethane	0.0201	0.0020	mg/Kg wet	0.0200		101	70-130			
Trichloroethylene	0.0192	0.0020	mg/Kg wet	0.0200		96.2	70-130			
Trichlorofluoromethane (Freon 11)	0.0185	0.010	mg/Kg wet	0.0200		92.7	70-130			
1,2,3-Trichloropropane	0.0199	0.0020	mg/Kg wet	0.0200		99.4	70-130			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.0194	0.010	mg/Kg wet	0.0200		96.8	70-130			
1,2,4-Trimethylbenzene	0.0205	0.0020	mg/Kg wet	0.0200		102	70-130			
1,3,5-Trimethylbenzene	0.0212	0.0020	mg/Kg wet	0.0200		106	70-130			
Vinyl Chloride	0.0171	0.010	mg/Kg wet	0.0200		85.6	70-130			
m+p Xylene	0.0410	0.0040	mg/Kg wet	0.0400		102	70-130			
o-Xylene	0.0212	0.0020	mg/Kg wet	0.0200		106	70-130			
Surrogate: 1,2-Dichloroethane-d4	*0.0485*		mg/Kg wet	0.0500		97.0	70-130			
Surrogate: Toluene-d8	*0.0490*		mg/Kg wet	0.0500		98.0	70-130			
Surrogate: 4-Bromofluorobenzene	*0.0514*		mg/Kg wet	0.0500		103	70-130			

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B145409 - SW-846 3546										
Blank (B145409-BLK1)				Prepared: 03/29/16 Analyzed: 03/30/16						
Acenaphthene	ND	0.17	mg/Kg wet							
Acenaphthylene	ND	0.17	mg/Kg wet							
Anthracene	ND	0.17	mg/Kg wet							
Benzo(a)anthracene	ND	0.17	mg/Kg wet							
Benzo(a)pyrene	ND	0.17	mg/Kg wet							
Benzo(b)fluoranthene	ND	0.17	mg/Kg wet							
Benzo(g,h,i)perylene	ND	0.17	mg/Kg wet							
Benzo(k)fluoranthene	ND	0.17	mg/Kg wet							
Chrysene	ND	0.17	mg/Kg wet							
Dibenz(a,h)anthracene	ND	0.17	mg/Kg wet							
Fluoranthene	ND	0.17	mg/Kg wet							
Fluorene	ND	0.17	mg/Kg wet							
Indeno(1,2,3-cd)pyrene	ND	0.17	mg/Kg wet							
2-Methylnaphthalene	ND	0.17	mg/Kg wet							
Naphthalene	ND	0.17	mg/Kg wet							
Phenanthrene	ND	0.17	mg/Kg wet							
Pyrene	ND	0.17	mg/Kg wet							
Surrogate: Nitrobenzene-d5	*2.12*		mg/Kg wet	3.33		63.5	30-130			
Surrogate: 2-Fluorobiphenyl	*2.12*		mg/Kg wet	3.33		63.6	30-130			
Surrogate: p-Terphenyl-d14	*2.56*		mg/Kg wet	3.33		76.8	30-130			
LCS (B145409-BS1)				Prepared: 03/29/16 Analyzed: 03/30/16						
Acenaphthene	1.26	0.17	mg/Kg wet	1.67		75.3	40-140			
Acenaphthylene	1.30	0.17	mg/Kg wet	1.67		78.0	40-140			
Anthracene	1.32	0.17	mg/Kg wet	1.67		79.3	40-140			
Benzo(a)anthracene	1.32	0.17	mg/Kg wet	1.67		79.0	40-140			
Benzo(a)pyrene	1.37	0.17	mg/Kg wet	1.67		82.5	40-140			
Benzo(b)fluoranthene	1.36	0.17	mg/Kg wet	1.67		81.5	40-140			
Benzo(g,h,i)perylene	1.39	0.17	mg/Kg wet	1.67		83.7	40-140			
Benzo(k)fluoranthene	1.34	0.17	mg/Kg wet	1.67		80.7	40-140			
Chrysene	1.30	0.17	mg/Kg wet	1.67		77.9	40-140			
Dibenz(a,h)anthracene	1.41	0.17	mg/Kg wet	1.67		84.7	40-140			
Fluoranthene	1.31	0.17	mg/Kg wet	1.67		78.8	40-140			
Fluorene	1.38	0.17	mg/Kg wet	1.67		82.9	40-140			
Indeno(1,2,3-cd)pyrene	1.39	0.17	mg/Kg wet	1.67		83.7	40-140			
2-Methylnaphthalene	1.31	0.17	mg/Kg wet	1.67		78.9	40-140			
Naphthalene	1.25	0.17	mg/Kg wet	1.67		75.0	40-140			
Phenanthrene	1.32	0.17	mg/Kg wet	1.67		79.3	40-140			
Pyrene	1.34	0.17	mg/Kg wet	1.67		80.7	40-140			
Surrogate: Nitrobenzene-d5	*2.77*		mg/Kg wet	3.33		83.0	30-130			
Surrogate: 2-Fluorobiphenyl	*2.72*		mg/Kg wet	3.33		81.5	30-130			
Surrogate: p-Terphenyl-d14	*2.94*		mg/Kg wet	3.33		88.2	30-130			

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B145409 - SW-846 3546										
LCS Dup (B145409-BSD1)				Prepared: 03/29/16 Analyzed: 03/30/16						
Acenaphthene	1.27	0.17	mg/Kg wet	1.67		75.9	40-140	0.846	30	
Acenaphthylene	1.29	0.17	mg/Kg wet	1.67		77.5	40-140	0.643	30	
Anthracene	1.34	0.17	mg/Kg wet	1.67		80.3	40-140	1.28	30	
Benzo(a)anthracene	1.32	0.17	mg/Kg wet	1.67		79.2	40-140	0.303	30	
Benzo(a)pyrene	1.39	0.17	mg/Kg wet	1.67		83.5	40-140	1.28	30	
Benzo(b)fluoranthene	1.35	0.17	mg/Kg wet	1.67		80.7	40-140	0.937	30	
Benzo(g,h,i)perylene	1.43	0.17	mg/Kg wet	1.67		85.6	40-140	2.32	30	
Benzo(k)fluoranthene	1.36	0.17	mg/Kg wet	1.67		81.5	40-140	1.04	30	
Chrysene	1.29	0.17	mg/Kg wet	1.67		77.3	40-140	0.773	30	
Dibenz(a,h)anthracene	1.46	0.17	mg/Kg wet	1.67		87.7	40-140	3.53	30	
Fluoranthene	1.31	0.17	mg/Kg wet	1.67		78.8	40-140	0.0508	30	
Fluorene	1.38	0.17	mg/Kg wet	1.67		82.5	40-140	0.459	30	
Indeno(1,2,3-cd)pyrene	1.40	0.17	mg/Kg wet	1.67		84.3	40-140	0.715	30	
2-Methylnaphthalene	1.34	0.17	mg/Kg wet	1.67		80.1	40-140	1.59	30	
Naphthalene	1.26	0.17	mg/Kg wet	1.67		75.7	40-140	0.903	30	
Phenanthrene	1.35	0.17	mg/Kg wet	1.67		80.9	40-140	1.90	30	
Pyrene	1.36	0.17	mg/Kg wet	1.67		81.6	40-140	1.16	30	
Surrogate: Nitrobenzene-d5	*2.84*		mg/Kg wet	3.33		85.2	30-130			
Surrogate: 2-Fluorobiphenyl	*2.67*		mg/Kg wet	3.33		80.2	30-130			
Surrogate: p-Terphenyl-d14	*2.93*		mg/Kg wet	3.33		88.0	30-130			

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QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B145510 - SW-846 3546										
Blank (B145510-BLK1)				Prepared & Analyzed: 03/31/16						
Aroclor-1016	ND	0.020	mg/Kg wet							
Aroclor-1016 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1221	ND	0.020	mg/Kg wet							
Aroclor-1221 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1232	ND	0.020	mg/Kg wet							
Aroclor-1232 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1242	ND	0.020	mg/Kg wet							
Aroclor-1242 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1248	ND	0.020	mg/Kg wet							
Aroclor-1248 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1254	ND	0.020	mg/Kg wet							
Aroclor-1254 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1260	ND	0.020	mg/Kg wet							
Aroclor-1260 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1262	ND	0.020	mg/Kg wet							
Aroclor-1262 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1268	ND	0.020	mg/Kg wet							
Aroclor-1268 [2C]	ND	0.020	mg/Kg wet							
Surrogate: Decachlorobiphenyl	*0.187*		mg/Kg wet	0.200		93.7	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.189*		mg/Kg wet	0.200		94.5	30-150			
Surrogate: Tetrachloro-m-xylene	*0.170*		mg/Kg wet	0.200		84.9	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.171*		mg/Kg wet	0.200		85.3	30-150			
LCS (B145510-BS1)				Prepared & Analyzed: 03/31/16						
Aroclor-1016	0.15	0.020	mg/Kg wet	0.200		72.9	40-140			
Aroclor-1016 [2C]	0.14	0.020	mg/Kg wet	0.200		70.6	40-140			
Aroclor-1260	0.15	0.020	mg/Kg wet	0.200		73.9	40-140			
Aroclor-1260 [2C]	0.15	0.020	mg/Kg wet	0.200		73.7	40-140			
Surrogate: Decachlorobiphenyl	*0.187*		mg/Kg wet	0.200		93.6	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.189*		mg/Kg wet	0.200		94.5	30-150			
Surrogate: Tetrachloro-m-xylene	*0.159*		mg/Kg wet	0.200		79.6	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.160*		mg/Kg wet	0.200		80.1	30-150			
LCS Dup (B145510-BSD1)				Prepared & Analyzed: 03/31/16						
Aroclor-1016	0.15	0.020	mg/Kg wet	0.200		74.5	40-140	2.24	30	
Aroclor-1016 [2C]	0.15	0.020	mg/Kg wet	0.200		72.6	40-140	2.76	30	
Aroclor-1260	0.15	0.020	mg/Kg wet	0.200		73.3	40-140	0.835	30	
Aroclor-1260 [2C]	0.15	0.020	mg/Kg wet	0.200		72.5	40-140	1.56	30	
Surrogate: Decachlorobiphenyl	*0.178*		mg/Kg wet	0.200		89.1	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.178*		mg/Kg wet	0.200		88.8	30-150			
Surrogate: Tetrachloro-m-xylene	*0.164*		mg/Kg wet	0.200		81.8	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.164*		mg/Kg wet	0.200		82.2	30-150			

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QUALITY CONTROL

Polychlorinated Biphenyls with 3540 Soxhlet Extraction - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B145517 - SW-846 3540C										
Blank (B145517-BLK1)				Prepared: 03/31/16 Analyzed: 04/01/16						
Aroclor-1016	ND	0.020	mg/Kg wet							
Aroclor-1016 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1221	ND	0.020	mg/Kg wet							
Aroclor-1221 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1232	ND	0.020	mg/Kg wet							
Aroclor-1232 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1242	ND	0.020	mg/Kg wet							
Aroclor-1242 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1248	ND	0.020	mg/Kg wet							
Aroclor-1248 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1254	ND	0.020	mg/Kg wet							
Aroclor-1254 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1260	ND	0.020	mg/Kg wet							
Aroclor-1260 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1262	ND	0.020	mg/Kg wet							
Aroclor-1262 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1268	ND	0.020	mg/Kg wet							
Aroclor-1268 [2C]	ND	0.020	mg/Kg wet							
Surrogate: Decachlorobiphenyl	*0.183*		mg/Kg wet	0.200		91.3	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.179*		mg/Kg wet	0.200		89.6	30-150			
Surrogate: Tetrachloro-m-xylene	*0.170*		mg/Kg wet	0.200		85.1	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.170*		mg/Kg wet	0.200		85.1	30-150			
LCS (B145517-BS1)				Prepared: 03/31/16 Analyzed: 04/01/16						
Aroclor-1016	0.15	0.020	mg/Kg wet	0.200		77.0	40-140			
Aroclor-1016 [2C]	0.16	0.020	mg/Kg wet	0.200		81.2	40-140			
Aroclor-1260	0.16	0.020	mg/Kg wet	0.200		80.7	40-140			
Aroclor-1260 [2C]	0.16	0.020	mg/Kg wet	0.200		81.4	40-140			
Surrogate: Decachlorobiphenyl	*0.203*		mg/Kg wet	0.200		102	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.197*		mg/Kg wet	0.200		98.5	30-150			
Surrogate: Tetrachloro-m-xylene	*0.184*		mg/Kg wet	0.200		92.0	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.184*		mg/Kg wet	0.200		92.0	30-150			
LCS Dup (B145517-BSD1)				Prepared: 03/31/16 Analyzed: 04/01/16						
Aroclor-1016	0.16	0.020	mg/Kg wet	0.200		77.7	40-140	0.927	30	
Aroclor-1016 [2C]	0.16	0.020	mg/Kg wet	0.200		81.6	40-140	0.416	30	
Aroclor-1260	0.16	0.020	mg/Kg wet	0.200		79.7	40-140	1.33	30	
Aroclor-1260 [2C]	0.16	0.020	mg/Kg wet	0.200		80.6	40-140	0.904	30	
Surrogate: Decachlorobiphenyl	*0.196*		mg/Kg wet	0.200		98.1	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.191*		mg/Kg wet	0.200		95.3	30-150			
Surrogate: Tetrachloro-m-xylene	*0.183*		mg/Kg wet	0.200		91.6	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.184*		mg/Kg wet	0.200		92.1	30-150			

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QUALITY CONTROL

Petroleum Hydrocarbons Analyses - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B145412 - SW-846 3546										
Blank (B145412-BLK1)				Prepared: 03/29/16 Analyzed: 03/30/16						
Diesel Range Organics	ND	8.3	mg/Kg wet							
Surrogate: o-Terphenyl	*2.25*		mg/Kg wet	3.33		67.6	40-140			
LCS (B145412-BS1)				Prepared: 03/29/16 Analyzed: 03/30/16						
Diesel Range Organics	18.9	8.3	mg/Kg wet	33.3		56.6	40-140			
Surrogate: o-Terphenyl	*2.27*		mg/Kg wet	3.33		68.1	40-140			
LCS Dup (B145412-BSD1)				Prepared: 03/29/16 Analyzed: 03/30/16						
Diesel Range Organics	18.9	8.3	mg/Kg wet	33.3		56.8	40-140	0.300		
Surrogate: o-Terphenyl	*2.22*		mg/Kg wet	3.33		66.7	40-140			
Batch B145508 - SW-846 3546										
Blank (B145508-BLK1)				Prepared: 03/31/16 Analyzed: 04/01/16						
CT ETPH	ND	10	mg/Kg wet							
Surrogate: o-Terphenyl	*2.19*		mg/Kg wet	3.33		65.7	50-150			
LCS (B145508-BS1)				Prepared: 03/31/16 Analyzed: 04/01/16						
CT ETPH	23.6	10	mg/Kg wet	33.3		70.8	60-120			
Surrogate: o-Terphenyl	*2.22*		mg/Kg wet	3.33		66.5	50-150			
LCS Dup (B145508-BSD1)				Prepared: 03/31/16 Analyzed: 04/01/16						
CT ETPH	25.0	10	mg/Kg wet	33.3		75.0	60-120	5.74	30	
Surrogate: o-Terphenyl	*2.25*		mg/Kg wet	3.33		67.6	50-150			
Batch B145798 - SW-846 5035/5030B										
Blank (B145798-BLK1)				Prepared: 04/04/16 Analyzed: 04/08/16						
Gasoline Range Organics (GRO)	ND	1.0	mg/Kg wet							
Surrogate: 1-Chloro-3-fluorobenzene	*0.0113*		mg/Kg wet	0.0150		75.6	70-130			
LCS (B145798-BS1)				Prepared: 04/04/16 Analyzed: 04/08/16						
Gasoline Range Organics (GRO)	0.228	0.010	mg/Kg wet	0.250		91.1	80-120			
Surrogate: 1-Chloro-3-fluorobenzene	*0.0112*		mg/Kg wet	0.0150		74.9	70-130			
LCS Dup (B145798-BSD1)				Prepared: 04/04/16 Analyzed: 04/08/16						
Gasoline Range Organics (GRO)	0.233	0.010	mg/Kg wet	0.250		93.2	80-120	2.32	30	
Surrogate: 1-Chloro-3-fluorobenzene	*0.0114*		mg/Kg wet	0.0150		76.1	70-130			

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B145424 - SW-846 7471										
Blank (B145424-BLK1)				Prepared: 03/30/16 Analyzed: 03/31/16						
Mercury	ND	0.025	mg/Kg wet							
LCS (B145424-BS1)				Prepared: 03/30/16 Analyzed: 03/31/16						
Mercury	6.75	0.79	mg/Kg wet	7.10		95.1	73.7-126.3			
LCS Dup (B145424-BSD1)				Prepared: 03/30/16 Analyzed: 03/31/16						
Mercury	7.05	0.82	mg/Kg wet	7.10		99.3	73.7-126.3	4.32	30	
Batch B145428 - SW-846 3050B										
Blank (B145428-BLK1)				Prepared: 03/30/16 Analyzed: 03/31/16						
Antimony	ND	2.5	mg/Kg wet							
Arsenic	ND	2.5	mg/Kg wet							
Barium	ND	2.5	mg/Kg wet							
Beryllium	ND	0.25	mg/Kg wet							
Cadmium	ND	0.25	mg/Kg wet							
Chromium	ND	0.50	mg/Kg wet							
Copper	ND	0.50	mg/Kg wet							
Lead	ND	0.75	mg/Kg wet							
Nickel	ND	0.50	mg/Kg wet							
Selenium	ND	5.0	mg/Kg wet							
Silver	ND	0.50	mg/Kg wet							
Thallium	ND	2.5	mg/Kg wet							
Vanadium	ND	1.0	mg/Kg wet							
Zinc	1.1	1.0	mg/Kg wet							B-07
LCS (B145428-BS1)				Prepared: 03/30/16 Analyzed: 03/31/16						
Antimony	93.3	5.0	mg/Kg wet	105		88.9	0-210.3			
Arsenic	101	5.0	mg/Kg wet	98.5		102	77.8-122.1			
Barium	309	5.0	mg/Kg wet	308		100	82-117.4			
Beryllium	68.1	0.50	mg/Kg wet	66.0		103	82.3-117.7			
Cadmium	145	0.50	mg/Kg wet	146		99.1	81.9-118.2			
Chromium	183	1.0	mg/Kg wet	182		100	78.7-120.6			
Copper	101	1.0	mg/Kg wet	106		95.7	80.4-119.6			
Lead	117	1.5	mg/Kg wet	130		90.3	82.4-117.8			
Nickel	147	1.0	mg/Kg wet	149		98.5	82.2-117.8			
Selenium	144	10	mg/Kg wet	154		93.3	77.1-122.3			
Silver	38.3	1.0	mg/Kg wet	40.9		93.6	74.3-125.4			
Thallium	173	5.0	mg/Kg wet	175		99.1	78.2-121.6			
Vanadium	92.7	2.0	mg/Kg wet	96.7		95.9	64.8-135.2			
Zinc	198	2.0	mg/Kg wet	191		104	79.7-120.8			B

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B145428 - SW-846 3050B											
LCS Dup (B145428-BSD1)				Prepared: 03/30/16 Analyzed: 03/31/16							
Antimony	94.5	5.0	mg/Kg wet	105		90.0		0-210.3	1.26	30	
Arsenic	104	5.0	mg/Kg wet	98.5		105		77.8-122.1	2.72	30	
Barium	306	5.0	mg/Kg wet	308		99.5		82-117.4	0.693	30	
Beryllium	69.3	0.50	mg/Kg wet	66.0		105		82.3-117.7	1.71	30	
Cadmium	143	0.50	mg/Kg wet	146		98.0		81.9-118.2	1.04	30	
Chromium	183	1.0	mg/Kg wet	182		100		78.7-120.6	0.0831	30	
Copper	102	1.0	mg/Kg wet	106		95.8		80.4-119.6	0.0692	30	
Lead	122	1.5	mg/Kg wet	130		93.8		82.4-117.8	3.83	30	
Nickel	145	1.0	mg/Kg wet	149		97.0		82.2-117.8	1.56	30	
Selenium	147	10	mg/Kg wet	154		95.3		77.1-122.3	2.07	30	
Silver	38.2	1.0	mg/Kg wet	40.9		93.4		74.3-125.4	0.135	30	
Thallium	171	5.0	mg/Kg wet	175		97.9		78.2-121.6	1.19	30	
Vanadium	93.8	2.0	mg/Kg wet	96.7		97.0		64.8-135.2	1.21	30	
Zinc	204	2.0	mg/Kg wet	191		107		79.7-120.8	3.11	30	B
Duplicate (B145428-DUP1)		**Source: 16C1301-03**		Prepared: 03/30/16 Analyzed: 03/31/16							
Antimony	ND	3.3	mg/Kg dry		ND				NC	35	
Arsenic	ND	3.3	mg/Kg dry		ND				NC	35	
Barium	291	3.3	mg/Kg dry		298				2.51	35	
Beryllium	2.51	0.33	mg/Kg dry		2.41				3.98	35	
Cadmium	1.35	0.33	mg/Kg dry		1.20				11.4	35	
Chromium	21.5	0.66	mg/Kg dry		22.6				5.13	35	
Copper	364	0.66	mg/Kg dry		596				**48.2**	* 35	R-02
Lead	169	0.99	mg/Kg dry		157				7.43	35	
Nickel	28.7	0.66	mg/Kg dry		28.9				0.692	35	
Selenium	ND	6.6	mg/Kg dry		ND				NC	35	
Silver	ND	0.66	mg/Kg dry		ND				NC	35	
Thallium	ND	3.3	mg/Kg dry		ND				NC	35	
Vanadium	27.1	1.3	mg/Kg dry		27.0				0.273	35	
Zinc	266	1.3	mg/Kg dry		161				**49.3**	* 35	B, R-02
MRL Check (B145428-MRL1)				Prepared: 03/30/16 Analyzed: 04/04/16							
Lead	0.989	0.74	mg/Kg wet	0.744		**133**	*	80-120			L-10
Matrix Spike (B145428-MS1)		**Source: 16C1301-03**		Prepared: 03/30/16 Analyzed: 03/31/16							
Antimony	18.7	3.3	mg/Kg dry	33.3	ND	**56.0**	*	75-125			MS-07
Arsenic	22.0	3.3	mg/Kg dry	33.3	ND	**66.2**	*	75-125			MS-07
Barium	354	3.3	mg/Kg dry	33.3	298	**167**	*	75-125			MS-19
Beryllium	33.9	0.33	mg/Kg dry	33.3	2.41	94.5		75-125			
Cadmium	30.8	0.33	mg/Kg dry	33.3	1.20	88.9		75-125			
Chromium	53.6	0.67	mg/Kg dry	33.3	22.6	92.8		75-125			
Copper	681	0.67	mg/Kg dry	33.3	596	**255**	*	75-125			MS-19
Lead	186	1.0	mg/Kg dry	33.3	157	87.4		75-125			
Nickel	58.4	0.67	mg/Kg dry	33.3	28.9	88.7		75-125			
Selenium	16.9	6.7	mg/Kg dry	33.3	ND	**50.7**	*	75-125			MS-07
Silver	27.8	0.67	mg/Kg dry	33.3	ND	83.3		75-125			
Thallium	25.7	3.3	mg/Kg dry	33.3	ND	77.1		75-125			
Vanadium	57.4	1.3	mg/Kg dry	33.3	27.0	91.0		75-125			
Zinc	227	1.3	mg/Kg dry	33.3	161	**199**	*	75-125			B, MS-19

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B148777 - SW-846 3050B										
Blank (B148777-BLK1)				Prepared: 05/10/16 Analyzed: 05/12/16						
Antimony	ND	2.5	mg/Kg wet							
Arsenic	ND	2.5	mg/Kg wet							
Barium	ND	2.5	mg/Kg wet							
Beryllium	ND	0.25	mg/Kg wet							
Cadmium	ND	0.25	mg/Kg wet							
Chromium	ND	0.50	mg/Kg wet							
Copper	ND	0.50	mg/Kg wet							
Lead	ND	0.75	mg/Kg wet							
Nickel	ND	0.50	mg/Kg wet							
Selenium	ND	5.0	mg/Kg wet							
Silver	ND	0.50	mg/Kg wet							
Thallium	ND	2.5	mg/Kg wet							
Vanadium	ND	1.0	mg/Kg wet							
Zinc	ND	1.0	mg/Kg wet							
LCS (B148777-BS1)				Prepared: 05/10/16 Analyzed: 05/12/16						
Antimony	99.9	5.0	mg/Kg wet	116		86.2	0-210.3			
Arsenic	119	5.0	mg/Kg wet	122		97.3	77.8-122.1			
Barium	159	5.0	mg/Kg wet	167		95.4	82-117.4			
Beryllium	56.2	0.50	mg/Kg wet	54.3		104	82.3-117.7			
Cadmium	82.2	0.50	mg/Kg wet	88.0		93.4	81.9-118.2			
Chromium	96.5	1.0	mg/Kg wet	102		94.6	78.7-120.6			
Copper	70.4	1.0	mg/Kg wet	78.0		90.3	80.4-119.6			
Lead	85.2	1.5	mg/Kg wet	94.5		90.2	82.4-117.8			
Nickel	51.1	1.0	mg/Kg wet	56.3		90.7	82.2-117.8			
Selenium	148	10	mg/Kg wet	157		94.6	77.1-122.3			
Silver	31.4	1.0	mg/Kg wet	34.2		91.9	74.3-125.4			
Thallium	112	5.0	mg/Kg wet	116		96.8	78.2-121.6			
Vanadium	64.8	2.0	mg/Kg wet	67.1		96.6	64.8-135.2			
Zinc	196	2.0	mg/Kg wet	207		94.8	79.7-120.8			
LCS Dup (B148777-BSD1)				Prepared: 05/10/16 Analyzed: 05/12/16						
Antimony	94.2	4.6	mg/Kg wet	116		81.2	0-210.3	5.92	30	
Arsenic	116	4.6	mg/Kg wet	122		94.9	77.8-122.1	2.49	30	
Barium	153	4.6	mg/Kg wet	167		91.4	82-117.4	4.34	30	
Beryllium	54.9	0.46	mg/Kg wet	54.3		101	82.3-117.7	2.45	30	
Cadmium	83.9	0.46	mg/Kg wet	88.0		95.3	81.9-118.2	2.06	30	
Chromium	96.1	0.92	mg/Kg wet	102		94.2	78.7-120.6	0.440	30	
Copper	68.8	0.92	mg/Kg wet	78.0		88.2	80.4-119.6	2.38	30	
Lead	85.0	1.4	mg/Kg wet	94.5		89.9	82.4-117.8	0.319	30	
Nickel	50.3	0.92	mg/Kg wet	56.3		89.3	82.2-117.8	1.60	30	
Selenium	149	9.2	mg/Kg wet	157		95.0	77.1-122.3	0.483	30	
Silver	31.6	0.92	mg/Kg wet	34.2		92.5	74.3-125.4	0.662	30	
Thallium	111	4.6	mg/Kg wet	116		95.5	78.2-121.6	1.33	30	
Vanadium	63.5	1.8	mg/Kg wet	67.1		94.6	64.8-135.2	2.01	30	
Zinc	193	1.8	mg/Kg wet	207		93.1	79.7-120.8	1.73	30	

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B148777 - SW-846 3050B										
MRL Check (B148777-MRL1)				Prepared: 05/10/16 Analyzed: 05/12/16						
Lead	0.571	0.71	mg/Kg wet	0.711		80.4	80-120			
Batch B149517 - SW-846 3050B										
Blank (B149517-BLK1)				Prepared: 05/18/16 Analyzed: 05/19/16						
Antimony	ND	2.5	mg/Kg wet							
Arsenic	ND	2.5	mg/Kg wet							
Barium	ND	2.5	mg/Kg wet							
Beryllium	ND	0.25	mg/Kg wet							
Cadmium	ND	0.25	mg/Kg wet							
Chromium	ND	0.50	mg/Kg wet							
Copper	ND	0.50	mg/Kg wet							
Lead	ND	0.75	mg/Kg wet							
Nickel	ND	0.50	mg/Kg wet							
Selenium	ND	5.0	mg/Kg wet							
Silver	ND	0.50	mg/Kg wet							
Thallium	ND	2.5	mg/Kg wet							
Vanadium	ND	1.0	mg/Kg wet							
Zinc	ND	1.0	mg/Kg wet							
LCS (B149517-BS1)				Prepared: 05/18/16 Analyzed: 05/19/16						
Antimony	85.6	5.0	mg/Kg wet	116		73.8	0-210.3			
Arsenic	112	5.0	mg/Kg wet	122		91.6	77.8-122.1			
Barium	152	5.0	mg/Kg wet	167		90.9	82-117.4			
Beryllium	52.6	0.50	mg/Kg wet	54.3		96.9	82.3-117.7			
Cadmium	81.0	0.50	mg/Kg wet	88.0		92.0	81.9-118.2			
Chromium	91.7	0.99	mg/Kg wet	102		89.9	78.7-120.6			
Copper	68.7	0.99	mg/Kg wet	78.0		88.0	80.4-119.6			
Lead	81.8	1.5	mg/Kg wet	94.5		86.5	82.4-117.8			
Nickel	49.7	0.99	mg/Kg wet	56.3		88.2	82.2-117.8			
Selenium	140	9.9	mg/Kg wet	157		89.2	77.1-122.3			
Silver	29.9	0.99	mg/Kg wet	34.2		87.3	74.3-125.4			
Thallium	111	5.0	mg/Kg wet	116		95.7	78.2-121.6			
Vanadium	60.3	2.0	mg/Kg wet	67.1		89.9	64.8-135.2			
Zinc	195	2.0	mg/Kg wet	207		94.2	79.7-120.8			
LCS Dup (B149517-BSD1)				Prepared: 05/18/16 Analyzed: 05/19/16						
Antimony	93.8	4.8	mg/Kg wet	116		80.9	0-210.3	9.17	30	
Arsenic	122	4.8	mg/Kg wet	122		99.7	77.8-122.1	8.41	30	
Barium	159	4.8	mg/Kg wet	167		94.9	82-117.4	4.34	30	
Beryllium	55.8	0.48	mg/Kg wet	54.3		103	82.3-117.7	5.89	30	
Cadmium	87.4	0.48	mg/Kg wet	88.0		99.3	81.9-118.2	7.62	30	
Chromium	97.6	0.97	mg/Kg wet	102		95.7	78.7-120.6	6.25	30	
Copper	72.6	0.97	mg/Kg wet	78.0		93.1	80.4-119.6	5.66	30	
Lead	89.5	1.4	mg/Kg wet	94.5		94.7	82.4-117.8	9.01	30	
Nickel	54.2	0.97	mg/Kg wet	56.3		96.2	82.2-117.8	8.72	30	
Selenium	155	9.7	mg/Kg wet	157		98.8	77.1-122.3	10.2	30	
Silver	31.9	0.97	mg/Kg wet	34.2		93.4	74.3-125.4	6.72	30	
Thallium	120	4.8	mg/Kg wet	116		103	78.2-121.6	7.38	30	
Vanadium	64.3	1.9	mg/Kg wet	67.1		95.8	64.8-135.2	6.36	30	
Zinc	210	1.9	mg/Kg wet	207		102	79.7-120.8	7.45	30	

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B149517 - SW-846 3050B											
Duplicate (B149517-DUP1)		**Source: 16C1301-04RE2**		Prepared: 05/18/16 Analyzed: 05/19/16							
Antimony	23.6	3.1	mg/Kg dry		21.2				10.8	35	
Arsenic	ND	3.1	mg/Kg dry		ND				NC	35	
Barium	154	3.1	mg/Kg dry		195				23.3	35	
Beryllium	ND	0.31	mg/Kg dry		ND				NC	35	
Cadmium	1.57	0.31	mg/Kg dry		1.78				12.6	35	
Chromium	88.8	0.63	mg/Kg dry		88.7				0.0356	35	
Copper	732	0.63	mg/Kg dry		600				19.9	35	
Lead	427	0.94	mg/Kg dry		503				16.5	35	
Nickel	61.2	0.63	mg/Kg dry		60.0				2.00	35	
Selenium	ND	6.3	mg/Kg dry		ND				NC	35	
Silver	ND	0.63	mg/Kg dry		ND				NC	35	
Thallium	ND	3.1	mg/Kg dry		ND				NC	35	
Vanadium	72.4	1.3	mg/Kg dry		57.7				22.7	35	
Zinc	396	1.3	mg/Kg dry		348				12.8	35	
MRL Check (B149517-MRL1)				Prepared: 05/18/16 Analyzed: 05/19/16							
Lead	0.609	0.73	mg/Kg wet	0.728		83.7		80-120			
Matrix Spike (B149517-MS1)		**Source: 16C1301-04RE2**		Prepared: 05/18/16 Analyzed: 05/19/16							
Antimony	33.6	3.0	mg/Kg dry	29.9	21.2	**41.6**	*	75-125			MS-07
Arsenic	26.7	3.0	mg/Kg dry	29.9	1.11	85.8		75-125			
Barium	208	3.0	mg/Kg dry	29.9	195	**43.6**	*	75-125			MS-19
Beryllium	30.7	0.30	mg/Kg dry	29.9	ND	103		75-125			
Cadmium	30.3	0.30	mg/Kg dry	29.9	1.78	95.6		75-125			
Chromium	175	0.60	mg/Kg dry	29.9	88.7	**289**	*	75-125			MS-11
Copper	560	0.60	mg/Kg dry	29.9	600	**-133**	*	75-125			MS-19
Lead	499	0.90	mg/Kg dry	29.9	503	**-13.5**	*	75-125			MS-19
Nickel	92.6	0.60	mg/Kg dry	29.9	60.0	109		75-125			
Selenium	19.6	6.0	mg/Kg dry	29.9	ND	**65.7**	*	75-125			MS-07
Silver	27.3	0.60	mg/Kg dry	29.9	ND	91.3		75-125			
Thallium	30.2	3.0	mg/Kg dry	29.9	ND	101		75-125			
Vanadium	87.6	1.2	mg/Kg dry	29.9	57.7	100		75-125			
Zinc	348	1.2	mg/Kg dry	29.9	348	**0.190**	*	75-125			MS-19

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QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B145437 - SW-846 9045C										
LCS (B145437-BS1)				Prepared & Analyzed: 03/30/16						
pH	5.99		pH Units	6.00		99.8	98.6-102			
Batch B145441 - % Solids										
Duplicate (B145441-DUP1)		**Source: 16C1301-05**		Prepared: 03/30/16 Analyzed: 03/31/16						
% Solids	62.9		% Wt		60.6			3.72	20	
Batch B145978 - SW-846 9014										
Blank (B145978-BLK1)				Prepared & Analyzed: 04/06/16						
Reactive Cyanide	ND	0.40	mg/Kg							
LCS (B145978-BS1)				Prepared & Analyzed: 04/06/16						
Reactive Cyanide	9.5	0.40	mg/Kg	10.0		95.4	86.4-107			
Batch B145979 - SW-846 9030A										
Blank (B145979-BLK1)				Prepared & Analyzed: 04/06/16						
Reactive Sulfide	ND	2.0	mg/Kg							
LCS (B145979-BS1)				Prepared & Analyzed: 04/06/16						
Reactive Sulfide	15	2.0	mg/Kg	14.8		100	42.9-132			

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QUALITY CONTROL

SPLP - Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B146103 - SW-846 5030B										
Blank (B146103-BLK1)				Prepared & Analyzed: 04/07/16						
Acetone	ND	50	µg/L							
Acrylonitrile	ND	5.0	µg/L							
Benzene	ND	1.0	µg/L							
Bromobenzene	ND	1.0	µg/L							
Bromodichloromethane	ND	0.50	µg/L							
Bromoform	ND	2.0	µg/L							V-05, L-03
Bromomethane	ND	2.0	µg/L							
2-Butanone (MEK)	ND	20	µg/L							
n-Butylbenzene	ND	1.0	µg/L							
sec-Butylbenzene	ND	1.0	µg/L							
tert-Butylbenzene	ND	1.0	µg/L							
Carbon Disulfide	ND	4.0	µg/L							
Carbon Tetrachloride	ND	5.0	µg/L							
Chlorobenzene	ND	1.0	µg/L							
Chlorodibromomethane	ND	0.50	µg/L							
Chloroethane	ND	2.0	µg/L							
Chloroform	ND	2.0	µg/L							
Chloromethane	ND	2.0	µg/L							
2-Chlorotoluene	ND	1.0	µg/L							
4-Chlorotoluene	ND	1.0	µg/L							
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L							L-03, V-05
1,2-Dibromoethane (EDB)	ND	0.50	µg/L							
Dibromomethane	ND	1.0	µg/L							
1,2-Dichlorobenzene	ND	1.0	µg/L							
1,3-Dichlorobenzene	ND	1.0	µg/L							
1,4-Dichlorobenzene	ND	1.0	µg/L							
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L							
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L							
1,1-Dichloroethane	ND	1.0	µg/L							
1,2-Dichloroethane	ND	1.0	µg/L							
1,1-Dichloroethylene	ND	1.0	µg/L							
cis-1,2-Dichloroethylene	ND	1.0	µg/L							
trans-1,2-Dichloroethylene	ND	1.0	µg/L							
1,2-Dichloropropane	ND	1.0	µg/L							
1,3-Dichloropropane	ND	0.50	µg/L							
2,2-Dichloropropane	ND	1.0	µg/L							
1,1-Dichloropropene	ND	2.0	µg/L							
cis-1,3-Dichloropropene	ND	0.50	µg/L							
trans-1,3-Dichloropropene	ND	0.50	µg/L							
Ethylbenzene	ND	1.0	µg/L							
Hexachlorobutadiene	ND	0.50	µg/L							
2-Hexanone (MBK)	ND	10	µg/L							
Isopropylbenzene (Cumene)	ND	1.0	µg/L							
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L							
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L							
Methylene Chloride	ND	5.0	µg/L							
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L							
Naphthalene	ND	2.0	µg/L							
n-Propylbenzene	ND	1.0	µg/L							
Styrene	ND	1.0	µg/L							
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L							
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L							

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QUALITY CONTROL

SPLP - Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B146103 - SW-846 5030B											
Blank (B146103-BLK1)				Prepared & Analyzed: 04/07/16							
Tetrachloroethylene	ND	1.0	µg/L								
Tetrahydrofuran	ND	10	µg/L								
Toluene	ND	1.0	µg/L								
1,2,3-Trichlorobenzene	ND	5.0	µg/L								
1,2,4-Trichlorobenzene	ND	1.0	µg/L								
1,1,1-Trichloroethane	ND	1.0	µg/L								
1,1,2-Trichloroethane	ND	1.0	µg/L								
Trichloroethylene	ND	1.0	µg/L								
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L								
1,2,3-Trichloropropane	ND	2.0	µg/L								
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L								
1,2,4-Trimethylbenzene	ND	1.0	µg/L								
1,3,5-Trimethylbenzene	ND	1.0	µg/L								
Vinyl Chloride	ND	2.0	µg/L								
m+p Xylene	ND	2.0	µg/L								
o-Xylene	ND	1.0	µg/L								
Surrogate: 1,2-Dichloroethane-d4	*25.9*		µg/L	25.0		104		70-130			
Surrogate: Toluene-d8	*25.8*		µg/L	25.0		103		70-130			
Surrogate: 4-Bromofluorobenzene	*23.6*		µg/L	25.0		94.5		70-130			
LCS (B146103-BS1)				Prepared & Analyzed: 04/07/16							
Acetone	106	50	µg/L	100		106		70-130			
Acrylonitrile	8.65	5.0	µg/L	10.0		86.5		70-130			
Benzene	10.6	1.0	µg/L	10.0		106		70-130			
Bromobenzene	10.1	1.0	µg/L	10.0		101		70-130			
Bromodichloromethane	9.84	0.50	µg/L	10.0		98.4		70-130			
Bromoform	6.66	2.0	µg/L	10.0		**66.6**	*	70-130			L-03, V-05
Bromomethane	12.2	2.0	µg/L	10.0		122		70-130			
2-Butanone (MEK)	81.2	20	µg/L	100		81.2		70-130			
n-Butylbenzene	10.0	1.0	µg/L	10.0		100		70-130			
sec-Butylbenzene	10.3	1.0	µg/L	10.0		103		70-130			
tert-Butylbenzene	10.4	1.0	µg/L	10.0		104		70-130			
Carbon Disulfide	119	4.0	µg/L	100		119		70-130			
Carbon Tetrachloride	10.2	5.0	µg/L	10.0		102		70-130			
Chlorobenzene	10.4	1.0	µg/L	10.0		104		70-130			
Chlorodibromomethane	8.94	0.50	µg/L	10.0		89.4		70-130			
Chloroethane	12.6	2.0	µg/L	10.0		126		70-130			
Chloroform	11.2	2.0	µg/L	10.0		112		70-130			
Chloromethane	10.1	2.0	µg/L	10.0		101		70-130			
2-Chlorotoluene	10.2	1.0	µg/L	10.0		102		70-130			
4-Chlorotoluene	10.1	1.0	µg/L	10.0		101		70-130			
1,2-Dibromo-3-chloropropane (DBCP)	6.53	5.0	µg/L	10.0		**65.3**	*	70-130			L-03, V-05
1,2-Dibromoethane (EDB)	9.53	0.50	µg/L	10.0		95.3		70-130			
Dibromomethane	10.5	1.0	µg/L	10.0		105		70-130			
1,2-Dichlorobenzene	10.0	1.0	µg/L	10.0		100		70-130			
1,3-Dichlorobenzene	9.90	1.0	µg/L	10.0		99.0		70-130			
1,4-Dichlorobenzene	9.91	1.0	µg/L	10.0		99.1		70-130			
trans-1,4-Dichloro-2-butene	7.09	2.0	µg/L	10.0		70.9		70-130			
Dichlorodifluoromethane (Freon 12)	14.3	2.0	µg/L	10.0		**143**	*	70-130			L-01, V-20
1,1-Dichloroethane	10.6	1.0	µg/L	10.0		106		70-130			
1,2-Dichloroethane	10.6	1.0	µg/L	10.0		106		70-130			
1,1-Dichloroethylene	11.4	1.0	µg/L	10.0		114		70-130			

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QUALITY CONTROL

SPLP - Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B146103 - SW-846 5030B										
LCS (B146103-BS1)				Prepared & Analyzed: 04/07/16						
cis-1,2-Dichloroethylene	10.8	1.0	µg/L	10.0		108	70-130			
trans-1,2-Dichloroethylene	10.6	1.0	µg/L	10.0		106	70-130			
1,2-Dichloropropane	10.1	1.0	µg/L	10.0		101	70-130			
1,3-Dichloropropane	9.78	0.50	µg/L	10.0		97.8	70-130			
2,2-Dichloropropane	10.5	1.0	µg/L	10.0		105	70-130			
1,1-Dichloropropene	10.7	2.0	µg/L	10.0		107	70-130			
cis-1,3-Dichloropropene	9.68	0.50	µg/L	10.0		96.8	70-130			
trans-1,3-Dichloropropene	9.67	0.50	µg/L	10.0		96.7	70-130			
Ethylbenzene	10.3	1.0	µg/L	10.0		103	70-130			
Hexachlorobutadiene	11.4	0.50	µg/L	10.0		114	70-130			
2-Hexanone (MBK)	83.8	10	µg/L	100		83.8	70-130			
Isopropylbenzene (Cumene)	10.5	1.0	µg/L	10.0		105	70-130			
p-Isopropyltoluene (p-Cymene)	10.2	1.0	µg/L	10.0		102	70-130			
Methyl tert-Butyl Ether (MTBE)	9.40	1.0	µg/L	10.0		94.0	70-130			
Methylene Chloride	11.4	5.0	µg/L	10.0		114	70-130			
4-Methyl-2-pentanone (MIBK)	80.7	10	µg/L	100		80.7	70-130			
Naphthalene	7.81	2.0	µg/L	10.0		78.1	70-130			
n-Propylbenzene	10.3	1.0	µg/L	10.0		103	70-130			
Styrene	10.4	1.0	µg/L	10.0		104	70-130			
1,1,1,2-Tetrachloroethane	9.33	1.0	µg/L	10.0		93.3	70-130			
1,1,2,2-Tetrachloroethane	8.36	0.50	µg/L	10.0		83.6	70-130			
Tetrachloroethylene	10.1	1.0	µg/L	10.0		101	70-130			
Tetrahydrofuran	7.92	10	µg/L	10.0		79.2	70-130			
Toluene	10.5	1.0	µg/L	10.0		105	70-130			
1,2,3-Trichlorobenzene	9.12	5.0	µg/L	10.0		91.2	70-130			
1,2,4-Trichlorobenzene	9.23	1.0	µg/L	10.0		92.3	70-130			
1,1,1-Trichloroethane	10.3	1.0	µg/L	10.0		103	70-130			
1,1,2-Trichloroethane	9.89	1.0	µg/L	10.0		98.9	70-130			
Trichloroethylene	10.3	1.0	µg/L	10.0		103	70-130			
Trichlorofluoromethane (Freon 11)	11.7	2.0	µg/L	10.0		117	70-130			
1,2,3-Trichloropropane	8.59	2.0	µg/L	10.0		85.9	70-130			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	12.1	1.0	µg/L	10.0		121	70-130			
1,2,4-Trimethylbenzene	9.38	1.0	µg/L	10.0		93.8	70-130			
1,3,5-Trimethylbenzene	9.86	1.0	µg/L	10.0		98.6	70-130			
Vinyl Chloride	11.4	2.0	µg/L	10.0		114	70-130			
m+p Xylene	20.9	2.0	µg/L	20.0		104	70-130			
o-Xylene	9.89	1.0	µg/L	10.0		98.9	70-130			
Surrogate: 1,2-Dichloroethane-d4	*25.6*		µg/L	25.0		102	70-130			
Surrogate: Toluene-d8	*25.6*		µg/L	25.0		102	70-130			
Surrogate: 4-Bromofluorobenzene	*25.3*		µg/L	25.0		101	70-130			
Batch B146181 - SW-846 5030B										
Blank (B146181-BLK1)				Prepared: 04/08/16 Analyzed: 04/09/16						
Acetone	ND	50	µg/L							
Acrylonitrile	ND	5.0	µg/L							
Benzene	ND	1.0	µg/L							
Bromobenzene	ND	1.0	µg/L							
Bromodichloromethane	ND	0.50	µg/L							
Bromoform	ND	1.0	µg/L							
Bromomethane	ND	2.0	µg/L							
2-Butanone (MEK)	ND	20	µg/L							

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QUALITY CONTROL

SPLP - Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B146181 - SW-846 5030B										
Blank (B146181-BLK1)				Prepared: 04/08/16 Analyzed: 04/09/16						
n-Butylbenzene	ND	1.0	µg/L							
sec-Butylbenzene	ND	1.0	µg/L							
tert-Butylbenzene	ND	1.0	µg/L							
Carbon Disulfide	ND	4.0	µg/L							
Carbon Tetrachloride	ND	5.0	µg/L							
Chlorobenzene	ND	1.0	µg/L							
Chlorodibromomethane	ND	0.50	µg/L							
Chloroethane	ND	2.0	µg/L							
Chloroform	ND	2.0	µg/L							
Chloromethane	ND	2.0	µg/L							
2-Chlorotoluene	ND	1.0	µg/L							
4-Chlorotoluene	ND	1.0	µg/L							
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L							
1,2-Dibromoethane (EDB)	ND	0.50	µg/L							
Dibromomethane	ND	1.0	µg/L							
1,2-Dichlorobenzene	ND	1.0	µg/L							
1,3-Dichlorobenzene	ND	1.0	µg/L							
1,4-Dichlorobenzene	ND	1.0	µg/L							
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L							
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L							
1,1-Dichloroethane	ND	1.0	µg/L							
1,2-Dichloroethane	ND	1.0	µg/L							
1,1-Dichloroethylene	ND	1.0	µg/L							
cis-1,2-Dichloroethylene	ND	1.0	µg/L							
trans-1,2-Dichloroethylene	ND	1.0	µg/L							
1,2-Dichloropropane	ND	1.0	µg/L							
1,3-Dichloropropane	ND	0.50	µg/L							
2,2-Dichloropropane	ND	1.0	µg/L							V-05, L-03
1,1-Dichloropropene	ND	2.0	µg/L							
cis-1,3-Dichloropropene	ND	0.50	µg/L							
trans-1,3-Dichloropropene	ND	0.50	µg/L							
Ethylbenzene	ND	1.0	µg/L							
Hexachlorobutadiene	ND	0.50	µg/L							
2-Hexanone (MBK)	ND	10	µg/L							
Isopropylbenzene (Cumene)	ND	1.0	µg/L							
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L							
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L							
Methylene Chloride	ND	5.0	µg/L							
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L							
Naphthalene	ND	2.0	µg/L							
n-Propylbenzene	ND	1.0	µg/L							
Styrene	ND	1.0	µg/L							
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L							
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L							
Tetrachloroethylene	ND	1.0	µg/L							
Tetrahydrofuran	ND	10	µg/L							
Toluene	ND	1.0	µg/L							
1,2,3-Trichlorobenzene	ND	5.0	µg/L							
1,2,4-Trichlorobenzene	ND	1.0	µg/L							
1,1,1-Trichloroethane	ND	1.0	µg/L							
1,1,2-Trichloroethane	ND	1.0	µg/L							
Trichloroethylene	ND	1.0	µg/L							

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QUALITY CONTROL

SPLP - Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B146181 - SW-846 5030B											
Blank (B146181-BLK1)				Prepared: 04/08/16 Analyzed: 04/09/16							
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L								
1,2,3-Trichloropropane	ND	2.0	µg/L								
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L								
1,2,4-Trimethylbenzene	ND	1.0	µg/L								
1,3,5-Trimethylbenzene	ND	1.0	µg/L								
Vinyl Chloride	ND	2.0	µg/L								
m+p Xylene	ND	2.0	µg/L								
o-Xylene	ND	1.0	µg/L								
Surrogate: 1,2-Dichloroethane-d4	*23.0*		µg/L	25.0		92.0		70-130			
Surrogate: Toluene-d8	*25.0*		µg/L	25.0		99.8		70-130			
Surrogate: 4-Bromofluorobenzene	*23.9*		µg/L	25.0		95.4		70-130			
LCS (B146181-BS1)				Prepared: 04/08/16 Analyzed: 04/09/16							
Acetone	74.0	50	µg/L	100		74.0		70-130			
Acrylonitrile	8.29	5.0	µg/L	10.0		82.9		70-130			
Benzene	10.3	1.0	µg/L	10.0		103		70-130			
Bromobenzene	9.89	1.0	µg/L	10.0		98.9		70-130			
Bromodichloromethane	9.46	0.50	µg/L	10.0		94.6		70-130			
Bromoform	10.2	1.0	µg/L	10.0		102		70-130			
Bromomethane	10.4	2.0	µg/L	10.0		104		70-130			V-20
2-Butanone (MEK)	97.2	20	µg/L	100		97.2		70-130			
n-Butylbenzene	10.2	1.0	µg/L	10.0		102		70-130			
sec-Butylbenzene	9.86	1.0	µg/L	10.0		98.6		70-130			
tert-Butylbenzene	10.6	1.0	µg/L	10.0		106		70-130			
Carbon Disulfide	93.6	4.0	µg/L	100		93.6		70-130			
Carbon Tetrachloride	10.0	5.0	µg/L	10.0		100		70-130			
Chlorobenzene	10.4	1.0	µg/L	10.0		104		70-130			
Chlorodibromomethane	9.70	0.50	µg/L	10.0		97.0		70-130			
Chloroethane	8.40	2.0	µg/L	10.0		84.0		70-130			
Chloroform	9.85	2.0	µg/L	10.0		98.5		70-130			
Chloromethane	15.2	2.0	µg/L	10.0		**152**	*	70-130			L-01, V-20
2-Chlorotoluene	9.09	1.0	µg/L	10.0		90.9		70-130			
4-Chlorotoluene	9.84	1.0	µg/L	10.0		98.4		70-130			
1,2-Dibromo-3-chloropropane (DBCP)	10.1	5.0	µg/L	10.0		101		70-130			
1,2-Dibromoethane (EDB)	9.63	0.50	µg/L	10.0		96.3		70-130			
Dibromomethane	10.0	1.0	µg/L	10.0		100		70-130			
1,2-Dichlorobenzene	10.0	1.0	µg/L	10.0		100		70-130			
1,3-Dichlorobenzene	9.75	1.0	µg/L	10.0		97.5		70-130			
1,4-Dichlorobenzene	9.79	1.0	µg/L	10.0		97.9		70-130			
trans-1,4-Dichloro-2-butene	11.1	2.0	µg/L	10.0		111		70-130			
Dichlorodifluoromethane (Freon 12)	9.20	2.0	µg/L	10.0		92.0		70-130			
1,1-Dichloroethane	9.98	1.0	µg/L	10.0		99.8		70-130			
1,2-Dichloroethane	9.38	1.0	µg/L	10.0		93.8		70-130			
1,1-Dichloroethylene	8.61	1.0	µg/L	10.0		86.1		70-130			
cis-1,2-Dichloroethylene	9.97	1.0	µg/L	10.0		99.7		70-130			
trans-1,2-Dichloroethylene	9.90	1.0	µg/L	10.0		99.0		70-130			
1,2-Dichloropropane	9.84	1.0	µg/L	10.0		98.4		70-130			
1,3-Dichloropropane	9.62	0.50	µg/L	10.0		96.2		70-130			
2,2-Dichloropropane	6.88	1.0	µg/L	10.0		**68.8**	*	70-130			L-03, V-05
1,1-Dichloropropene	10.5	2.0	µg/L	10.0		105		70-130			
cis-1,3-Dichloropropene	8.63	0.50	µg/L	10.0		86.3		70-130			
trans-1,3-Dichloropropene	8.35	0.50	µg/L	10.0		83.5		70-130			

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QUALITY CONTROL

SPLP - Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B146181 - SW-846 5030B										
LCS (B146181-BS1)				Prepared: 04/08/16 Analyzed: 04/09/16						
Ethylbenzene	10.3	1.0	µg/L	10.0		103	70-130			
Hexachlorobutadiene	10.7	0.50	µg/L	10.0		107	70-130			
2-Hexanone (MBK)	93.8	10	µg/L	100		93.8	70-130			
Isopropylbenzene (Cumene)	9.87	1.0	µg/L	10.0		98.7	70-130			
p-Isopropyltoluene (p-Cymene)	10.2	1.0	µg/L	10.0		102	70-130			
Methyl tert-Butyl Ether (MTBE)	8.99	1.0	µg/L	10.0		89.9	70-130			
Methylene Chloride	8.45	5.0	µg/L	10.0		84.5	70-130			
4-Methyl-2-pentanone (MIBK)	94.9	10	µg/L	100		94.9	70-130			
Naphthalene	10.9	2.0	µg/L	10.0		109	70-130			
n-Propylbenzene	9.75	1.0	µg/L	10.0		97.5	70-130			
Styrene	9.95	1.0	µg/L	10.0		99.5	70-130			
1,1,1,2-Tetrachloroethane	10.0	1.0	µg/L	10.0		100	70-130			
1,1,2,2-Tetrachloroethane	10.1	0.50	µg/L	10.0		101	70-130			
Tetrachloroethylene	10.4	1.0	µg/L	10.0		104	70-130			
Tetrahydrofuran	9.25	10	µg/L	10.0		92.5	70-130			
Toluene	9.59	1.0	µg/L	10.0		95.9	70-130			
1,2,3-Trichlorobenzene	10.6	5.0	µg/L	10.0		106	70-130			
1,2,4-Trichlorobenzene	10.1	1.0	µg/L	10.0		101	70-130			
1,1,1-Trichloroethane	9.90	1.0	µg/L	10.0		99.0	70-130			
1,1,2-Trichloroethane	9.96	1.0	µg/L	10.0		99.6	70-130			
Trichloroethylene	10.7	1.0	µg/L	10.0		107	70-130			
Trichlorofluoromethane (Freon 11)	9.15	2.0	µg/L	10.0		91.5	70-130			
1,2,3-Trichloropropane	10.3	2.0	µg/L	10.0		103	70-130			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	9.13	1.0	µg/L	10.0		91.3	70-130			
1,2,4-Trimethylbenzene	10.1	1.0	µg/L	10.0		101	70-130			
1,3,5-Trimethylbenzene	9.68	1.0	µg/L	10.0		96.8	70-130			
Vinyl Chloride	9.34	2.0	µg/L	10.0		93.4	70-130			
m+p Xylene	20.1	2.0	µg/L	20.0		101	70-130			
o-Xylene	10.1	1.0	µg/L	10.0		101	70-130			
Surrogate: 1,2-Dichloroethane-d4	*23.6*		µg/L	25.0		94.4	70-130			
Surrogate: Toluene-d8	*24.6*		µg/L	25.0		98.6	70-130			
Surrogate: 4-Bromofluorobenzene	*24.2*		µg/L	25.0		96.7	70-130			

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QUALITY CONTROL

SPLP - Semivolatile Organic Compounds by GC - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B145929 - SW-846 3510C										
Blank (B145929-BLK1)				Prepared: 04/05/16 Analyzed: 04/06/16						
CT ETPH	ND	0.075	mg/L							
Surrogate: o-Terphenyl	*0.0748*		mg/L	0.100		74.8	50-150			
LCS (B145929-BS1)				Prepared: 04/05/16 Analyzed: 04/06/16						
CT ETPH	0.805	0.075	mg/L	1.00		80.5	60-120			
Surrogate: o-Terphenyl	*0.0743*		mg/L	0.100		74.3	50-150			
Matrix Spike (B145929-MS1)		**Source: 16C1301-05RE1**		Prepared: 04/05/16 Analyzed: 04/06/16						
CT ETPH	1.86	0.075	mg/L	1.11	0.853	90.4	50-150			
Surrogate: o-Terphenyl	*0.0893*		mg/L	0.111		80.4	50-150			

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QUALITY CONTROL

SPLP - Metals Analyses - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B145544 - SW-846 3010A										
Blank (B145544-BLK1)				Prepared: 03/31/16 Analyzed: 04/02/16						
Antimony	ND	5.0	µg/L							
Arsenic	ND	2.0	µg/L							
Barium	ND	50	µg/L							
Beryllium	ND	2.0	µg/L							
Cadmium	ND	2.5	µg/L							
Chromium	ND	5.0	µg/L							
Copper	ND	25	µg/L							
Lead	ND	5.0	µg/L							
Nickel	ND	25	µg/L							
Selenium	ND	25	µg/L							
Silver	ND	2.5	µg/L							
Thallium	ND	1.0	µg/L							
Vanadium	ND	25	µg/L							
Zinc	ND	50	µg/L							
LCS (B145544-BS1)				Prepared: 03/31/16 Analyzed: 04/02/16						
Antimony	267	5.0	µg/L	250		107	80-120			
Arsenic	258	2.0	µg/L	250		103	80-120			
Barium	260	50	µg/L	250		104	80-120			
Beryllium	251	2.0	µg/L	250		100	80-120			
Cadmium	259	2.5	µg/L	250		103	80-120			
Chromium	259	5.0	µg/L	250		104	80-120			
Copper	261	25	µg/L	250		104	80-120			
Lead	261	5.0	µg/L	250		105	80-120			
Nickel	254	25	µg/L	250		102	80-120			
Selenium	246	25	µg/L	250		98.4	80-120			
Silver	248	2.5	µg/L	250		99.2	80-120			
Thallium	247	1.0	µg/L	250		99.0	80-120			
Vanadium	257	25	µg/L	250		103	80-120			
Zinc	253	50	µg/L	250		101	80-120			
LCS Dup (B145544-BSD1)				Prepared: 03/31/16 Analyzed: 04/02/16						
Antimony	273	5.0	µg/L	250		109	80-120	2.26	20	
Arsenic	261	2.0	µg/L	250		105	80-120	1.32	20	
Barium	267	50	µg/L	250		107	80-120	2.63	20	
Beryllium	257	2.0	µg/L	250		103	80-120	2.39	20	
Cadmium	266	2.5	µg/L	250		106	80-120	2.73	20	
Chromium	264	5.0	µg/L	250		106	80-120	1.72	20	
Copper	264	25	µg/L	250		105	80-120	1.05	20	
Lead	265	5.0	µg/L	250		106	80-120	1.50	20	
Nickel	257	25	µg/L	250		103	80-120	1.01	20	
Selenium	252	25	µg/L	250		101	80-120	2.37	20	
Silver	255	2.5	µg/L	250		102	80-120	2.72	20	
Thallium	251	1.0	µg/L	250		100	80-120	1.39	20	
Vanadium	262	25	µg/L	250		105	80-120	2.04	20	
Zinc	258	50	µg/L	250		103	80-120	1.77	20	

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QUALITY CONTROL

SPLP - Metals Analyses - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B145544 - SW-846 3010A										
Matrix Spike (B145544-MS1)		**Source: 16C1301-03**		Prepared: 03/31/16 Analyzed: 04/02/16						
Antimony	274	5.0	µg/L	250	3.22	108	75-125			
Arsenic	264	2.0	µg/L	250	ND	106	75-125			
Barium	290	50	µg/L	250	21.9	107	75-125			
Beryllium	259	2.0	µg/L	250	ND	104	75-125			
Cadmium	264	2.5	µg/L	250	ND	106	75-125			
Chromium	270	5.0	µg/L	250	ND	108	75-125			
Copper	287	25	µg/L	250	20.5	107	75-125			
Lead	272	5.0	µg/L	250	7.31	106	75-125			
Nickel	280	25	µg/L	250	ND	112	75-125			
Selenium	254	25	µg/L	250	ND	102	75-125			
Silver	253	2.5	µg/L	250	ND	101	75-125			
Thallium	253	1.0	µg/L	250	ND	101	75-125			
Vanadium	270	25	µg/L	250	ND	108	75-125			
Zinc	266	50	µg/L	250	ND	106	75-125			
Batch B145545 - SW-846 7470A Prep										
Blank (B145545-BLK1)				Prepared: 03/31/16 Analyzed: 04/01/16						
Mercury	ND	0.00010	mg/L							
LCS (B145545-BS1)				Prepared: 03/31/16 Analyzed: 04/01/16						
Mercury	0.00194	0.00010	mg/L	0.00200		97.0	80-120			
LCS Dup (B145545-BSD1)				Prepared: 03/31/16 Analyzed: 04/01/16						
Mercury	0.00194	0.00010	mg/L	0.00200		97.1	80-120	0.141	20	
Matrix Spike (B145545-MS1)		**Source: 16C1301-03**		Prepared: 03/31/16 Analyzed: 04/01/16						
Mercury	0.00201	0.00010	mg/L	0.00200	ND	100	75-125			

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS

Lab Sample ID: B145510-BS1

Date(s) Analyzed: 03/31/2016 03/31/2016

Instrument ID (1):

Instrument ID (2):

GC Column (1): ID: (mm)

GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
Aroclor-1016	1	0.00	0.00	0.00	0.15	
	2	0.00	0.00	0.00	0.14	4
Aroclor-1260	1	0.00	0.00	0.00	0.15	
	2	0.00	0.00	0.00	0.15	1

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS Dup

Lab Sample ID: B145510-BSD1

Date(s) Analyzed: 03/31/2016 03/31/2016

Instrument ID (1):

Instrument ID (2):

GC Column (1): ID: (mm)

GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
Aroclor-1016	1	0.00	0.00	0.00	0.15	
	2	0.00	0.00	0.00	0.15	1
Aroclor-1260	1	0.00	0.00	0.00	0.15	
	2	0.00	0.00	0.00	0.15	2

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS

Lab Sample ID: B145517-BS1

Date(s) Analyzed: 04/01/2016 04/01/2016

Instrument ID (1):

Instrument ID (2):

GC Column (1): ID: (mm)

GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
Aroclor-1016	1	0.00	-0.03	0.03	0.15	
	2	0.00	-0.03	0.03	0.16	4
Aroclor-1260	1	0.00	-0.03	0.03	0.16	
	2	0.00	-0.03	0.03	0.16	1

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS Dup

Lab Sample ID: B145517-BSD1

Date(s) Analyzed: 04/01/2016 04/01/2016

Instrument ID (1):

Instrument ID (2):

GC Column (1): ID: (mm)

GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
Aroclor-1016	1	0.00	-0.03	0.03	0.16	
	2	0.00	-0.03	0.03	0.16	3
Aroclor-1260	1	0.00	-0.03	0.03	0.16	
	2	0.00	-0.03	0.03	0.16	1

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit
DL	Method Detection Limit
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
B	Analyte is found in the associated blank as well as in the sample.
B-07	Data is not affected by elevated level in blank since sample result is >10x level found in the blank.
H-03	Sample received after recommended holding time was exceeded.
L-01	Laboratory fortified blank /laboratory control sample recovery outside of control limits. Data validation is not affected since all results are "not detected" for all samples in this batch for this compound and bias is on the high side.
L-03	Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be biased on the low side.
L-10	The reporting limit verification for the AIHA lead program is outside of control limits for this element. Any reported result at or near the detection limit may be bias on the high side.
MS-07	Matrix spike recovery is outside of control limits. Analysis is in control based on laboratory fortified blank recovery. Possiblity of sample matrix effects that lead to low bias for reported result or non-homogeneous sample aliquot cannot be eliminated.
MS-11	Matrix spike recovery outside of control limits. Possibility of sample matrix effects that lead to a high bias for reported result or non-homogeneous sample aliquots cannot be eliminated.
MS-19	Sample to spike ratio is greater than or equal to 4:1. Spiked amount is not representative of the native amount in the sample. Appropriate or meaningful recoveries cannot be calculated.
R-02	Duplicate RPD is outside of control limits. Outlier can be attributed to sample non-homogeneity encountered during sample prep.
RL-12	Elevated reporting limit due to matrix interference.
V-05	Continuing calibration did not meet method specifications and was biased on the low side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the low side.
V-20	Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
CTDEP ETPH in Soil	
CT ETPH	CT
CTDEP ETPH in Water	
CT ETPH	CT
SW-846 1030 in Soil	
Ignitability	NY,NH,CT,NC,ME,VA
SW-846 6010C-D in Soil	
Antimony	CT,NH,NY,ME,VA,NC
Arsenic	CT,NH,NY,ME,VA,NC
Barium	CT,NH,NY,ME,VA,NC
Beryllium	CT,NH,NY,ME,VA,NC
Cadmium	CT,NH,NY,ME,VA,NC
Chromium	CT,NH,NY,ME,VA,NC
Copper	CT,NH,NY,ME,VA,NC
Lead	CT,NH,NY,AIHA,ME,VA,NC
Nickel	CT,NH,NY,ME,VA,NC
Selenium	CT,NH,NY,ME,VA,NC
Silver	CT,NH,NY,ME,VA,NC
Thallium	CT,NH,NY,ME,VA,NC
Vanadium	CT,NH,NY,ME,VA,NC
Zinc	CT,NH,NY,ME,VA,NC
SW-846 7471B in Soil	
Mercury	CT,NH,NY,NC,ME,VA
SW-846 8015C in Soil	
Gasoline Range Organics (GRO)	NY,VA,NH,NC
Diesel Range Organics	NY,VA,NH,NC
SW-846 8082A in Soil	
Aroclor-1016	CT,NH,NY,ME,NC,VA
Aroclor-1016	CT,NH,NY,NC,ME,VA
Aroclor-1016 [2C]	CT,NH,NY,ME,NC,VA
Aroclor-1221	CT,NH,NY,ME,NC,VA
Aroclor-1221 [2C]	CT,NH,NY,ME,NC,VA
Aroclor-1232	CT,NH,NY,ME,NC,VA
Aroclor-1016 [2C]	CT,NH,NY,NC,ME,VA
Aroclor-1232 [2C]	CT,NH,NY,ME,NC,VA
Aroclor-1242	CT,NH,NY,ME,NC,VA
Aroclor-1242 [2C]	CT,NH,NY,ME,NC,VA
Aroclor-1248	CT,NH,NY,ME,NC,VA
Aroclor-1248 [2C]	CT,NH,NY,ME,NC,VA
Aroclor-1221	CT,NH,NY,NC,ME,VA
Aroclor-1254	CT,NH,NY,ME,NC,VA
Aroclor-1254 [2C]	CT,NH,NY,ME,NC,VA
Aroclor-1260	CT,NH,NY,ME,NC,VA
Aroclor-1260 [2C]	CT,NH,NY,ME,NC,VA
Aroclor-1221 [2C]	CT,NH,NY,NC,ME,VA
Aroclor-1262	NY,NC,VA

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8082A in Soil	
Aroclor-1262 [2C]	NY,NC,VA
Aroclor-1268	NY,NC,VA
Aroclor-1268 [2C]	NY,NC,VA
Aroclor-1232	CT,NH,NY,NC,ME,VA
Aroclor-1232 [2C]	CT,NH,NY,NC,ME,VA
Aroclor-1242	CT,NH,NY,NC,ME,VA
Aroclor-1242 [2C]	CT,NH,NY,NC,ME,VA
Aroclor-1248	CT,NH,NY,NC,ME,VA
Aroclor-1248 [2C]	CT,NH,NY,NC,ME,VA
Aroclor-1254	CT,NH,NY,NC,ME,VA
Aroclor-1254 [2C]	CT,NH,NY,NC,ME,VA
Aroclor-1260	CT,NH,NY,NC,ME,VA
Aroclor-1260 [2C]	CT,NH,NY,NC,ME,VA
Aroclor-1262	NH,NY,NC,ME,VA
Aroclor-1262 [2C]	NH,NY,NC,ME,VA
Aroclor-1268	NH,NY,NC,ME,VA
Aroclor-1268 [2C]	NH,NY,NC,ME,VA
SW-846 8260C in Soil	
Acetone	CT,NH,NY,ME
Acrylonitrile	CT,NH,NY,ME
Benzene	CT,NH,NY,ME
Bromobenzene	NH,NY,ME
Bromodichloromethane	CT,NH,NY,ME
Bromoform	CT,NH,NY,ME
Bromomethane	CT,NH,NY,ME
2-Butanone (MEK)	CT,NH,NY,ME
n-Butylbenzene	CT,NH,NY,ME
sec-Butylbenzene	CT,NH,NY,ME
tert-Butylbenzene	CT,NH,NY,ME
Carbon Disulfide	CT,NH,NY,ME
Carbon Tetrachloride	CT,NH,NY,ME
Chlorobenzene	CT,NH,NY,ME
Chlorodibromomethane	CT,NH,NY,ME
Chloroethane	CT,NH,NY,ME
Chloroform	CT,NH,NY,ME
Chloromethane	CT,NH,NY,ME
2-Chlorotoluene	CT,NH,NY,ME
4-Chlorotoluene	CT,NH,NY,ME
Dibromomethane	NH,NY,ME
1,2-Dichlorobenzene	CT,NH,NY,ME
1,3-Dichlorobenzene	CT,NH,NY,ME
1,4-Dichlorobenzene	CT,NH,NY,ME
Dichlorodifluoromethane (Freon 12)	NY,ME
1,1-Dichloroethane	CT,NH,NY,ME
1,2-Dichloroethane	CT,NH,NY,ME
1,1-Dichloroethylene	CT,NH,NY,ME

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8260C in Soil	
cis-1,2-Dichloroethylene	CT,NH,NY,ME
trans-1,2-Dichloroethylene	CT,NH,NY,ME
1,2-Dichloropropane	CT,NH,NY,ME
1,3-Dichloropropane	NH,NY,ME
2,2-Dichloropropane	NH,NY,ME
1,1-Dichloropropene	NH,NY,ME
cis-1,3-Dichloropropene	CT,NH,NY,ME
trans-1,3-Dichloropropene	CT,NH,NY,ME
Ethylbenzene	CT,NH,NY,ME
Hexachlorobutadiene	NH,NY,ME
2-Hexanone (MBK)	CT,NH,NY,ME
Isopropylbenzene (Cumene)	CT,NH,NY,ME
p-Isopropyltoluene (p-Cymene)	NH,NY
Methyl tert-Butyl Ether (MTBE)	NY
Methylene Chloride	CT,NH,NY,ME
4-Methyl-2-pentanone (MIBK)	CT,NH,NY
Naphthalene	NH,NY,ME
n-Propylbenzene	NH,NY
Styrene	CT,NH,NY,ME
1,1,1,2-Tetrachloroethane	CT,NH,NY,ME
1,1,2,2-Tetrachloroethane	CT,NH,NY,ME
Tetrachloroethylene	CT,NH,NY,ME
Toluene	CT,NH,NY,ME
1,2,4-Trichlorobenzene	NH,NY,ME
1,1,1-Trichloroethane	CT,NH,NY,ME
1,1,2-Trichloroethane	CT,NH,NY,ME
Trichloroethylene	CT,NH,NY,ME
Trichlorofluoromethane (Freon 11)	CT,NH,NY,ME
1,2,3-Trichloropropane	NH,NY,ME
1,2,4-Trimethylbenzene	CT,NH,NY,ME
1,3,5-Trimethylbenzene	CT,NH,NY,ME
Vinyl Chloride	CT,NH,NY,ME
m+p Xylene	CT,NH,NY,ME
o-Xylene	CT,NH,NY,ME
SW-846 8270D in Soil	
Acenaphthene	CT,NY,NH,ME,NC,VA
Acenaphthylene	CT,NY,NH,ME,NC,VA
Anthracene	CT,NY,NH,ME,NC,VA
Benzo(a)anthracene	CT,NY,NH,ME,NC,VA
Benzo(a)pyrene	CT,NY,NH,ME,NC,VA
Benzo(b)fluoranthene	CT,NY,NH,ME,NC,VA
Benzo(g,h,i)perylene	CT,NY,NH,ME,NC,VA
Benzo(k)fluoranthene	CT,NY,NH,ME,NC,VA
Chrysene	CT,NY,NH,ME,NC,VA
Dibenz(a,h)anthracene	CT,NY,NH,ME,NC,VA
Fluoranthene	CT,NY,NH,ME,NC,VA

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8270D in Soil	
Fluorene	CT,NY,NH,ME,NC,VA
Indeno(1,2,3-cd)pyrene	CT,NY,NH,ME,NC,VA
2-Methylnaphthalene	CT,NY,NH,ME,NC,VA
Naphthalene	CT,NY,NH,ME,NC,VA
Phenanthrene	CT,NY,NH,ME,NC,VA
Pyrene	CT,NY,NH,ME,NC,VA

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC	100033	02/1/2018
MA	Massachusetts DEP	M-MA100	06/30/2016
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2017
NY	New York State Department of Health	10899 NELAP	04/1/2017
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2017
RI	Rhode Island Department of Health	LAO00112	12/30/2016
NC	North Carolina Div. of Water Quality	652	12/31/2016
NJ	New Jersey DEP	MA007 NELAP	06/30/2016
FL	Florida Department of Health	E871027 NELAP	06/30/2016
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2016
ME	State of Maine	2011028	06/9/2017
VA	Commonwealth of Virginia	460217	12/14/2016
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2016

16C 1301

CHAIN OF CUSTODY RECORD

con-test® ANALYTICAL LABORATORY
Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com
39 Spruce Street
East longmeadow, MA 01028

Rev 04.05.12

Company Name: Nobis Engineering, Inc.
Address: 18 Chenell Drive, Concord, NH 03301
Attention: Steve Vetere
Project Location: Shelton, CT
Sampled By: Richard Rizza

Telephone: 603-224-4182
Project #: 80108.05
Client PO#:

DATA DELIVERY (check all that apply)
○ FAX ☒ EMAIL ○ WEBSITE
Fax #:
Email: SVetere@nobisenc.com
Format: ☒ PDF ○ EXCEL ○ GIS ○ OTHER ○ "Enhanced Data Package"

Project Proposal Provided? (for billing purposes)
○ yes _____ proposal date

Con-Test Lab ID (laboratory use only)	Client Sample ID / Description	Collection Beginning Date/Time	Collection Ending Date/Time	Composite	Grab	*Matrix Code	Conc Code	VOC	SPLP VOC	PAH	ETPH	PCB	Metals	SPLP Metals	GRO	DRO	RCI	SPLP ETPH
							# of Containers	3	1	1	1	1	1	1	2	1	1	1
							** Preservation	N/I/O	I	I	I	I	I	I	N/I	I	I	I
							***Container Code	V	O	A	A	A	A	A	V	A	A	A
01	Trip Blank	3-28-16 1000	3-28-16 1000		X	O		X										
02	B-1 0-2'	3-28-16 1430	3-28-16 1430	X		S	U		X	X								
03	B-1 2-3.5'	3-28-16 1440	3-28-16 1440	X		S	U	X		X	X	X	X	X				
04	B-1 0-3.5'	3-28-16 1450	3-28-16 1450	X		S	U	X				X	X		X	X	X	
05	B-2 0-1.5'	3-28-16 1520	3-28-16 1520	X		S	U		X					X				X
06	B-3 0-2'	3-28-16 1540	3-28-16 1540	X		S	U		X					X				

ANALYSIS REQUESTED

Dissolved Metals
○ Field Filtered
○ Lab to Filter

***Cont. Code:
A=amber glass
G=glass
P=plastic
ST=sterile
V=vial
S=summa can
T=tedlar bag
O=Other

**Preservation
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other H_2O_2

*Matrix Code:
GW = groundwater
WW = wastewater
DW = drinking water
A = air
S = soil/solid
SL = sludge
O = other Trip Blank

Comments: Returning extra VOA vials and one En Core Sampler.

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Relinquished by: (signature)	Date/Time: 3-29-16 1030
Received by: (signature) 3/29/16	Date/Time: 1230
Relinquished by: (signature) 3/29/16	Date/Time: 1815
Received by: (signature) 4.6 3/29/16	Date/Time: 1815

Turnaround ††
☐ 7-Day
☒ 10-Day
☐ Other
RUSH †
☐ †24-Hr ☐ †48-Hr
☐ †72-Hr ☐ †4-Day
† Require lab approval

Detection Limit Requirements
Massachusetts:
Connecticut:
Other:

Is your project MCP or RCP ?
○ MCP Form Required
○ RCP Form Required
○ MA State DW Form Required PWSID #

NELAC & AIHA-LAP, LLC Accredited
WBE/DBE Certified

TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT.

PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT

Table of Contents

39 Spruce St.
East Longmeadow, MA. 01028
P: 413-525-2332
F: 413-525-6405
www.contestlabs.com

con-test® ANALYTICAL LABORATORY

Sample Receipt Checklist

CLIENT NAME: Nobis Engineering, Inc. **RECEIVED BY**: VP **DATE**: 3/29/2016

1) Was the chain(s) of custody relinquished and signed? **Yes** X **No** ____ **No COC Incl.**

2) Does the chain agree with the samples? **Yes** X **No** ____

If not, explain:

3) Are all the samples in good condition? **Yes** X **No** ____

If not, explain:

4) How were the samples received:

On Ice X Direct from Sampling ____ Ambient ____ In Cooler(s) X

Were the samples received in Temperature Compliance of (2-6°C)? **Yes** X **No** ____ **N/A** ____

Temperature °C by Temp blank ____ Temperature °C by Temp gun 5.1

5) Are there Dissolved samples for the lab to filter? **Yes** ____ **No** X

Who was notified ____ Date ____ Time ____

6) Are there any RUSH or SHORT HOLDING TIME samples? **Yes** ____ **No** X

Who was notified ____ Date ____ Time ____

7) Location where samples are stored: 19

Permission to subcontract samples? Yes No
(Walk-in clients only) if not already approved
Client Signature: ____

8) Do all samples have the proper Acid pH: **Yes** ____ **No** ____ **N/A** X

9) Do all samples have the proper Base pH: **Yes** ____ **No** ____ **N/A** X

10) Was the PC notified of any discrepancies with the CoC vs the samples: **Yes** ____ **N/A** X

Containers received at Con-Test

	# of containers			# of containers
1 Liter Amber	4		16 oz amber	
500 mL Amber			8 oz amber/clear jar	
250 mL Amber (8oz amber)			4 oz amber/clear jar	
1 Liter Plastic			2 oz amber/clear jar	
500 mL Plastic			Plastic Bag / Ziploc	
250 mL plastic	1		SOC Kit	
40 mL Vial - type listed below	3		Perchlorate Kit	
Colisure / bacteria bottle			Flashpoint bottle	
Dissolved Oxygen bottle			Other glass jar	
Encore			Other	

40 mL vials: # HCl ____ # Methanol ____

Bisulfate ____ # DI Water ____

Thiosulfate ____ Unpreserved ____

Time and Date Frozen: **3/29/16 1815**

Login Sample Receipt Checklist

(Rejection Criteria Listing - Using Sample Acceptance Policy)

Any False statement will be brought to the attention of Client

Question	Answer (True/False) T/F/NA	Comment
1) The cooler's custody seal, if present, is intact.	NA	
2) The cooler or samples do not appear to have been compromised or tampered with.	T	
3) Samples were received on ice.	T	
4) Cooler Temperature is acceptable.	T	
5) Cooler Temperature is recorded.	T	
6) COC is filled out in ink and legible.	T	
7) COC is filled out with all pertinent information.	T	
8) Field Sampler's name present on COC.	T	
9) There are no discrepancies between the sample IDs on the container and the COC.	T	
10) Samples are received within Holding Time.	T	
11) Sample containers have legible labels.	T	
12) Containers are not broken or leaking.	T	
13) Air Cassettes are not broken/open.	NA	
14) Sample collection date/times are provided.	T	
15) Appropriate sample containers are used.	T	
16) Proper collection media used.	T	
17) No headspace sample bottles are completely filled.	T	
18) There is sufficient volume for all requsted analyses, including any requested MS/MSDs.	T	
19) Trip blanks provided if applicable.	NA	
20) VOA sample vials do not have head space or bubble is <6mm (1/4") in diameter.	NA	
21) Samples do not require splitting or compositing.	T	

Who notified of False statements? **Date/Time:**

Doc #277 Rev. 4 August 2013 **Log-In Technician Initials:** VP **Date/Time: 3/29/16 1815**

D:\HPCHEM\1\DATA\A040116.SEC\A0401007.D

CT ETPH DISCRIMINATION CHECK

Date Acquired	4/1/16
Data File Name	A0401007.D
Sample Name	ETPH 1500
Instrument Name	5890DFID

Compound	Ret Time	Target Response	Average Response	*%D +/- 20
c - 9	1.23	557330	577849	-4
c - 10	1.58	566069	577849	-2
c - 12	2.31	574555	577849	-1
c - 14	2.98	577212	577849	0
c - 16	3.58	586535	577849	2
c - 18	4.19	579175	577849	0
o-Terphenyl	4.47	644398	577849	
c - 20	4.80	589154	577849	2
c - 22	5.31	601426	577849	4
c - 24	5.75	563860	577849	-2
c - 26	6.14	598317	577849	4
c - 28	6.50	591020	577849	2
c - 30	6.84	588867	577849	2
c - 32	7.15	569961	577849	-1
c - 34	7.44	568924	577849	-2
c - 36	7.76	555326	577849	-4

* One compound allowed %D <= 50%

Samples

16C1301-03RE1
16C1454-01

D:\HPCHEM\1\DATA\A040616\A0406006.D

CT ETPH DISCRIMINATION CHECK

Date Acquired	4/6/16
Data File Name	A0406006.D
Sample Name	ETPH 1500
Instrument Name	5890DFID

Compound	Ret Time	Target Response	Average Response	*%D +/- 20
c - 9	1.15	438799	450118	-3
c - 10	1.49	423358	450118	-6
c - 12	2.23	443798	450118	-1
c - 14	2.91	446031	450118	-1
c - 16	3.51	451883	450118	0
c - 18	4.10	446057	450118	-1
o-Terphenyl	4.38	491090	450118	
c - 20	4.72	453605	450118	1
c - 22	5.24	459435	450118	2
c - 24	5.68	432220	450118	-4
c - 26	6.08	462500	450118	3
c - 28	6.44	470005	450118	4
c - 30	6.77	482006	450118	7
c - 32	7.09	481735	450118	7
c - 34	7.38	468705	450118	4
c - 36	7.68	391632	450118	-13

* One compound allowed %D <= 50%

Samples

16C1301-05RE1

D:\HPCHEM\1\DATA\A041016.SEC\A0410035.D

CT ETPH DISCRIMINATION CHECK

Date Acquired	4/10/16
Data File Name	A0410035.D
Sample Name	ETPH 1500
Instrument Name	5890DFID

Compound	Ret Time	Target Response	Average Response	*%D +/- 20
c - 9	1.23	508444	525985	-3
c - 10	1.58	511454	525985	-3
c - 12	2.31	516089	525985	-2
c - 14	2.98	515983	525985	-2
c - 16	3.58	522013	525985	-1
c - 18	4.19	515504	525985	-2
o-Terphenyl	4.47	576613	525985	
c - 20	4.80	525788	525985	0
c - 22	5.30	538333	525985	2
c - 24	5.75	505767	525985	-4
c - 26	6.14	536106	525985	2
c - 28	6.50	531397	525985	1
c - 30	6.83	539380	525985	3
c - 32	7.15	533952	525985	2
c - 34	7.44	545003	525985	4
c - 36	7.75	544556	525985	4

* One compound allowed %D <= 50%

Samples

16D0271-01
16D0271-02
16D0271-03
16D0271-04
16D0271-05
16D0271-06
16D0271-07
16D0271-08
16D0271-09
16D0271-10
16D0271-11
16D0272-01
16D01301-03RE1@5X

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

Laboratory Name: Con-Test Analytical Laboratory

Client: Nobis Engineering - NH

Project Location: Shelton, CT

Project Number: 16C1301

Laboratory Sample ID(s):
16C1301-01 thru 16C1301-06

Sample Date(s):
03/28/2016

List RCP Methods Used:

CTDEP ETPH, SW-846 1312, SW-846 6010C-D, SW-846 6020A-B, SW-846 7470A, SW-846 7471B, SW-846 8082A, SW-846 8260C, SW-846 8270D

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 CTDEP method-specific Reasonable Confidence Protocol documents?	☑ Yes ☐ No
1A	Were the method specified preservation and holding time requirements met?	☑ Yes ☐ No
1B	VPH and EPH Methods only: Was the VPH and EPH method conducted without significant modifications (see Section 11.3 of respective RCP methods)?	☐ Yes ☐ No ☑ N/A
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 ☐ N/A
4	Were all QA/QC performance criteria specified in the CTDEP 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
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
7	Are project-specific matrix spikes and laboratory duplicates included in this data set?	☑ Yes ☐ No

Notes: For all questions to which the response was "No" (with the exception of question #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."
This form may not be altered and all questions must be answered.

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: **Position:** **Laboratory Manager**

Printed Name: **Daren J. Damboragian** **Date:** **04/13/16**

Name of Laboratory: **Con-Test Analytical Laboratory**

This certification form is to be used for RCP methods only.

APPENDIX E

Nobis
Engineering a Sustainable Future

April 22, 2016
Nobis File No. 80108

Mr. James Byrne
EPA-New England Region I
5 Post Office Square
Suite 100, Mailcode OSRR07-4
Boston, MA 02109-3912

Re: Contract No.: EP-S1-06-03
Task Order No. 0108-SI-BZ-0100
Case No. 0160S, Laboratory Report No.: 16C1301
Con-Test Analytical Laboratory, East Longmeadow, Massachusetts
Former Axton Cross Site
Shelton, Connecticut

Tier 1 Modified Organic and Inorganic Data Review

VOCs, SPLP VOCs, PAHs, Metals, SPLP Metals, ETPH, and PCBs:
4/Soils: B-1 0-2', B-1 2-3.5', B-2 0-1.5', and B-3 0-2'
1/Trip Blank: Trip Blank

Dear Mr. Byrne:

Nobis Engineering, Inc. performed a Tier 1 Modified data review on the organic and inorganic analytical data for the samples listed above. The samples were collected by Nobis at the Former Axton Cross Site located in Shelton, Connecticut. The samples were analyzed for volatile organic compounds (VOCs), synthetic precipitation leaching procedure (SPLP) VOCs, polycyclic aromatic hydrocarbons (PAHs), metals, SPLP metals, extractable total petroleum hydrocarbons (ETPH), and polychlorinated biphenyls (PCBs). See the included Data Summary Table and chain-of-custody for samples selected for each analysis. Additionally, one sample (B-1 0-3.5') was analyzed for waste disposal parameters but was not subject to data review. The laboratory performed testing according to Connecticut Reasonable Confidence Protocols (CT RCP) and to Nobis technical specification RAC2-086.

The Tier Modified data review was performed in accordance with the EPA New England Environmental Data Review Supplement for Regional Data Review Elements and Superfund Specific Guidance/Procedures (April 2013); USEPA National Functional Guidelines for Inorganic Superfund Data Review (August 2014); USEPA National Functional Guidelines for Superfund Organic Methods Data Review (August 2014) and the Field Task Work Plan (FTWP) and Quality Assurance Project Plan Addendum (QAPPA) for the Targeted Brownfields Assessment (TBA) for the Former Axton Cross Site (December 2015).

The data were evaluated based on the following parameters:

* • Overall Evaluation of Data and Potential Usability Issues
* • Data Completeness

Nobis Engineering, Inc.
585 Middlesex Street
Lowell, MA 01851
T (978) 683-0891

*	•	Preservation and Technical Holding Times
	•	Instrument Calibration
*	•	Blanks
	•	Laboratory Control Samples (LCS)
	•	Laboratory Duplicates
NA	•	Field Duplicates
	•	Matrix Spike Analysis
*	•	Surrogate Compounds
NA	•	Performance Evaluation Sample Results
*	•	Reported Quantitation Limits

* All criteria were met for this parameter.
NA – Not applicable.

Overall Evaluation of Data and Potential Usability Issues

The objectives of the soil investigation activities at the site are to assess the soil in the "cap extension area" to determine the next phase of remediation necessary to meet site closure requirements and initiate re-use of the properties. Due to the presence of VOCs in soil and groundwater in the areas where building construction is planned, soil vapor analyses are proposed to assess the soil presence and absence of VOCs in locations of building footprints. In general the data will be used to fill gaps identified during ongoing environmental assessment and remediation activities being conducted by the City of Shelton. The data will be used to support site closure in accordance with Connecticut RSRs.

The data meet the project quality criteria and can be used without restriction except as summarized below. The attachments provide details and supporting documentation.

VOCs:
Results did not require qualification.

SPLP VOCs:
Results were qualified for calibration criteria exceedances and laboratory control sample recovery failures.

PAHs:
Results did not require qualification.

Metals:
Metals results were qualified for matrix spike recovery exceedances and laboratory duplicate imprecision.

SPLP Metals:
Results did not require qualification.

PCBs:
Results did not require qualification.

Please contact Gail DeRuzzo at (978) 703-6021 or gderuzzo@nobiseng.com should you have any questions or comments regarding this information.

Sincerely,

NOBIS ENGINEERING, INC.

Gail DeRuzzo
Lead Chemist

Tables: Data Summary Tables – Tier 1 Mod Data Review
Data Qualification Actions Table

Attachments: Data Review Checklist
COCs

DATA SUMMARY TABLE
Soil Sample Results - March 2016
Former Axton Cross Site
Shelton, Connecticut

Parameter	RSR DEC	RSR PMC			SAMPLING LOCATION			
		GA PMC	GA GWPC SPLP	GA PMC SPLP	B-1 0-2'	B-1 0-3.5'	B-1 2-3.5'	B-2 0-1.5'
Sampling Date			~	~	3/28/2016 2:30:00 PM	3/28/2016 2:50:00 PM	3/28/2016 2:40:00 PM	3/28/2016 3:20:00 PM
Sample Depth			~	~	0-2 Feet	0-3.5 Feet	2-3.5 Feet	0-1.5 Feet
Laboratory Report Number			~	~	16C1301	16C1301	16C1301	16C1301
CTDEP ETPH (mg/Kg dry)			~	~				
ETPH	500	500	~	~	NT	NT	130	NT
CTDEP ETPH (mg/L) 1312 SPLP EXT			~	~				
ETPH	~	~	0.25	~	NT	NT	NT	**0.85**
SW-846 6010C-D (mg/Kg dry) Metals Digestion			~	~				
ANTIMONY	27	~	~	~	NT	14	ND (3.4) J	NT
Arsenic	10	~	~	~	NT	ND (3.1)	ND (3.4) J	NT
Barium	4700	~	~	~	NT	160	300	NT
BERYLLIUM	2	~	~	~	NT	0.72	2.4	NT
Cadmium	34	~	~	~	NT	1.8	1.2	NT
Chromium	~	~	~	~	NT	78	23	NT
COPPER	2500	~	~	~	NT	530	600 J	NT
LEAD	400	~	~	~	NT	390	160	NT
Nickel	1400	~	~	~	NT	61	29	NT
Selenium	340	~	~	~	NT	ND (6.1)	ND (6.9) J	NT
Silver	340	~	~	~	NT	ND (0.61)	ND (0.69)	NT
THALLIUM	5.4	~	~	~	NT	ND (3.1)	ND (3.4)	NT
Vanadium	470	~	~	~	NT	50	27	NT
Zinc	20000	~	~	~	NT	290	160 J	NT
SW-846 7471B (mg/Kg dry) Metals Digestion			~	~				
Mercury	20	~	~	~	NT	0.32	0.060	NT
SW-846 6020A-B (µg/L) 1312 SPLP EXT			~	~				
ANTIMONY	~	~	~	6	NT	NT	ND (5.0)	ND (5.0)
Arsenic	~	~	~	10	NT	NT	ND (2.0)	3.4
Barium	~	~	~	1000	NT	NT	ND (50)	ND (50)
BERYLLIUM	~	~	~	4	NT	NT	ND (2.0)	ND (2.0)
Cadmium	~	~	~	5	NT	NT	ND (2.5)	ND (2.5)
Chromium	~	~	~	50	NT	NT	ND (5.0)	ND (5.0)
COPPER	~	~	~	1300	NT	NT	ND (25)	ND (25)
LEAD	~	~	~	15	NT	NT	7.3	7.3
Nickel	~	~	~	100	NT	NT	ND (25)	ND (25)
Selenium	~	~	~	50	NT	NT	ND (25)	ND (25)
Silver	~	~	~	36	NT	NT	ND (2.5)	ND (2.5)
THALLIUM	~	~	~	5	NT	NT	ND (1.0)	ND (1.0)
Vanadium	~	~	~	50	NT	NT	ND (25)	ND (25)
Zinc	~	~	~	5000	NT	NT	ND (50)	ND (50)
SW-846 7470A (mg/L) 1312 SPLP EXT			~	~				
Mercury	~	~	~	0.002	NT	NT	ND (0.00010)	ND (0.00010)

DATA SUMMARY TABLE
Soil Sample Results - March 2016
Former Axton Cross Site
Shelton, Connecticut

Parameter	RSR DEC	RSR PMC			SAMPLING LOCATION			
		GA PMC	GA GWPC SPLP	GA PMC SPLP	B-1 0-2'	B-1 0-3.5'	B-1 2-3.5'	B-2 0-1.5'
Sampling Date			~	~	3/28/2016 2:30:00 PM	3/28/2016 2:50:00 PM	3/28/2016 2:40:00 PM	3/28/2016 3:20:00 PM
Sample Depth			~	~	0-2 Feet	0-3.5 Feet	2-3.5 Feet	0-1.5 Feet
Laboratory Report Number			~	~	16C1301	16C1301	16C1301	16C1301
SW-846 8082A (mg/Kg dry)			~	~				
PCB 1016	1	~	~	~	NT	ND (0.13)	ND (0.14)	NT
PCB 1221	1	~	~	~	NT	ND (0.13)	ND (0.14)	NT
PCB 1232	1	~	~	~	NT	ND (0.13)	ND (0.14)	NT
PCB 1242	1	~	~	~	NT	ND (0.13)	ND (0.14)	NT
PCB 1248	1	~	~	~	NT	ND (0.13)	ND (0.14)	NT
PCB 1254	1	~	~	~	NT	ND (0.13)	ND (0.14)	NT
PCB 1260	1	~	~	~	NT	ND (0.13)	ND (0.14)	NT
PCB 1262	1	~	~	~	NT	ND (0.13)	ND (0.14)	NT
PCB 1268	1	~	~	~	NT	ND (0.13)	ND (0.14)	NT
SW-846 8260C (mg/Kg dry)			~	~				
ACETONE	500	14	~	~	NT	ND (0.16)	ND (0.18)	NT
ACRYLONITRILE	1.1	0.01	~	~	NT	ND (0.0098)	**ND (0.011) ***	NT
BENZENE	21	0.02	~	~	NT	ND (0.0033)	ND (0.0037)	NT
BROMOBENZENE	~	~	~	~	NT	ND (0.0033)	ND (0.0037)	NT
BROMODICHLOROMETHANE	9.9	0.011	~	~	NT	ND (0.0033)	ND (0.0037)	NT
BROMOFORM	78	0.08	~	~	NT	ND (0.0033)	ND (0.0037)	NT
BROMOMETHANE	95	0.2	~	~	NT	ND (0.016)	ND (0.018)	NT
2-BUTANONE (MEK)	500	8	~	~	NT	ND (0.065)	ND (0.074)	NT
N-BUTYLBENZENE	500	1.4	~	~	NT	ND (0.0033)	ND (0.0037)	NT
SEC-BUTYLBENZENE	500	1.4	~	~	NT	ND (0.0033)	ND (0.0037)	NT
TERT-BUTYLBENZENE	500	1.4	~	~	NT	ND (0.0033)	ND (0.0037)	NT
CARBON DISULFIDE	500	14	~	~	NT	ND (0.0098)	ND (0.011)	NT
CARBON TETRACHLORIDE	4.7	0.1	~	~	NT	ND (0.0033)	ND (0.0037)	NT
CHLOROBENZENE	500	2	~	~	NT	ND (0.0033)	ND (0.0037)	NT
CHLORODIBROMOMETHANE	7.3	0.01	~	~	NT	ND (0.0016)	ND (0.0018)	NT
CHLOROETHANE	~	~	~	~	NT	ND (0.033)	ND (0.037)	NT
CHLOROFORM	100	0.12	~	~	NT	0.016	0.038	NT
CHLOROMETHANE	47	0.054	~	~	NT	ND (0.016)	ND (0.018)	NT
2-CHLOROTOLUENE	~	~	~	~	NT	ND (0.0033)	ND (0.0037)	NT
4-CHLOROTOLUENE	~	~	~	~	NT	ND (0.0033)	ND (0.0037)	NT
1,2-DIBROMO-3-CHLOROPROPANE	0.44	~	~	~	NT	ND (0.0033)	ND (0.0037)	NT
1,2-DIBROMOETHANE (EDB)	0.007	0.01	~	~	NT	ND (0.0016)	ND (0.0018)	NT
DIBROMOMETHANE	~	~	~	~	NT	ND (0.0033)	ND (0.0037)	NT
1,2-DICHLOROBENZENE	500	3.1	~	~	NT	ND (0.0033)	ND (0.0037)	NT
1,3-DICHLOROBENZENE	500	12	~	~	NT	ND (0.0033)	ND (0.0037)	NT
1,4-DICHLOROBENZENE	26	1.5	~	~	NT	ND (0.0033)	ND (0.0037)	NT

DATA SUMMARY TABLE
Soil Sample Results - March 2016
Former Axton Cross Site
Shelton, Connecticut

Parameter	RSR DEC	RSR PMC			SAMPLING LOCATION			
		GA PMC	GA GWPC SPLP	GA PMC SPLP	B-1 0-2'	B-1 0-3.5'	B-1 2-3.5'	B-2 0-1.5'
Sampling Date			~	~	3/28/2016 2:30:00 PM	3/28/2016 2:50:00 PM	3/28/2016 2:40:00 PM	3/28/2016 3:20:00 PM
Sample Depth			~	~	0-2 Feet	0-3.5 Feet	2-3.5 Feet	0-1.5 Feet
Laboratory Report Number			~	~	16C1301	16C1301	16C1301	16C1301
TRANS-1,4-DICHLORO-2-BUTENE	~	~	~	~	NT	ND (0.0065)	ND (0.0074)	NT
DICHLORODIFLUOROMETHANE	~	~	~	~	NT	ND (0.033)	ND (0.037)	NT
1,1-DICHLOROETHANE	500	1.4	~	~	NT	ND (0.0033)	ND (0.0037)	NT
1,2-DICHLOROETHANE	6.7	0.02	~	~	NT	ND (0.0033)	ND (0.0037)	NT
1,1-DICHLOROETHYLENE	1	0.14	~	~	NT	ND (0.0065)	ND (0.0074)	NT
CIS-1,2-DICHLOROETHYLENE	500	1.4	~	~	NT	ND (0.0033)	ND (0.0037)	NT
TRANS-1,2-DICHLOROETHYLENE	500	2	~	~	NT	ND (0.0033)	ND (0.0037)	NT
1,2-DICHLOROPROPANE	9	0.1	~	~	NT	ND (0.0033)	ND (0.0037)	NT
1,3-DICHLOROPROPANE	~	~	~	~	NT	ND (0.0016)	ND (0.0018)	NT
2,2-DICHLOROPROPANE	~	~	~	~	NT	ND (0.0033)	ND (0.0037)	NT
1,1-DICHLOROPROPENE	~	~	~	~	NT	ND (0.0033)	ND (0.0037)	NT
CIS-1,3-DICHLOROPROPENE	3.4	0.01	~	~	NT	ND (0.0065)	ND (0.0074)	NT
TRANS-1,3-DICHLOROPROPENE	3.4	0.01	~	~	NT	ND (0.0016)	ND (0.0018)	NT
ETHYLBENZENE	500	10.1	~	~	NT	ND (0.0033)	ND (0.0037)	NT
HEXACHLOROBUTADIENE	7.9	1	~	~	NT	ND (0.0033)	ND (0.0037)	NT
2-HEXANONE	~	~	~	~	NT	ND (0.033)	ND (0.037)	NT
ISOPROPYLBENZENE	500	0.6	~	~	NT	ND (0.0033)	ND (0.0037)	NT
P-ISOPROPYLTOLUENE	500	0.6	~	~	NT	ND (0.0033)	ND (0.0037)	NT
MTBE	500	2	~	~	NT	ND (0.0065)	ND (0.0074)	NT
METHYLENE CHLORIDE	82	0.1	~	~	NT	ND (0.033)	ND (0.037)	NT
MIBK	500	7	~	~	NT	ND (0.033)	ND (0.037)	NT
NAPHTHALENE	1000	5.6	~	~	NT	ND (0.0065)	ND (0.0074)	NT
N-PROPYLBENZENE	500	1.4	~	~	NT	ND (0.0033)	ND (0.0037)	NT
STYRENE	500	2	~	~	NT	ND (0.0033)	ND (0.0037)	NT
1,1,1,2-TETRACHLOROETHANE	24	0.02	~	~	NT	ND (0.0033)	ND (0.0037)	NT
1,1,2,2-TETRACHLOROETHANE	3.1	0.01	~	~	NT	ND (0.0016)	ND (0.0018)	NT
TETRACHLOROETHYLENE	12	0.1	~	~	NT	ND (0.0033)	ND (0.0037)	NT
TETRAHYDROFURAN	~	~	~	~	NT	ND (0.016)	ND (0.018)	NT
TOLUENE	500	20	~	~	NT	ND (0.0033)	ND (0.0037)	NT
1,2,3-TRICHLOROBENZENE	~	~	~	~	NT	ND (0.0033)	ND (0.0037)	NT
1,2,4-TRICHLOROBENZENE	680	1.4	~	~	NT	ND (0.0033)	ND (0.0037)	NT
1,1,1-TRICHLOROETHANE	500	4	~	~	NT	ND (0.0033)	ND (0.0037)	NT
1,1,2-TRICHLOROETHANE	11	0.1	~	~	NT	ND (0.0033)	ND (0.0037)	NT
TRICHLOROETHYLENE	56	0.1	~	~	NT	0.056	**0.12**	NT
TRICHLOROFLUOROMETHANE	500	26	~	~	NT	ND (0.016)	ND (0.018)	NT
1,2,3-TRICHLOROPROPANE	~	~	~	~	NT	ND (0.0033)	ND (0.0037)	NT
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	~	~	~	~	NT	ND (0.016)	ND (0.018)	NT

DATA SUMMARY TABLE
Soil Sample Results - March 2016
Former Axton Cross Site
Shelton, Connecticut

Parameter	RSR DEC	RSR PMC			SAMPLING LOCATION			
		GA PMC	GA GWPC SPLP	GA PMC SPLP	B-1 0-2'	B-1 0-3.5'	B-1 2-3.5'	B-2 0-1.5'
Sampling Date			~	~	3/28/2016 2:30:00 PM	3/28/2016 2:50:00 PM	3/28/2016 2:40:00 PM	3/28/2016 3:20:00 PM
Sample Depth			~	~	0-2 Feet	0-3.5 Feet	2-3.5 Feet	0-1.5 Feet
Laboratory Report Number			~	~	16C1301	16C1301	16C1301	16C1301
1,2,4-TRIMETHYLBENZENE	500	7	~	~	NT	ND (0.0033)	ND (0.0037)	NT
1,3,5-TRIMETHYLBENZENE	500	7	~	~	NT	ND (0.0033)	ND (0.0037)	NT
VINYL CHLORIDE	0.32	0.04	~	~	NT	ND (0.016)	ND (0.018)	NT
M/P-XYLENE	500	19.5	~	~	NT	ND (0.0065)	ND (0.0074)	NT
O-XYLENE	500	19.5	~	~	NT	ND (0.0033)	ND (0.0037)	NT
SW-846 8260C (µg/L) 1312 SPLP ZHE			~	~				
ACETONE	~	~	700	~	ND (50)	NT	NT	ND (50)
ACRYLONITRILE	~	~	0.5	~	**ND (5.0) ***	NT	NT	**ND (5.0) ***
BENZENE	~	~	1	~	ND (1.0)	NT	NT	ND (1.0)
BROMOBENZENE	~	~	~	~	ND (1.0)	NT	NT	ND (1.0)
BROMODICHLOROMETHANE	~	~	0.56	~	ND (0.50)	NT	NT	ND (0.50)
BROMOFORM	~	~	4	~	ND (2.0) J-	NT	NT	ND (2.0)
BROMOMETHANE	~	~	9.8	~	ND (2.0)	NT	NT	ND (2.0)
2-BUTANONE (MEK)	~	~	400	~	ND (20)	NT	NT	ND (20)
N-BUTYLBENZENE	~	~	61	~	ND (1.0)	NT	NT	ND (1.0)
SEC-BUTYLBENZENE	~	~	61	~	ND (1.0)	NT	NT	ND (1.0)
TERT-BUTYLBENZENE	~	~	61	~	ND (1.0)	NT	NT	ND (1.0)
CARBON DISULFIDE	~	~	700	~	ND (4.0)	NT	NT	ND (4.0)
CARBON TETRACHLORIDE	~	~	5	~	ND (5.0)	NT	NT	ND (5.0)
CHLOROBENZENE	~	~	100	~	ND (1.0)	NT	NT	ND (1.0)
CHLORODIBROMOMETHANE	~	~	0.5	~	ND (0.50)	NT	NT	ND (0.50)
CHLOROETHANE	~	~	~	~	ND (2.0)	NT	NT	ND (2.0)
CHLOROFORM	~	~	6	~	ND (2.0)	NT	NT	ND (2.0)
CHLOROMETHANE	~	~	2.7	~	ND (2.0)	NT	NT	ND (2.0)
2-CHLOROTOLUENE	~	~	~	~	ND (1.0)	NT	NT	ND (1.0)
4-CHLOROTOLUENE	~	~	~	~	ND (1.0)	NT	NT	ND (1.0)
1,2-DIBROMO-3-CHLOROPROPANE	~	~	~	~	ND (5.0) J-	NT	NT	ND (5.0)
1,2-DIBROMOETHANE (EDB)	~	~	0.05	~	**ND (0.50) ***	NT	NT	**ND (0.50) ***
DIBROMOMETHANE	~	~	~	~	ND (1.0)	NT	NT	ND (1.0)
1,2-DICHLOROBENZENE	~	~	600	~	ND (1.0)	NT	NT	ND (1.0)
1,3-DICHLOROBENZENE	~	~	600	~	ND (1.0)	NT	NT	ND (1.0)
1,4-DICHLOROBENZENE	~	~	75	~	ND (1.0)	NT	NT	ND (1.0)
TRANS-1,4-DICHLORO-2-BUTENE	~	~	~	~	ND (2.0)	NT	NT	ND (2.0)
DICHLORODIFLUOROMETHANE	~	~	~	~	ND (2.0)	NT	NT	ND (2.0)
1,1-DICHLOROETHANE	~	~	70	~	ND (1.0)	NT	NT	ND (1.0)
1,2-DICHLOROETHANE	~	~	1	~	ND (1.0)	NT	NT	ND (1.0)
1,1-DICHLOROETHYLENE	~	~	7	~	ND (1.0)	NT	NT	ND (1.0)

DATA SUMMARY TABLE
Soil Sample Results - March 2016
Former Axton Cross Site
Shelton, Connecticut

Parameter	RSR DEC	RSR PMC			SAMPLING LOCATION			
		GA PMC	GA GWPC SPLP	GA PMC SPLP	B-1 0-2'	B-1 0-3.5'	B-1 2-3.5'	B-2 0-1.5'
Sampling Date			~	~	3/28/2016 2:30:00 PM	3/28/2016 2:50:00 PM	3/28/2016 2:40:00 PM	3/28/2016 3:20:00 PM
Sample Depth			~	~	0-2 Feet	0-3.5 Feet	2-3.5 Feet	0-1.5 Feet
Laboratory Report Number			~	~	16C1301	16C1301	16C1301	16C1301
CIS-1,2-DICHLOROETHYLENE	~	~	70	~	ND (1.0)	NT	NT	ND (1.0)
TRANS-1,2-DICHLOROETHYLENE	~	~	100	~	ND (1.0)	NT	NT	ND (1.0)
1,2-DICHLOROPROPANE	~	~	5	~	ND (1.0)	NT	NT	ND (1.0)
1,3-DICHLOROPROPANE	~	~	~	~	ND (0.50)	NT	NT	ND (0.50)
2,2-DICHLOROPROPANE	~	~	~	~	ND (1.0)	NT	NT	ND (1.0) J-
1,1-DICHLOROPROPENE	~	~	~	~	ND (2.0)	NT	NT	ND (2.0)
CIS-1,3-DICHLOROPROPENE	~	~	0.5	~	ND (0.50)	NT	NT	ND (0.50)
TRANS-1,3-DICHLOROPROPENE	~	~	0.5	~	ND (0.50)	NT	NT	ND (0.50)
ETHYLBENZENE	~	~	700	~	ND (1.0)	NT	NT	ND (1.0)
HEXACHLOROBUTADIENE	~	~	0.45	~	**ND (0.50) ***	NT	NT	**ND (0.50) ***
2-HEXANONE	~	~	~	~	ND (10)	NT	NT	ND (10)
ISOPROPYLBENZENE	~	~	30	~	ND (1.0)	NT	NT	ND (1.0)
P-ISOPROPYLTOLUENE	~	~	30	~	ND (1.0)	NT	NT	ND (1.0)
MTBE	~	~	70	~	ND (1.0)	NT	NT	ND (1.0)
METHYLENE CHLORIDE	~	~	5	~	ND (5.0)	NT	NT	ND (5.0)
MIBK	~	~	350	~	ND (10)	NT	NT	ND (10)
NAPHTHALENE	~	~	280	~	60	NT	NT	ND (2.0)
N-PROPYLBENZENE	~	~	61	~	ND (1.0)	NT	NT	ND (1.0)
STYRENE	~	~	100	~	ND (1.0)	NT	NT	ND (1.0)
1,1,1,2-TETRACHLOROETHANE	~	~	1	~	ND (1.0)	NT	NT	ND (1.0)
1,1,2,2-TETRACHLOROETHANE	~	~	0.5	~	ND (0.50)	NT	NT	ND (0.50)
TETRACHLOROETHYLENE	~	~	5	~	ND (1.0)	NT	NT	ND (1.0)
TETRAHYDROFURAN	~	~	~	~	ND (10)	NT	NT	ND (10)
TOLUENE	~	~	1000	~	ND (1.0)	NT	NT	ND (1.0)
1,2,3-TRICHLOROBENZENE	~	~	~	~	ND (5.0)	NT	NT	ND (5.0)
1,2,4-TRICHLOROBENZENE	~	~	70	~	ND (1.0)	NT	NT	ND (1.0)
1,1,1-TRICHLOROETHANE	~	~	200	~	ND (1.0)	NT	NT	ND (1.0)
1,1,2-TRICHLOROETHANE	~	~	5	~	ND (1.0)	NT	NT	ND (1.0)
TRICHLOROETHYLENE	~	~	5	~	1.4	NT	NT	3.3
TRICHLOROFLUOROMETHANE	~	~	1300	~	ND (2.0)	NT	NT	ND (2.0)
1,2,3-TRICHLOROPROPANE	~	~	~	~	ND (2.0)	NT	NT	ND (2.0)
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	~	~	~	~	ND (1.0)	NT	NT	ND (1.0)
1,2,4-TRIMETHYLBENZENE	~	~	350	~	ND (1.0)	NT	NT	ND (1.0)
1,3,5-TRIMETHYLBENZENE	~	~	350	~	ND (1.0)	NT	NT	ND (1.0)
VINYL CHLORIDE	~	~	2	~	ND (2.0)	NT	NT	ND (2.0)
M/P-XYLENE	~	~	530	~	ND (2.0)	NT	NT	ND (2.0)
O-XYLENE	~	~	530	~	ND (1.0)	NT	NT	ND (1.0)

DATA SUMMARY TABLE
Soil Sample Results - March 2016
Former Axton Cross Site
Shelton, Connecticut

Parameter	RSR DEC	RSR PMC			SAMPLING LOCATION			
		GA PMC	GA GWPC SPLP	GA PMC SPLP	B-1 0-2'	B-1 0-3.5'	B-1 2-3.5'	B-2 0-1.5'
Sampling Date			~	~	3/28/2016 2:30:00 PM	3/28/2016 2:50:00 PM	3/28/2016 2:40:00 PM	3/28/2016 3:20:00 PM
Sample Depth			~	~	0-2 Feet	0-3.5 Feet	2-3.5 Feet	0-1.5 Feet
Laboratory Report Number			~	~	16C1301	16C1301	16C1301	16C1301
SW-846 8270D (mg/Kg dry)			~	~				
ACENAPHTHENE	1000	8.4	~	~	ND (0.44)	NT	ND (0.24)	NT
ACENAPHTHYLENE	1000	8.4	~	~	0.58	NT	0.37	NT
ANTHRACENE	1000	40	~	~	ND (0.44)	NT	0.59	NT
BENZO(A)ANTHRACENE	1	1	~	~	**1.5**	NT	0.88	NT
BENZO(A)PYRENE	1	1	~	~	**1.6**	NT	0.84	NT
BENZO(B)FLUORANTHENE	1	1	~	~	**2.3**	NT	**1.1**	NT
BENZO(G,H,I)PERYLENE	1000	4.2	~	~	1.1	NT	0.40	NT
BENZO(K)FLUORANTHENE	8.4	1	~	~	0.85	NT	0.42	NT
CHRYSENE	84	1	~	~	**1.7**	NT	0.80	NT
DIBENZ(A,H)ANTHRACENE	1	1	~	~	ND (0.44)	NT	ND (0.24)	NT
FLUORANTHENE	1000	5.6	~	~	3.4	NT	2.2	NT
FLUORENE	1000	5.6	~	~	ND (0.44)	NT	0.48	NT
INDENO(1,2,3-CD)PYRENE	1	1	~	~	**1.1**	NT	0.47	NT
2-METHYLNAPHTHALENE	474	0.98	~	~	ND (0.44)	NT	0.53	NT
NAPHTHALENE	1000	5.6	~	~	ND (0.44)	NT	0.83	NT
PHENANTHRENE	1000	4	~	~	1.4	NT	2.0	NT
PYRENE	1000	4	~	~	2.7	NT	ND (0.24)	NT
SM 2540G (% Wt)			~	~				
% Solids	~	~	~	~	77.8	79.8	72.3	60.6
SW-846 8015C (mg/Kg dry)			~	~				
Diesel Range Organics	~	~	~	~	NT	160	NT	NT
TPH-GRO	~	~	~	~	NT	1.7	NT	NT
SW-846 1030 (present/absent)			~	~				
Ignitability	~	~	~	~	NT	Absent	NT	NT
SW-846 9014 (mg/Kg)			~	~				
Reactive Cyanide	~	~	~	~	NT	ND (4.0)	NT	NT
SW-846 9030A (mg/Kg)			~	~				
Reactive Sulfide	~	~	~	~	NT	ND (20)	NT	NT
SW-846 9045C (pH Units)			~	~				
pH	~	~	~	~	NT	7.1	NT	NT

NOTES:

1. An asterisk (*) following a detection limit indicates that the minimum laboratory reporting limit exceeds one or more of the regulatory criteria.
2. NT = Not tested. ND=Not detected. J=estimated value.
3. ~ = No Standard available
4. For soil samples shaded values exceed the RSR Direct Exposure Criteria (DEC) for the parameter.

DATA SUMMARY TABLE
Soil Sample Results - March 2016
Former Axton Cross Site
Shelton, Connecticut

Parameter	RSR DEC	RSR PMC			SAMPLING LOCATION			
		GA PMC	GA GWPC SPLP	GA PMC SPLP	B-1 0-2'	B-1 0-3.5'	B-1 2-3.5'	B-2 0-1.5'
Sampling Date			~	~	3/28/2016 2:30:00 PM	3/28/2016 2:50:00 PM	3/28/2016 2:40:00 PM	3/28/2016 3:20:00 PM
Sample Depth			~	~	0-2 Feet	0-3.5 Feet	2-3.5 Feet	0-1.5 Feet
Laboratory Report Number			~	~	16C1301	16C1301	16C1301	16C1301
5. For soil samples bolded values exceed the RSR PMC for the parameter.								
6. For water samples shaded values exceed the RSR Groundwater (GWP) criteria for the parameter.								
7. For water samples bolded values exceed the Connecticut Water Quality Standards (Appendix D).								
8. RSR criteria are in the same units as the analyte.								

DATA SUMMARY TABLE
Soil Sample Results - March 2016
Former Axton Cross Site
Shelton, Connecticut

Parameter	RSR DEC	RSR PMC			
		GA PMC	GA GWPC SPLP	GA PMC SPLP	B-3 0-2'
Sampling Date			~	~	3/28/2016 3:40:00 PM
Sample Depth			~	~	0-2 Feet
Laboratory Report Number			~	~	16C1301
CTDEP ETPH (mg/Kg dry)			~	~	
ETPH	500	500	~	~	NT
CTDEP ETPH (mg/L) 1312 SPLP EXT			~	~	
ETPH	~	~	0.25	~	NT
SW-846 6010C-D (mg/Kg dry) Metals Digestion			~	~	
ANTIMONY	27	~	~	~	NT
Arsenic	10	~	~	~	NT
Barium	4700	~	~	~	NT
BERYLLIUM	2	~	~	~	NT
Cadmium	34	~	~	~	NT
Chromium	~	~	~	~	NT
COPPER	2500	~	~	~	NT
LEAD	400	~	~	~	NT
Nickel	1400	~	~	~	NT
Selenium	340	~	~	~	NT
Silver	340	~	~	~	NT
THALLIUM	5.4	~	~	~	NT
Vanadium	470	~	~	~	NT
Zinc	20000	~	~	~	NT
SW-846 7471B (mg/Kg dry) Metals Digestion			~	~	
Mercury	20	~	~	~	NT
SW-846 6020A-B (µg/L) 1312 SPLP EXT			~	~	
ANTIMONY	~	~	~	6	ND (5.0)
Arsenic	~	~	~	10	3.5
Barium	~	~	~	1000	ND (50)
BERYLLIUM	~	~	~	4	ND (2.0)
Cadmium	~	~	~	5	ND (2.5)
Chromium	~	~	~	50	10
COPPER	~	~	~	1300	41
LEAD	~	~	~	15	**73**
Nickel	~	~	~	100	ND (25)
Selenium	~	~	~	50	ND (25)
Silver	~	~	~	36	ND (2.5)
THALLIUM	~	~	~	5	ND (1.0)
Vanadium	~	~	~	50	**72**
Zinc	~	~	~	5000	51
SW-846 7470A (mg/L) 1312 SPLP EXT			~	~	
Mercury	~	~	~	0.002	ND (0.00010)

DATA SUMMARY TABLE
Soil Sample Results - March 2016
Former Axton Cross Site
Shelton, Connecticut

Parameter	RSR DEC	RSR PMC			
		GA PMC	GA GWPC SPLP	GA PMC SPLP	B-3 0-2'
Sampling Date			~	~	3/28/2016 3:40:00 PM
Sample Depth			~	~	0-2 Feet
Laboratory Report Number			~	~	16C1301
SW-846 8082A (mg/Kg dry)			~	~	
PCB 1016	1	~	~	~	NT
PCB 1221	1	~	~	~	NT
PCB 1232	1	~	~	~	NT
PCB 1242	1	~	~	~	NT
PCB 1248	1	~	~	~	NT
PCB 1254	1	~	~	~	NT
PCB 1260	1	~	~	~	NT
PCB 1262	1	~	~	~	NT
PCB 1268	1	~	~	~	NT
SW-846 8260C (mg/Kg dry)			~	~	
ACETONE	500	14	~	~	NT
ACRYLONITRILE	1.1	0.01	~	~	NT
BENZENE	21	0.02	~	~	NT
BROMOBENZENE	~	~	~	~	NT
BROMODICHLOROMETHANE	9.9	0.011	~	~	NT
BROMOFORM	78	0.08	~	~	NT
BROMOMETHANE	95	0.2	~	~	NT
2-BUTANONE (MEK)	500	8	~	~	NT
N-BUTYLBENZENE	500	1.4	~	~	NT
SEC-BUTYLBENZENE	500	1.4	~	~	NT
TERT-BUTYLBENZENE	500	1.4	~	~	NT
CARBON DISULFIDE	500	14	~	~	NT
CARBON TETRACHLORIDE	4.7	0.1	~	~	NT
CHLOROBENZENE	500	2	~	~	NT
CHLORODIBROMOMETHANE	7.3	0.01	~	~	NT
CHLOROETHANE	~	~	~	~	NT
CHLOROFORM	100	0.12	~	~	NT
CHLOROMETHANE	47	0.054	~	~	NT
2-CHLOROTOLUENE	~	~	~	~	NT
4-CHLOROTOLUENE	~	~	~	~	NT
1,2-DIBROMO-3-CHLOROPROPANE	0.44	~	~	~	NT
1,2-DIBROMOETHANE (EDB)	0.007	0.01	~	~	NT
DIBROMOMETHANE	~	~	~	~	NT
1,2-DICHLOROBENZENE	500	3.1	~	~	NT
1,3-DICHLOROBENZENE	500	12	~	~	NT
1,4-DICHLOROBENZENE	26	1.5	~	~	NT

DATA SUMMARY TABLE
Soil Sample Results - March 2016
Former Axton Cross Site
Shelton, Connecticut

Parameter	RSR DEC	RSR PMC			
		GA PMC	GA GWPC SPLP	GA PMC SPLP	B-3 0-2'
Sampling Date			~	~	3/28/2016 3:40:00 PM
Sample Depth			~	~	0-2 Feet
Laboratory Report Number			~	~	16C1301
TRANS-1,4-DICHLORO-2-BUTENE	~	~	~	~	NT
DICHLORODIFLUOROMETHANE	~	~	~	~	NT
1,1-DICHLOROETHANE	500	1.4	~	~	NT
1,2-DICHLOROETHANE	6.7	0.02	~	~	NT
1,1-DICHLOROETHYLENE	1	0.14	~	~	NT
CIS-1,2-DICHLOROETHYLENE	500	1.4	~	~	NT
TRANS-1,2-DICHLOROETHYLENE	500	2	~	~	NT
1,2-DICHLOROPROPANE	9	0.1	~	~	NT
1,3-DICHLOROPROPANE	~	~	~	~	NT
2,2-DICHLOROPROPANE	~	~	~	~	NT
1,1-DICHLOROPROPENE	~	~	~	~	NT
CIS-1,3-DICHLOROPROPENE	3.4	0.01	~	~	NT
TRANS-1,3-DICHLOROPROPENE	3.4	0.01	~	~	NT
ETHYLBENZENE	500	10.1	~	~	NT
HEXACHLOROBUTADIENE	7.9	1	~	~	NT
2-HEXANONE	~	~	~	~	NT
ISOPROPYLBENZENE	500	0.6	~	~	NT
P-ISOPROPYLTOLUENE	500	0.6	~	~	NT
MTBE	500	2	~	~	NT
METHYLENE CHLORIDE	82	0.1	~	~	NT
MIBK	500	7	~	~	NT
NAPHTHALENE	1000	5.6	~	~	NT
N-PROPYLBENZENE	500	1.4	~	~	NT
STYRENE	500	2	~	~	NT
1,1,1,2-TETRACHLOROETHANE	24	0.02	~	~	NT
1,1,2,2-TETRACHLOROETHANE	3.1	0.01	~	~	NT
TETRACHLOROETHYLENE	12	0.1	~	~	NT
TETRAHYDROFURAN	~	~	~	~	NT
TOLUENE	500	20	~	~	NT
1,2,3-TRICHLOROBENZENE	~	~	~	~	NT
1,2,4-TRICHLOROBENZENE	680	1.4	~	~	NT
1,1,1-TRICHLOROETHANE	500	4	~	~	NT
1,1,2-TRICHLOROETHANE	11	0.1	~	~	NT
TRICHLOROETHYLENE	56	0.1	~	~	NT
TRICHLOROFLUOROMETHANE	500	26	~	~	NT
1,2,3-TRICHLOROPROPANE	~	~	~	~	NT
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	~	~	~	~	NT

DATA SUMMARY TABLE
Soil Sample Results - March 2016
Former Axton Cross Site
Shelton, Connecticut

Parameter	RSR DEC	RSR PMC			
		GA PMC	GA GWPC SPLP	GA PMC SPLP	B-3 0-2'
Sampling Date			~	~	3/28/2016 3:40:00 PM
Sample Depth			~	~	0-2 Feet
Laboratory Report Number			~	~	16C1301
1,2,4-TRIMETHYLBENZENE	500	7	~	~	NT
1,3,5-TRIMETHYLBENZENE	500	7	~	~	NT
VINYL CHLORIDE	0.32	0.04	~	~	NT
M/P-XYLENE	500	19.5	~	~	NT
O-XYLENE	500	19.5	~	~	NT
SW-846 8260C (µg/L) 1312 SPLP ZHE			~	~	
ACETONE	~	~	700	~	ND (50)
ACRYLONITRILE	~	~	0.5	~	**ND (5.0) ***
BENZENE	~	~	1	~	ND (1.0)
BROMOBENZENE	~	~	~	~	ND (1.0)
BROMODICHLOROMETHANE	~	~	0.56	~	ND (0.50)
BROMOFORM	~	~	4	~	ND (2.0) J-
BROMOMETHANE	~	~	9.8	~	ND (2.0)
2-BUTANONE (MEK)	~	~	400	~	ND (20)
N-BUTYLBENZENE	~	~	61	~	ND (1.0)
SEC-BUTYLBENZENE	~	~	61	~	ND (1.0)
TERT-BUTYLBENZENE	~	~	61	~	ND (1.0)
CARBON DISULFIDE	~	~	700	~	ND (4.0)
CARBON TETRACHLORIDE	~	~	5	~	ND (5.0)
CHLOROBENZENE	~	~	100	~	ND (1.0)
CHLORODIBROMOMETHANE	~	~	0.5	~	ND (0.50)
CHLOROETHANE	~	~	~	~	ND (2.0)
CHLOROFORM	~	~	6	~	ND (2.0)
CHLOROMETHANE	~	~	2.7	~	ND (2.0)
2-CHLOROTOLUENE	~	~	~	~	ND (1.0)
4-CHLOROTOLUENE	~	~	~	~	ND (1.0)
1,2-DIBROMO-3-CHLOROPROPANE	~	~	~	~	ND (5.0)
1,2-DIBROMOETHANE (EDB)	~	~	0.05	~	**ND (0.50) ***
DIBROMOMETHANE	~	~	~	~	ND (1.0)
1,2-DICHLOROBENZENE	~	~	600	~	ND (1.0)
1,3-DICHLOROBENZENE	~	~	600	~	ND (1.0)
1,4-DICHLOROBENZENE	~	~	75	~	ND (1.0)
TRANS-1,4-DICHLORO-2-BUTENE	~	~	~	~	ND (2.0)
DICHLORODIFLUOROMETHANE	~	~	~	~	ND (2.0)
1,1-DICHLOROETHANE	~	~	70	~	ND (1.0)
1,2-DICHLOROETHANE	~	~	1	~	ND (1.0)
1,1-DICHLOROETHYLENE	~	~	7	~	ND (1.0)

DATA SUMMARY TABLE
Soil Sample Results - March 2016
Former Axton Cross Site
Shelton, Connecticut

Parameter	RSR DEC	RSR PMC			
		GA PMC	GA GWPC SPLP	GA PMC SPLP	B-3 0-2'
Sampling Date			~	~	3/28/2016 3:40:00 PM
Sample Depth			~	~	0-2 Feet
Laboratory Report Number			~	~	16C1301
CIS-1,2-DICHLOROETHYLENE	~	~	70	~	ND (1.0)
TRANS-1,2-DICHLOROETHYLENE	~	~	100	~	ND (1.0)
1,2-DICHLOROPROPANE	~	~	5	~	ND (1.0)
1,3-DICHLOROPROPANE	~	~	~	~	ND (0.50)
2,2-DICHLOROPROPANE	~	~	~	~	ND (1.0)
1,1-DICHLOROPROPENE	~	~	~	~	ND (2.0)
CIS-1,3-DICHLOROPROPENE	~	~	0.5	~	ND (0.50)
TRANS-1,3-DICHLOROPROPENE	~	~	0.5	~	ND (0.50)
ETHYLBENZENE	~	~	700	~	ND (1.0)
HEXACHLOROBUTADIENE	~	~	0.45	~	**ND (0.50) ***
2-HEXANONE	~	~	~	~	ND (10)
ISOPROPYLBENZENE	~	~	30	~	ND (1.0)
P-ISOPROPYLTOLUENE	~	~	30	~	ND (1.0)
MTBE	~	~	70	~	ND (1.0)
METHYLENE CHLORIDE	~	~	5	~	ND (5.0)
MIBK	~	~	350	~	ND (10)
NAPHTHALENE	~	~	280	~	ND (2.0)
N-PROPYLBENZENE	~	~	61	~	ND (1.0)
STYRENE	~	~	100	~	ND (1.0)
1,1,1,2-TETRACHLOROETHANE	~	~	1	~	ND (1.0)
1,1,2,2-TETRACHLOROETHANE	~	~	0.5	~	ND (0.50)
TETRACHLOROETHYLENE	~	~	5	~	ND (1.0)
TETRAHYDROFURAN	~	~	~	~	ND (10)
TOLUENE	~	~	1000	~	ND (1.0)
1,2,3-TRICHLOROBENZENE	~	~	~	~	ND (5.0)
1,2,4-TRICHLOROBENZENE	~	~	70	~	ND (1.0)
1,1,1-TRICHLOROETHANE	~	~	200	~	ND (1.0)
1,1,2-TRICHLOROETHANE	~	~	5	~	ND (1.0)
TRICHLOROETHYLENE	~	~	5	~	ND (1.0)
TRICHLOROFLUOROMETHANE	~	~	1300	~	ND (2.0)
1,2,3-TRICHLOROPROPANE	~	~	~	~	ND (2.0)
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	~	~	~	~	ND (1.0)
1,2,4-TRIMETHYLBENZENE	~	~	350	~	ND (1.0)
1,3,5-TRIMETHYLBENZENE	~	~	350	~	ND (1.0)
VINYL CHLORIDE	~	~	2	~	ND (2.0)
M/P-XYLENE	~	~	530	~	ND (2.0)
O-XYLENE	~	~	530	~	ND (1.0)

DATA SUMMARY TABLE
Soil Sample Results - March 2016
Former Axton Cross Site
Shelton, Connecticut

Parameter	RSR DEC	RSR PMC			
		GA PMC	GA GWPC SPLP	GA PMC SPLP	B-3 0-2'
Sampling Date			~	~	3/28/2016 3:40:00 PM
Sample Depth			~	~	0-2 Feet
Laboratory Report Number			~	~	16C1301
SW-846 8270D (mg/Kg dry)			~	~	
ACENAPHTHENE	1000	8.4	~	~	NT
ACENAPHTHYLENE	1000	8.4	~	~	NT
ANTHRACENE	1000	40	~	~	NT
BENZO(A)ANTHRACENE	1	1	~	~	NT
BENZO(A)PYRENE	1	1	~	~	NT
BENZO(B)FLUORANTHENE	1	1	~	~	NT
BENZO(G,H,I)PERYLENE	1000	4.2	~	~	NT
BENZO(K)FLUORANTHENE	8.4	1	~	~	NT
CHRYSENE	84	1	~	~	NT
DIBENZ(A,H)ANTHRACENE	1	1	~	~	NT
FLUORANTHENE	1000	5.6	~	~	NT
FLUORENE	1000	5.6	~	~	NT
INDENO(1,2,3-CD)PYRENE	1	1	~	~	NT
2-METHYLNAPHTHALENE	474	0.98	~	~	NT
NAPHTHALENE	1000	5.6	~	~	NT
PHENANTHRENE	1000	4	~	~	NT
PYRENE	1000	4	~	~	NT
SM 2540G (% Wt)			~	~	
% Solids	~	~	~	~	71.4
SW-846 8015C (mg/Kg dry)			~	~	
Diesel Range Organics	~	~	~	~	NT
TPH-GRO	~	~	~	~	NT
SW-846 1030 (present/absent)			~	~	
Ignitability	~	~	~	~	NT
SW-846 9014 (mg/Kg)			~	~	
Reactive Cyanide	~	~	~	~	NT
SW-846 9030A (mg/Kg)			~	~	
Reactive Sulfide	~	~	~	~	NT
SW-846 9045C (pH Units)			~	~	
pH	~	~	~	~	NT

NOTES:

1. An asterisk (*) following a detection limit indicates that the minimum laboratory reporting limit exceeds one or more of the regulatory criteria.
2. NT = Not tested. ND=Not detected. J=estimated value.
3. ~ = No Standard available
4. For soil samples shaded values exceed the RSR Direct Exposure Criteria (DEC) for the parameter.

DATA SUMMARY TABLE
Soil Sample Results - March 2016
Former Axton Cross Site
Shelton, Connecticut

Parameter	RSR DEC	RSR PMC			
		GA PMC	GA GWPC SPLP	GA PMC SPLP	B-3 0-2'
Sampling Date			~	~	3/28/2016 3:40:00 PM
Sample Depth			~	~	0-2 Feet
Laboratory Report Number			~	~	16C1301
5. For soil samples bolded values exceed the RSR PMC for the parameter.					
6. For water samples shaded values exceed the RSR Groundwater (GWP) criteria for the parameter.					
7. For water samples bolded values exceed the Connecticut Water Quality Standards (Appendix D).					
8. RSR criteria are in the same units as the analyte.					

DATA SUMMARY TABLE
Trip Blank Results - March 2016
Former Axton Cross Site
Shelton, Connecticut

Parameter	Trip Blank
Sampling Date	3/29/2016 10:00:00 AM
Sample Depth	- Feet
Laboratory Report Number	16C1301
SW-846 8260C (mg/Kg wet)	
ACETONE	ND (0.10)
ACRYLONITRILE	ND (0.0060)
BENZENE	ND (0.0020)
BROMOBENZENE	ND (0.0020)
BROMODICHLOROMETHANE	ND (0.0020)
BROMOFORM	ND (0.0020)
BROMOMETHANE	ND (0.010)
2-BUTANONE (MEK)	ND (0.040)
N-BUTYLBENZENE	ND (0.0020)
SEC-BUTYLBENZENE	ND (0.0020)
TERT-BUTYLBENZENE	ND (0.0020)
CARBON DISULFIDE	ND (0.0060)
CARBON TETRACHLORIDE	ND (0.0020)
CHLOROBENZENE	ND (0.0020)
CHLORODIBROMOMETHANE	ND (0.0010)
CHLOROETHANE	ND (0.020)
CHLOROFORM	ND (0.0040)
CHLOROMETHANE	ND (0.010)
2-CHLOROTOLUENE	ND (0.0020)
4-CHLOROTOLUENE	ND (0.0020)
1,2-DIBROMO-3-CHLOROPROPANE	ND (0.0020)
1,2-DIBROMOETHANE (EDB)	ND (0.0010)
DIBROMOMETHANE	ND (0.0020)
1,2-DICHLOROBENZENE	ND (0.0020)
1,3-DICHLOROBENZENE	ND (0.0020)
1,4-DICHLOROBENZENE	ND (0.0020)
TRANS-1,4-DICHLORO-2-BUTENE	ND (0.0040)
DICHLORODIFLUOROMETHANE	ND (0.020)
1,1-DICHLOROETHANE	ND (0.0020)
1,2-DICHLOROETHANE	ND (0.0020)
1,1-DICHLOROETHYLENE	ND (0.0040)
CIS-1,2-DICHLOROETHYLENE	ND (0.0020)
TRANS-1,2-DICHLOROETHYLENE	ND (0.0020)
1,2-DICHLOROPROPANE	ND (0.0020)
1,3-DICHLOROPROPANE	ND (0.0010)
2,2-DICHLOROPROPANE	ND (0.0020)
1,1-DICHLOROPROPENE	ND (0.0020)
CIS-1,3-DICHLOROPROPENE	ND (0.0040)
TRANS-1,3-DICHLOROPROPENE	ND (0.0010)
ETHYLBENZENE	ND (0.0020)
HEXACHLOROBUTADIENE	ND (0.0020)
2-HEXANONE	ND (0.020)
ISOPROPYLBENZENE	ND (0.0020)
P-ISOPROPYLTOLUENE	ND (0.0020)
MTBE	ND (0.0040)
METHYLENE CHLORIDE	ND (0.020)
MIBK	ND (0.020)
NAPHTHALENE	ND (0.0040)
N-PROPYLBENZENE	ND (0.0020)
STYRENE	ND (0.0020)
1,1,1,2-TETRACHLOROETHANE	ND (0.0020)
1,1,2,2-TETRACHLOROETHANE	ND (0.0010)

DATA SUMMARY TABLE
Trip Blank Results - March 2016
Former Axton Cross Site
Shelton, Connecticut

Parameter	Trip Blank
Sampling Date	3/29/2016 10:00:00 AM
Sample Depth	- Feet
Laboratory Report Number	16C1301
TETRACHLOROETHYLENE	ND (0.0020)
TETRAHYDROFURAN	ND (0.010)
TOLUENE	ND (0.0020)
1,2,3-TRICHLOROBENZENE	ND (0.0020)
1,2,4-TRICHLOROBENZENE	ND (0.0020)
1,1,1-TRICHLOROETHANE	ND (0.0020)
1,1,2-TRICHLOROETHANE	ND (0.0020)
TRICHLOROETHYLENE	ND (0.0020)
TRICHLOROFLUOROMETHANE	ND (0.010)
1,2,3-TRICHLOROPROPANE	ND (0.0020)
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ND (0.010)
1,2,4-TRIMETHYLBENZENE	ND (0.0020)
1,3,5-TRIMETHYLBENZENE	ND (0.0020)
VINYL CHLORIDE	ND (0.010)
M/P-XYLENE	ND (0.0040)
O-XYLENE	ND (0.0020)

Data Review Qualification Actions

Case: 0160S

SDG: 16C1301

Parameter	Analyte	Samples	Evaluation Criteria	Action Needed	Comments
SPLP VOCs	1,2-Dibromo-3-chloropropane	B-1 0-2'	LCS	J-/UJ	LCS biased low
SPLP VOCs	2,2-Dichloropropane	B-2 0-1.5'	LCS	J-/UJ	LCS biased low
SPLP VOCs	Bromoform	B-1 0-2', B-3 0-2'	LCS	J-/UJ	LCS biased low
SPLP VOCs	1,2-Dibromo-3-chloropropane, bromoform	B-1 0-2', B-3 0-2'	CCV	J-/UJ	low bias
SPLP VOCs	2,2-Dichloropropane	B-2 0-1.5'	CCV	J-/UJ	low bias
Total Metals	Copper, Zinc	All soils	Lab Duplicate	J/UJ	RPD exceeded
Total Metals	Antimony, Arsenic, Selenium	All soils	MS	J/UJ	low recoveries

Generic Data Review Checklist

Project: Axton Cross
Project #: 80108
Case#: 0160S
Date: 4/22/16
Methods: 8260, 6010, 7471/7470
Laboratory: Con-Test
SDG: 16C1301
Reviewer: Gail DeRuzzo

1. **Case Narrative and Data Package Completeness (COC and Analyte List Review)**
   Soils – 1 TB, 1 VOCs, 2 metals, 3 SPLP VOCs, 2 PAHs, 1 ETPH, 1 PCBs, 3 SPLP Metals, 1 SPLP ETPH.

   1 sample for IDW (B-1 0-3.5) – VOC, PCB, Metals, GRO, DRO, RCI – not evaluated

   RCP certification form present.

On 5/2 – we requested the laboratory to review the results for sample B-1 0-3.5 for metals because the results were higher than expected. Word back from the lab was the sample was run 5 times at various dilutions with similar results. We then requested the laboratory re-digest and re-analyze the sample. The laboratory re-prepped the sample on 5/10 and reanalyzed it on 5/12. The results were lower (now below action levels) and to confirm the new results, the sample was re-digested and re-analyzed a third time by the laboratory, which confirmed the redigested/reanalyzed results. The final report (dated 5/19/16) was issued with only the second set of data as the first set of data was deemed as anomaly by the laboratory.

2. **Holding Time and Sample Preservation Compliance**
   OK

3. **Lab and Field Blanks**
   Trip Blank - ND
   Lab blanks – Zn in blank but samples >10x blank level – no action.

4. **Laboratory Control Samples**
   SPLP VOC - Chloromethane and DCDFM out high – samples ND – no impact.
   SPLP VOC - DBCP (B-1 0-2) – J/UJ – biased low; 2,2-dichloropropane (B-2 0-1.5)– J/UJ – biased low, Bromoform (B-1 0-2, B-3 0-2) – J/UJ – biased low

5. **Field Duplicate Precision**
   NA

6. **Laboratory Duplicate Precision**
   Total Metals B-1 2-3.5 (soil) – Cu, Zn – RPD out – J/UJ

7. **Matrix Spikes**
   Total Metals: B-1 2-3.5 – Sb, As, Se – out – low – J/UJ
   Ba, Cu, Zn out but sample amount >4x spike amount – no action.

ETPH – sample 5 (B-2 0-1.5) – in control

8. Surrogate Spikes
OK

9. Internal Standards
OK – no discussion in narrative

10. Performance Evaluation Samples
NA

11. Reporting Limits
PAHs – B-1 0-2 – elevated due to matrix (also had detects)

12. Calibration Issues
SPLP VOC CCV – low for DBCP, bromoform (B-1 0-2, B-3 0-2) and 2,2-dichloroproane (B-2 0-1.5) – J/UJ
CCV high for bromomethane, chloromethane, DCDFM – samples ND – no impact.

13. Other

VOC analyte list:
Lab reported Acrylonitrile, 1,1,2-trichloro-1,2,2-trifluoroethane, and trans-1,4-dichloro-2-butene that were not in the QAPP. Acrylonitrile does have CT RSR action limits. The other analytes do not.
The lab did not report bromochloromethane and diethyl ether that were listed in the QAPP but these analytes do not have CT RSR action limits.
The additional analytes reported by the laboratory remain in the report.

Action Limits: Several discrepancies between what laboratory reported and what was in the QAPP. Double checked CT standards. The following QAPP standards were incorrect:
RES DEC for:
1,1,2,2-Tetrachloroethane – was 11 should be 3.1 mg/kg
GA PMC for:
MTBE – was 0.1 should be 2 mg/kg
GA GWPC for:
1,1-Dichloroethene was 1 ug/L should be 7 ug/L

16C 1301

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Rev 04.05.12

Company Name: Nobis Engineering, Inc.
Address: 18 Chenell Drive, Concord, NH 03301
Attention: Steve Vetere
Project Location: Shelton, CT
Sampled By: Richard Rizza

Telephone: 603-224-4182
Project #: 80108.05
Client PO#:

DATA DELIVERY (check all that apply)
○ FAX ☒ EMAIL ○ WEBSITE
Fax #:
Email: SVetere@nobisengr.com
Format: ☒ PDF ○ EXCEL ○ GIS ○ OTHER ○ "Enhanced Data Package"

Project Proposal Provided? (for billing purposes)
○ yes _____ proposal date

Con-Test Lab ID (laboratory use only)	Client Sample ID / Description	Collection Beginning Date/Time	Collection Ending Date/Time	Composite	Grab	*Matrix Code	Conc Code	VOC	5PLP VOC	PAH	ETPH	PCB	Metals	5PLP Metals	GRO	DRO	RCI	5PLP ETPH
# of Containers								3	1	1	1	1	1	1	2	1	1	1
** Preservation								N/I/O	I	I	I	I	I	I	N/I	I	I	I
***Container Code								V	O	A	A	A	A	A	V	A	A	A
01	Trip Blank	3-28-16 1000	3-28-16 1000		X	O		X										
02	B-1 0-2'	3-28-16 1430	3-28-16 1430	X		S	U		X	X								
03	B-1 2-3.5'	3-28-16 1440	3-28-16 1440	X		S	U	X		X	X	X	X	X				
04	B-1 0-3.5'	3-28-16 1450	3-28-16 1450	X		S	U	X				X	X		X	X	X	
05	B-2 0-1.5'	3-28-16 1510	3-28-16 1510	X		S	U		X					X				X
06	B-3 0-2'	3-28-16 1540	3-28-16 1540	X		S	U		X					X				

ANALYSIS REQUESTED

Dissolved Metals
○ Field Filtered
○ Lab to Filter

***Cont. Code:**
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other

**Preservation
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other H2O

*Matrix Code:
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other Trip Blank

Comments:
Returning extra VOA vials and one En Core Sampler.

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Relinquished by: (signature)	Date/Time: 3-29-16 1030
Received by: (signature) 3/29/16	Date/Time: 1220
Relinquished by: (signature) 3/29/16	Date/Time: 1815
Received by: (signature) 4.6 3/29/16	Date/Time: 1815

Turnaround ††
☐ 7-Day
☒ 10-Day
☐ Other
RUSH †
☐ †24-Hr ☐ †48-Hr
☐ †72-Hr ☐ †4-Day
† Require lab approval

Detection Limit Requirements
Massachusetts:
Connecticut:
Other:

Is your project MCP or RCP ?
○ MCP Form Required
○ RCP Form Required
○ MA State DW Form Required PWSID #

NELAC & AIHA-LAP, LLC Accredited
WBE/DBE Certified

TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT.

PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT

Appendix C

Flood Management Certification Permit

Department of Economic and Community Development

Connecticut
still revolutionary

November 19, 2014

Ms. Cheryl Chase
Department of Environmental Protection
Inland Water Resources Division
79 Elm Street
Hartford, CT 06106

Re: City of Shelton – Canal Street Brownfield Remediation of the Former Chromium Process Parcels

Dear Ms. Chase:

Enclosed is the required state certification pursuant to Section 25-68d of the Connecticut General Statutes. This certification is submitted for the purpose of Flood Management Certification for the proposed *Canal Street Brownfield Remediation of the Former Chromium Process Parcels.* Shelton's Consultant Engineer, Ann Bogucki P.E. of AECOM has prepared this certification package on behalf of our funding applicant the City of Shelton.

This permit is being submitted under *Flood Management Certification for Minor Activities Permit FM-201406879* as approved by the Department of Energy & Environmental Protection on August 22, 2014. If you have any questions regarding this matter or need further assistance, please contact Ned Moore of my staff at (860) 270-8148.

Sincerely,

Tim Sullivan
Executive Director
Office of Waterfront, Brownfield and Transit-Oriented Development

Cc: Ned Moore, OBRD

CITY OF SHELTON
CANAL STREET BROWNFIELDS REMEDIATION
FORMER CHROMIUM PROCESS PARCELS

NOVEMBER 2014

GENERAL INFORMATION

The City of Shelton proposes to decontaminate and demolish the Chromium Process building located on Canal Street (see Figures 1 and 2, attached). The project activities include the assessment of building materials, abatement of hazardous materials, demolition and recycling of the building materials, and then environmental assessment of, and possibly remediation of, the subsurface soils and groundwater once the building demolition work is completed. Part of the funding for this project is coming from the Connecticut Department of Economic & Community Development (CT DECD). The CT DECD has various permitting requirements to other State agencies, including in this case the Department of Energy & Environmental Protection (CT DEEP), to assure that various environmental factors are given due consideration during the development of the design, the construction contract documents, and during the construction process itself.

Because the project is located within both the 100-year and 500-year flood zones, it is necessary to assure that it complies with flood zone requirements. The CT DEEP has worked with the CT DECD to develop a series of general permits which cover Flood Management Certification requirements for minor activities. A copy of the DEEP letter of August 22, 2014 to DECD is attached to this narrative. Flood Management Certification for minor activities No. FM-201406879 allows a design professional to certify that a proposed activity has been designed in compliance with the requirements of Section 25-68 b-h of the Connecticut General Statutes and Section 25-68 h-l and 25-68 h-3 of the regulations of Connecticut State agencies (RCSA).

Of the fifteen activities listed in FM-201406879, the proposed activities at the Chromium Process property along Canal Street most closely fall under the purview of Activity #6, the Demolition of an Existing Structure, along with Activity #5, Subsurface Investigations, and possibly Activity #11 Environmental Remediation (depending on the results of the subsurface investigation).

DECD FLOOD MANAGEMENT GENERAL CERTIFICATION

Activities applicable to this project:

> **<u>Activity #6 Demolition of Existing Structures</u>** - Demolition and removal of existing structures to grade in a FEMA flood zone in accordance with flood contingency plan. Any future redevelopment of the site may require a Flood Management Certification per Connecticut General Statutes Sections 25-68 (b)-(h).

Activity #5 Subsurface Investigations and Excavations related to Archaeological Surveys and Environmental Site Assessments - Site reconnaissance and field survey required assessing environmental impacts to a property. Project activities will be limited to test pits, borings and hand shoveling. All impacts will be temporary in nature and disturbed areas will be restored to existing grades upon completion.

Activity #11 Environmental Remediation - Environmental remediation consisting of soil excavation and in-kind soil backfilling to the existing surface elevation. Limited to 100 cubic yards to be staged at one time under an approved soil management plan for the proposed work. The work shall implement Best Management Practices and be done in a manner that minimizes impacts to the waterways, including preventing debris from entering the water. Staging and temporary work required to complete these activities will be allowed in the floodway provided that the activities are consistent with the flood contingency plan. The City shall submit a pre- and post-construction survey to DECD to demonstrate compliance with the permit. The survey will be signed and sealed by a licensed professional in the state of Connecticut.

DESCRIPTION OF PROJECT

The area of the project that is within the 100-year flood zone is shown on the attached figures (based on the FEMA National Flood Layer and FIRM). The project includes the building and land formerly occupied by the Chromium Process Company, located within the brownfield target area, also known as the Shelton Enterprise and Commerce Park (SECP) area, a State-approved Chapter 132 project.

The project will consist of the abatement and demolition of the existing former industrial mill building, its annex and boiler building, and land around and below the buildings as needed. The City decided to designate a portion of this area as a future location for parking at street level only, which will be completed with separate, private and local funding.

Other improvements will come with the assessment and removal of possible buried tanks and encountered polluted soil below the building and present at the adjacent land parcel. Metals and solvents are possible contaminants present based on the historic use documented and environmental impacts found in soils on adjacent lands. Note that final environmental assessment has to be delayed until the demolition of the building so that the work can be conducted safely, given the building condition.

In terms of flood storage impact, the removal of the existing building and replacement with a street level parking area will provide a net benefit to storage capacity. For the adjacent parcel, the plan for site reuse will include reuse of the space within the footprint of the former structure. Hence, overall, the net flood storage capacity for this entire project will increase at completion.

PROJECT BUDGET

It is anticipated that the project budget and funding will be as follows:

State Funding - DECD	$1,019,470	(building demolition and related environmental response activities; local and federal brownfield funds may be applied)

COMPLIANCE WITH GENERAL PERMIT FM-201406879

The practices stipulated in the General Permit and required to be addressed in the certification are as follows:

- Prohibits activities within the flood way unless identified within the approved activities.

  No activities are planned to take place within the regulatory floodway, as shown on Attachment 1. A portion of the project is located within the 100-year flood boundary. That section is shown on Attachments 1 and 2, based on the FEMA National Flood Hazard Layer and the Flood Insurance Rate Map, Community Panel # 09001C0305F, copies of which are attached. The proposed activity within the 100-year flood boundary includes building demolition, environmental assessment, and possibly environmental remediation. These activities are described in the General Permit and are included as a permitted activity under Demolition of Existing Structures; Subsurface Investigations and Excavations related to Archaeological Surveys and Environmental Site Assessments; and Environmental Remediation.

- Proper erosion and sedimentation controls will be utilized in conjunction with Best Management Practices as outlined in Connecticut Guidelines for Soil Erosion and Sediment Control.

  Best Management Practices from the Connecticut Guidelines for Soil Erosion and Sediment Control will be adhered to during this process. The method for applying the standards will be through plans and specifications developed by a State of Connecticut Professional Engineer (PE) and issued to each contractor performing physical work at the project site. Oversight of the process will come from a Licensed Environmental Professional (LEP) hired by the City. As an example, silt fence will be placed at the boundary of the site work and around smaller focused areas before heavy rain events. In addition, potentially impacted catch basins near the project area will be fitted with "socks" and surrounded with straw bales before rain events. Only temporary (daily) stockpiles of materials within the project footprint will be allowed.

- Proper Stormwater quality measures in accordance with DEEP 2004 CT Stormwater Quality Manual.

  The project will meet stormwater quality measures in accordance with the DEEP 2004 CT Stormwater Quality Manual through the development and implementation of project specifications for stormwater management, as applicable, developed by a CT PE and LEP, issued to the contractors performing physical services, and overseen by the City's PE/LEP. Note also examples described in the item above as part of best practices.

- Any temporary facilities or equipment requiring work in or placement in a waterway, must be able to be removed in a timely manner from the site in case of a flood warning, except for items designed as temporary structures, in accordance with guidelines outlined in CTDOT Drainage Manual for Temporary Hydraulic Structures.

  No temporary work is being conducted in a waterway.

- Temporary facilities will allow for the passage of fish with minimal disturbance.

  There are no temporary facilities proposed in this project and no proposed work in a waterway which would adversely affect fish passage.

- Unconfined in-stream work must be limited to the period June 1 to September 30.

  There is no unconfined in-stream work in this project.

- The activity will have no increase in peak flow leaving the project site.

  There is no impact on peak flow leaving the site.

- Any minor grading within the floodplain must demonstrate that there are no adverse hydraulic impacts caused from the proposed activity

  There are no grading changes for this activity to cause any adverse hydraulic impacts. The building demolition will result in a greater storage capacity.

- Grading and placement of not greater than twenty-five (25) cubic yards of fill is allowed in regulated area for temporary access to the site of such activity provided that: 1) all temporary fill is removed, 2) the top of roadway is no more than one foot above existing grade, 3) any disturbed areas are restored within one year of authorization, and 4) any minor filling which has no net increase of peak discharges exiting the site.

  Temporary fill for site access is not necessary.

FLOOD CONTINGENCY PLAN

There will be no work performed within any watercourse. During site activities, in the event of a flood warning, temporary equipment will be removed and existing excavations and/or stockpiles will be secured with additional layers of plastic sheeting and heavy objects to hold down the

covers. Equipment will be moved beyond the flood plain area, to a higher elevation, such as the nearby public parking area adjacent to the Farmer's Market or hauled back to the contractor's facility.

The project engineer and LEP will remain aware of climatic events and will assure that the project site is restored to appropriate conditions prior to any such flooding to the maximum extent possible, especially if flow or water level conditions threaten to cause excessive erosion, siltation or turbidity.

Prior to commencement of any construction, each contractor will submit to the PE/LEP a written Flood Contingency Plan. The Plan will include the following:

- A description of the means by which the contractor will remove from within the floodplain, all materials, equipment and personnel prior to a predicted major storm. A major storm shall be defined as a storm predicted by the N.O.A.A. weather service with warning of flooding, severe thunderstorms, or similarly severe weather conditions or effects.
- Provisions for securing work in progress prior to a major storm.

Work within or adjacent to watercourses will be conducted during periods of low flow, whenever possible. The PE/LEP will remain aware of flow conditions during the conduct of such work and will direct the contractor to stop this work if flow conditions threaten to cause excessive erosion, siltation, or turbidity.

The Department or its designee will have personnel assigned to monitor project to ensure compliance with the project requirements.

No buoyant, hazardous, flammable, explosive, soluble, expansive, or any other materials which could be injurious to human, animal, or plant life in the event of flood, will be stored within the 500-year flood plain at any time. DECD's applicant shall be responsible for field locating the 500-year floodplain with ground survey. No storage of construction equipment and/or material will occur within the flood plain unless such equipment or material is not subject to major flood damage, or is anchored, restrained, or enclosed to prevent it from floating away or is removed prior to flooding. The material storage areas should be identified on the construction plans.

Respectfully submitted

Professional Certification

For all General Permit Applications submitted as part of the Flood Management Certification for Minor Activities, the following certification must be signed and sealed by a professional engineer licensed to practice in Connecticut and submitted with the Flood Contingency Plan.

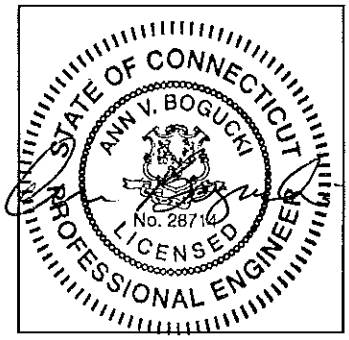
"I certify that in my professional judgment, this project has been designed consistent with the Flood Management Certification # FM- 201406879 for Minor Activities as approved by DEP on August 22, 2014, and that the information is true, accurate and complete to the best of my knowledge and belief.

This certification is based on my review of the Flood Contingency Plan.

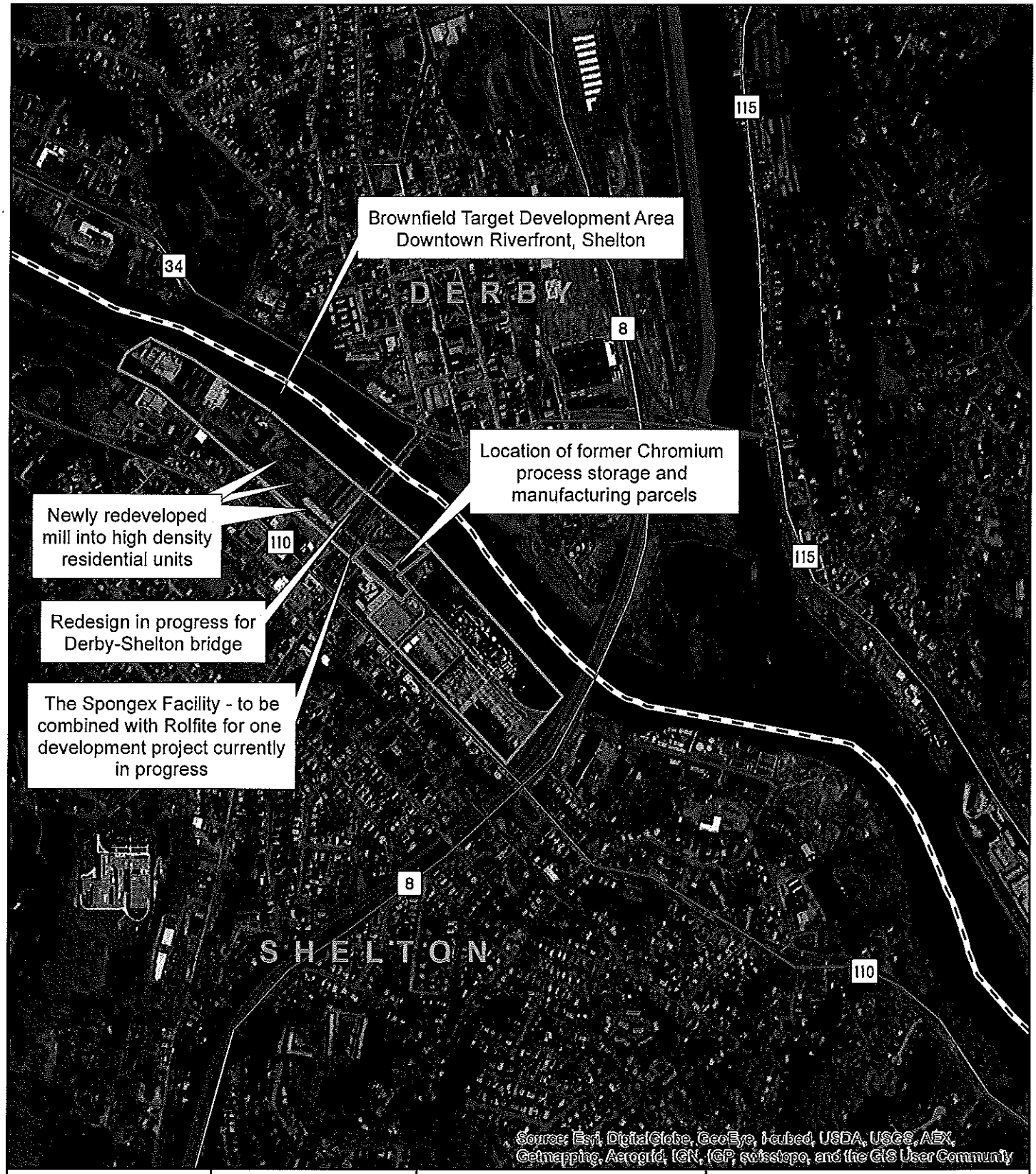
I understand that a false statement made in the submitted information may, pursuant to Section 22a-6 of the General Statutes, be punishable as a criminal offense under Section 53a-157b of the General Statutes, and may also be punishable under Section 22a-438 of the General Statutes."

Signature of Applicant	11/19/14 Date
Tim Sullivan	Director, DECD Title
Signature of Professional Engineer	**November 17, 2014** Date
Ann V. Bogucki Name of Professional Engineer (print or type)	**28714** P.E. Number

Affix P.E. Stamp Here



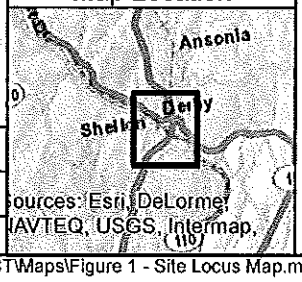
Figures and Attachments to Application



AECOM

Drawn:	BC	6/27/2014
Approved:	NT	6/27/2014

Map Location



Legend

- Roadway
- Former Chromium Process Facility
- Target Development Area

0 500 1,000 Feet

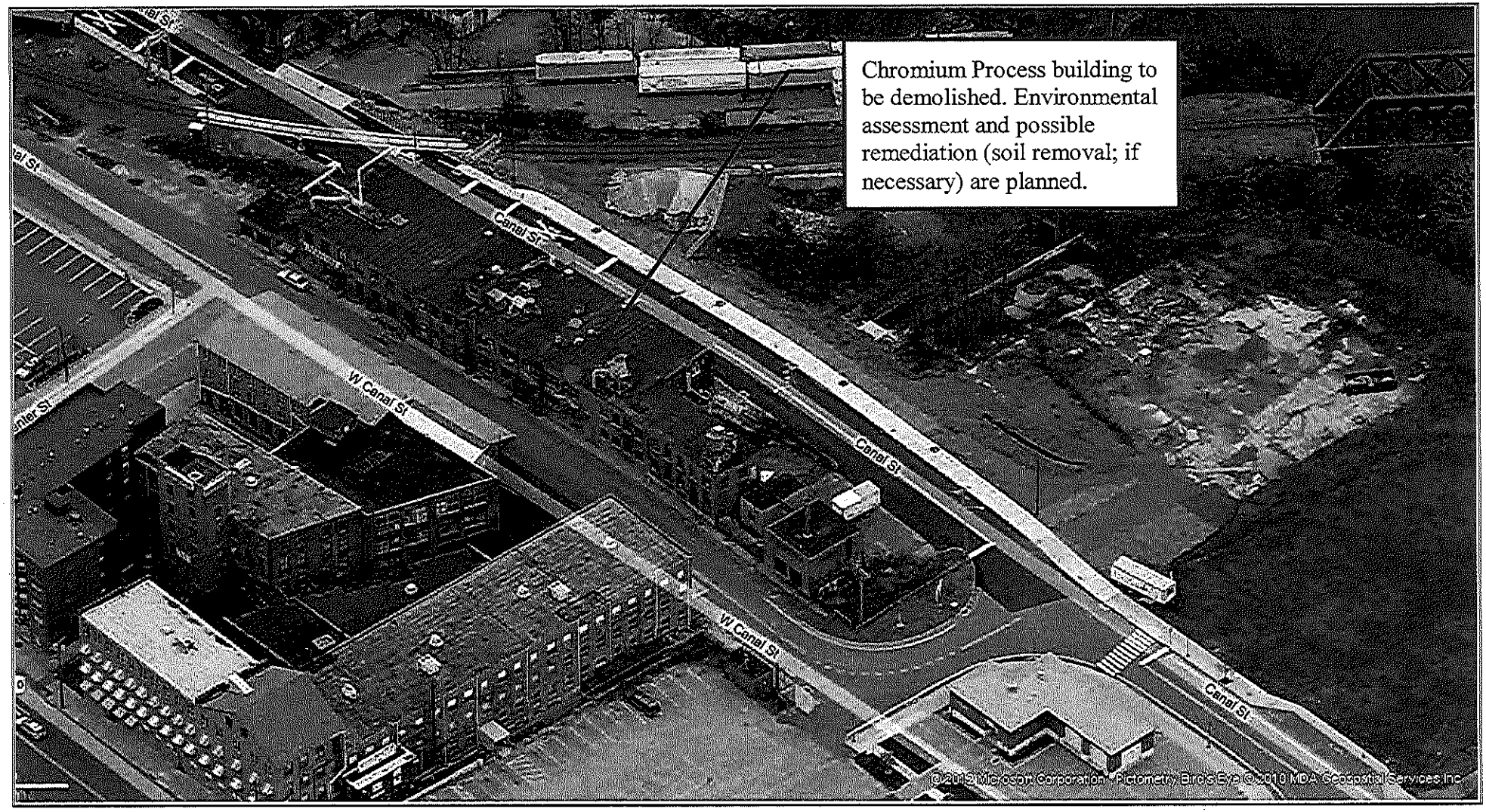
N

FIGURE 1: SITE LOCATION MAP

FORMER CHROMIUM PROCESS FACILITY
CANAL STREET
SHELTON, CT

G:\Projects\HAZWASTE\SheltonCT\Maps\Figure 1 - Site Locus Map.mxd

Figure 2
Application Information
Chromium Process - Shelton



Attachment 1
Application Information
Chromium Process - Shelton

HOME FEMA's National Flood Hazard Layer (Official)

Details | Basemap | Share Print | Measure Find address or place

Legend

NFHL (click to expand)

LOMRs
- Effective

LOMAs

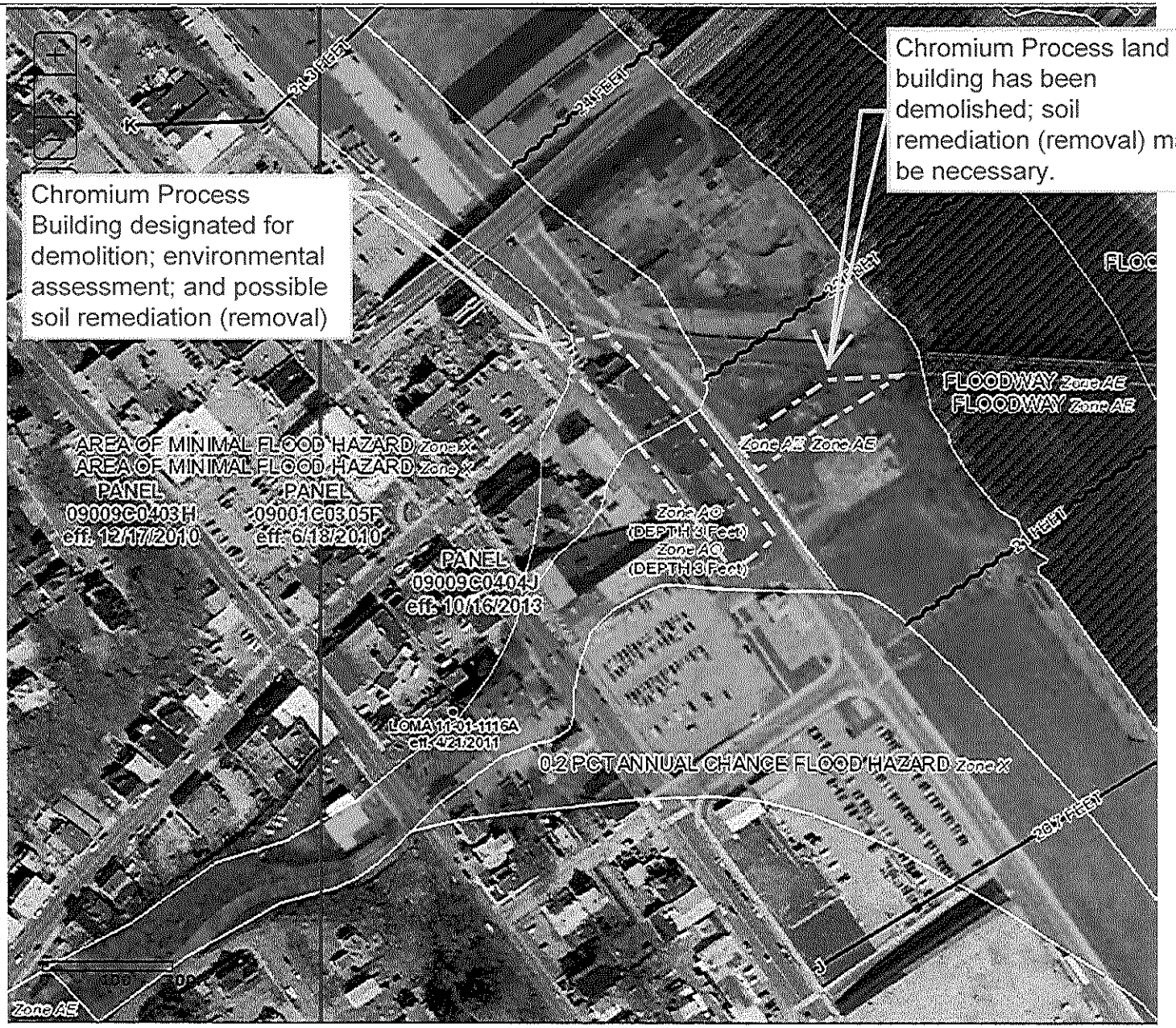
FIRM Panels

Cross-Sections

Base Flood Elevations

Flood Hazard Boundaries
- Other Boundaries
- Limit Lines
- SFHA / Flood Zone Boundary

Flood Hazard Zones
- 1% Annual Chance Flood Hazard
- Regulatory Floodway
- Special Floodway
- Area of Undetermined Flood Hazard
- 0.2% Annual Chance Flood Hazard
- Future Conditions 1% Annual Chance Flood Hazard
- Area with Reduced Risk Due to Levee



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Attachment 2
Application Information
Chromium Process - Shelton

MAP SCALE 1" = 1000'

500 0 1000 2000 FEET

METER

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0305F

FIRM

FLOOD INSURANCE RATE MAP

FAIRFIELD COUNTY, CONNECTICUT
(ALL JURISDICTIONS)

PANEL 305 OF 626
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
SHELTON, CITY OF	090014	0305	F

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

MAP NUMBER
09001C0305F

EFFECTIVE DATE
JUNE 18, 2010

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

Attachment 3
Application Information
Chromium Process - Shelton

Connecticut Department of
ENERGY &
ENVIRONMENTAL
PROTECTION

79 Elm Street • Hartford, CT 06106-5127 www.ct.gov/deep Affirmative Action/Equal Opportunity Employer

AUG 2

FLOOD MANAGEMENT CERTIFICATION

CT Department of Economic and Community Development
505 Hudson Street
Hartford, CT 06106-7106

Attn: Michael Lettieri, Community Development Director

Re: **Approval of Certification**
201406879-FM
Flood Management General Certification for Minor Activities
Statewide, CT

Dear Mr. Lettieri:

The Inland Water Resources Division of the Department of Energy & Environmental Protection has reviewed the flood management certification application prepared by Christine Marques of the Department of Economic and Community Development, and signed by Michael Lettieri of the Department of Economic and Community Development ("Certifying Agency").

The certification document dated June 9, 2014 states that the proposed activity has been designed in compliance with the requirements of Section 25-68d(b) of the Connecticut General Statutes (CGS) and Section 25-68h-1 through 25-68h-3 of the Regulations of Connecticut State Agencies (RCSA).

The proposed application is to modify an existing Flood Management Certification (FM-201205426). DECD is proposing to add an additional category to the original certification. The new category will allow for the installation of new or replacement of existing utility infrastructure that causes no hydraulic impacts or net changes to impervious area that would increase peak flows. No other changes are proposed to the existing FMC approval issued on July 24, 2012. There are currently fourteen types of activities which will occur throughout the state: 1) Streetscape Projects; 2) Minor Stormwater Drainage Installation and Improvements; 3) Minor Bridge Repairs; 4) Minor Roadway Re-Alignment or Intersection Improvements; 5) Subsurface Investigations and Excavations related to Archaeological Surveys and Environmental Site Assessments; 6) Demolition of an Existing Structure; 7) Repair or Installation of Septic Systems and Community Water Supply Wells; 8) Bulkhead Repair or in-kind Replacement; 9) Rehabilitation / Replacement of Existing Dock Structures; 10) Waterfront Development and Dredging Projects; 11) Environmental Remediation; 12) Housing Rehabilitation Projects (minor activities); 13) Public Building Rehabilitation Projects (minor activities); 14) Historic Structure Rehabilitation Projects. A description of each type of activity and a flood contingency plan are included for all activities.

The above referenced certification is hereby approved with the following conditions:

Special Conditions:

1. The following practices shall be followed for **ALL** activities covered under this General Certification:
   - Prohibits activities within the floodway unless identified within the approved activities
   - Proper erosion and sedimentation controls will be utilized in conjunction with Best Management Practices as outlined in Connecticut Guidelines for Soil Erosion and Sediment Control
   - Proper Stormwater quality measures in accordance with the DEP 2004 Connecticut Stormwater Quality Manual
   - Any temporary facilities or equipment requiring work in, or placement in a waterway, must be able to be removed in a timely manner from the site in case of a flood warning, except for items designed as temporary structures, in accordance with the guidelines outlined in the CTDOT Drainage Manual for Temporary Hydraulic Structures
   - Temporary facilities will allow for the passage of fish with minimal disturbance
   - Unconfined in-stream work must be limited to the period June 1 to September 30th
   - The activity will have no increase in peak flow leaving the project site
   - Any minor grading within the floodplain must demonstrate that there are no adverse hydraulic impacts caused from the proposed activity
   - Grading and placement of not greater than twenty five (25) cubic yards of fill is allowed in a regulated area for temporary access to the site of such activity provided that: 1) all temporary fill is removed, 2) the top of roadway is no more than one foot above existing grade, 3) any disturbed areas are restored within one year of authorization.

Operating Conditions:

1. This approval shall expire ten years after issuance or if the construction of any structures or facilities authorized herein is not commenced within three years of issuance of this approval.

2. The Certifying Agency may not make any alterations, except de minimis alterations, to any structure, facility, or activity authorized by this certification unless the Certifying Agency applies for and receives a modification of this certification. A de minimis alteration means a change in the design or operation of the authorized permit that does not increase its adverse environmental or other regulatory impacts.

3. In constructing or maintaining any structure or facility or conducting any activity authorized herein, or in removing any such structure or facility, the Certifying Agency shall employ best management practices to control storm water discharges, to prevent erosion and sedimentation, and to otherwise prevent pollution of wetlands and other waters of the State. The Certifying Agency shall immediately inform the Commissioner of any adverse impact or hazard to the environment which occurs or is likely to occur as the direct result of the construction, maintenance, or conduct of structures, facilities, or activities authorized herein. Best Management Practices include, but are not limited, to practices identified in the *Connecticut Guidelines for Soil Erosion and Sediment Control* as revised, *2004 Connecticut Stormwater Quality Manual*, Department of Transportation's *ConnDOT Drainage Manual* as revised, and the Department of Transportation Standard Specifications as revised.

4. All temporary structures, cofferdams, and fill shall not impede the movement of flood flows and shall be removed at the completion of their use. The design of such temporary structure, cofferdams and fill shall be based on the DOT Drainage Manual, where applicable. All temporary and permanent fill shall be clean and free of stumps, rubbish, hazardous and toxic material.

5. The Certifying Agency shall cause remove equipment and materials to be removed from the floodplain during periods when flood warnings have been issued or are anticipated by a responsible federal, state or local agency. It shall be the Certifying Agency's responsibility to obtain such warnings when flooding is anticipated.

This authorization is subject to and does not derogate any present or future property rights or other rights or powers of the State of Connecticut, conveys no property rights in real estate or material nor any exclusive privileges, and is further subject to any and all public and private rights and to any federal, state, or local laws or regulations pertinent to the property or activity affected thereby. No revisions or alterations to the approved plans are allowed without first obtaining written approval from this Division of such alterations.

If there are any questions, contact Sharon Yurasevecz of the Inland Water Resources Division at 860-424-3861.

Sincerely,

8/22/14
Date

Cheryl A. Chase, Director
Inland Water Resources Division

CAC/SKY

Appendix D

Public Notice Documentation

Attachment C

RECEIVED JAN - 3 2014

Connecticut Department of
ENERGY &
ENVIRONMENTAL
PROTECTION

79 Elm Street • Hartford, CT 06106-5127 www.ct.gov/deep Affirmative Action/Equal Opportunity Employer

December 30, 2013

Mr. James E. Ryan, President
Shelton Economic Development Corporation
475 Howe Avenue, Suite 202
Shelton, CT 06484

Subject: State Letter for City of Shelton for 113A Canal Street in Shelton

Dear Mr. Ryan,

The Remediation Division of the Connecticut Department of Energy and Environmental Protection (DEEP) acknowledges that the City of Shelton has stated its intent to conduct and/or oversee cleanup activities if Brownfields grant funds for cleanup, as authorized by the Small Business Liability Relief and Brownfields Revitalization Act, signed into law on January 11, 2002, are awarded by EPA. The City of Shelton is submitting an application for clean-up funding for the following site:

- 113A Canal Street in Shelton

Please note that at any site for which the applicant receives cleanup funding from EPA, cleanup work will have to be performed in one of Connecticut's formal remediation programs, including Connecticut's Voluntary Remediation program pursuant to CGS § 22a-133x, Connecticut's Property Transfer Program, (if applicable) or the Urban Sites Remedial Action Program.

To reflect participation in the 133x Voluntary Remediation program, the work plan and budget for this site should include the following elements:

- Preparation and submittal of the completed Environmental Condition Assessment Form (ECAF) and associated documents.

A DEEP fact sheet describing the voluntary remediation program pursuant to Section 22a-133x of the CT General Statutes is available from the DEP website at http://www.ct.gov/dep/cwp/view.asp?a=2715&q=325024&depNav_GID=1626 .

If you have any questions about this letter, please contact me at (860) 424-3800 or by e-mail at Baffour.Kyei@ct.gov. Good luck with your application.

Sincerely,

Baffour Kyei
Remediation Division
Bureau of Water Protection and Land Reuse
CT Department of Energy and Environmental Protection

BK:bk
cc: Mayor Mark A. Lauretti (via email)

ATTACHMENT G

CONNECTICUT POST

410 State Street • Bridgeport, CT 06604

Shutlick ECONOMIC DEV. CORP.
475 HOWE AVENUE
SHELTON CT 06484

PUBLIC NOTICE

The Shelton Economic Development Corporation (SEDC), acting on behalf of the City of Shelton, hereby invites Public Comment on two draft applications for U. S. EPA brownfields grants for the environmental assessment and cleanup along the city's Canal Street revitalization area. For 2014, the assessment grant will be conducted to support cleanup planning actions at numerous properties. The cleanup grant will target the 113A Canal Street East parcel which is owned by the City of Shelton. Each grant is valued at $200,000. Historical documentation on the site is located at the SEDC office at 475 Howe Avenue, Suite 202, Shelton.

A public meeting of the Citizens Advisory Board with the assistance of the SEDC will be held on Wednesday, January 8, 2014, at 7:30 PM at the SEDC offices, 475 Howe Avenue, Suite 202, Shelton, Connecticut to review the grant application. The SEDC office is handicapped accessible. If requested, assistance will be provided to anyone with additional needs, including language interpretation and hearing.

A draft version of the application can be found at the office of the SEDC after Friday, January 3, 2014, and on the internet at the following location: www.cityofshelton.org. Written public comments should be submitted to Mr. James E. Ryan, President, Shelton Economic Development Corporation, 475 Howe Avenue, Suite 202, Shelton, Connecticut 06484.

By: James E. Ryan, President
Shelton Economic Development Corporation
475 Howe Avenue
Shelton, CT 096484
(203) 924-2521 sedc1@sheltonedc1.com

CONNECTICUT POST
CERTIFICATE OF PUBLICATION

This is to certify that the attached advertisement was published in the Connecticut Post newspaper as stated below.

Rosa Hurtado
(Advertising Representative)

Subscribed and sworn to before me, on this 31st day of December, A.D. 2013

Pamela E. Calvente
Notary Public
State Commission Expires 1/31/2018

PO Number

Amount
$375.20

Publication
Connecticut Post

Ad Number
0001945510-01

Ad Caption
PUBLIC NOTICE The Shelton E

Publication Schedule
12/27/2013

City of Shelton, Citizens Advisory Board

Agenda for January 2014 SPECIAL Meeting

To: City of Shelton, City Clerk, SEDC, Citizens Advisory Board Members

From: James Oram, Chairperson

Date: January 6, 2014

A SPECIAL meeting of the Citizens Advisory Board will be held on **Wednesday January 8, 2014**,at **7:30 PM**, at the SEDC Office, 475 Howe Avenue Suite 202,Shelton CT.

AGENDA:

Solicit and provide public comment on two draft applications for U. S. EPA brownfields grants for the environmental assessment and cleanup along the city's Canal Street revitalization area.

1. A $200,000 assessment grant to support cleanup planning actions at numerous properties.

2. A $200,000 cleanup grant will target the 113A Canal Street East parcel, which is owned by the City of Shelton.

The public is invited to attend, and may contact James F. Oram at**jamesf45@sbcglobal.net** or call(203) 924-9134 (afternoons or evenings)

Special Meeting
of the
Citizens Advisory Board
and the
Shelton Economic Development Corporation

Wednesday, January 8, 2014

Time: 7:30 PM

Location: SEDC Offices, 475 Howe Avenue, Suite 202, Shelton

Attendees: James Oram, Chairman – Citizens Advisory Board
James Ryan, President – Shelton Economic Development Corporation
Richard Widomski, resident, Joseph Bienkowski, member, Guy Beardsley, member, Rebecca Twombly, member, Joseph DeFilippo, member, and Elizabeth Kingsersky.

Mr. Ryan opened the hearing section at 7 PM.

He then presented the following:

1. History of cleanup efforts in the Downtown Revitalization area.
2. Reviewed legal notice
3. Reviewed agenda
4. Reviewed the cleanup grant and discussed cleanup alternatives.
5. Reviewed the assessment grant
6. Noted that a possible regional grant might be applied for from the CT DECD
7. Reviewed the letters of support that had been received.

With a quorum being met, the meeting was called to order at 7:11 PM

Richard Widomski indicated that he supported the applications and inquired why the draft applications could be shared with the public as other draft information normally isn't. Mr. Ryan indicated that is customary to make draft applications available and that although he saw no issues he would double check.

A general discussion ensued and the Board then moved to send a letter of support for both application and the motion was approved unanimously, for the following activities.

1. $200,000 assessment grant to support cleanup planning actions at numerous properties.

2. 200,000 cleanup grant will target the 113A Canal Street East parcel, which is owned by the City of Shelton.

The meeting adjourned by unanimous vote at 7:55 PM.

CITY OF SHELTON
CITIZENS ADVISORY BOARD
54 HILL STREET
SHELTON, CT 06484

January 7, 2014

Mayor Mark A. Lauretti
City of Shelton
54 Hill Street
Shelton, CT 06484

RE: U. S EPA Grant Applications

Dear Mayor Lauretti:

This letter is to voice our support and show our commitment for the city's applications to the U. S. EPA for a city-wide assessment grant and a cleanup grant for the Chromium Process parcel. As you know, the Citizens Advisory Board has given its endorsement to the revitalization efforts taking place within our city. The city has already shown considerable success in attracting private investment especially in an area that has already been environmentally rehabilitated downtown with the construction of two large residential projects, the Birmingham Condominiums and the new Avalon Bay rental properties. These developments exemplify the potential of public/private partnerships.

If these grants are awarded to the city, it will begin the next step in our efforts to continue the progress that has already been evidenced. As you are aware, there are a number of other former industrial properties that would benefit from revitalization efforts similar to those already conducted. Assessment and cleanup of downtown and citywide sites is an essential element of our progress.

A meeting is being held on Wednesday, January 8, 2014, to review and discuss these applications and provide specific brownfields initiatives . We pledge to continue to hold brownfields information sessions at our publicly-held monthly meetings, where our board is continuously updated on these redevelopment efforts by the President of the Shelton Economic Development Corporation. Our board will continue to urge and provide citizen involvement and is prepared to further engage the community by hosting public hearings as may be required specific to this application and other applications. Meetings will be held jointly with other city agencies to comment on cleanup and assessment activities. As part of the monthly meetings, we will post and recruit public participation for special meetings on specific brownfields topics.

Furthermore, we will review the City's candidate sites for the assessment work. We have already endorsed the City's plan for downtown revitalization, but, as conditions change, we will continue to

review plans as priorities are updated. Our board will provide public driven input for grant spending on each candidate assessment.

We support the inclusion of this information in the city's quarterly Shelton Life newsletter which is widely available to all Shelton residents. Our board will review and comment on the brownfields related articles for each issue following their publication.

Shelton's community partnerships have been very successful in combining local, state, and federal funds to remove or remediate much of the environmental legacy that stems from our once industrial downtown.

Very truly yours,

James F. Oram
Chairperson

98 Bank Street ◦ Seymour, CT 06483 ◦ Tel: (203) 881-3255 ◦ Website: nvhd.org

January 8, 2014

Mayor Mark A. Lauretti
City of Shelton
54 Hill Street
Shelton, CT 06484

RE: U. S. EPA Grant Applications

Dear Mayor Lauretti:

The Naugatuck Valley Health District ("NVHD") endorses the City of Shelton's applications to the U. S. EPA for a city-wide brownfields assessment grant and for a cleanup grant for the Chromium Process parcel. The NVHD has previously given its endorsement to the environmental remediation efforts in the Shelton downtown revitalization area. The existing remediation efforts have resulted in the reclamation of previously contaminated and unusable areas that are now available for public use.

In addition to our endorsement, the NVHD plans to be part of the review process of any future and continuing rehabilitation efforts ensuring all health standards are met. We understand that prior to environmental assessment work, the contractors will prepare health and safety protocols that will be protective of the workers and the general public. We will review these and provide comments as necessary that are related to appropriate health precautions.

The NVHD believes it is in the interest of public health to promote the rehabilitation and reclamation of contaminated properties; as such rehabilitation is beneficial to the health of residents within our district.

Very truly yours,

Karen N. Spargo, MA, MPH, RS
Director of Health

Housatonic Valley Association

150 Kent Road
P.O. Box 28
Cornwall Bridge, CT 06754
860-672-6678

1383 Pleasant Street
P.O. Box 251
South Lee, MA 01260
413-394-9796

19 Furnace Bank Road
P.O. Box 315
Wassaic, NY 12592
845-789-1381

www.hvatoday.org

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January 20, 2014

Mayor Mark A. Lauretti
City of Shelton
54 Hill Street
Shelton, CT 06484

RE: U. S EPA Grant Applications

Dear Mayor Lauretti:

It is our understanding the City of Shelton will be applying to the U. S. EPA for consideration of a citywide assessment grant for work associated with the downtown revitalization as well as a cleanup grant for the Chromium Process parcel.

The Housatonic Valley Association (HVA) is pleased to wholeheartedly support this initiative.

HVA's mission is to conserve the natural character and environmental health in the 83 communities of the Housatonic River watershed. We work directly and in partnership with municipal leadership, grassroots groups and individuals to achieve our principal objectives of land protection, water protection and community education. Shelton hosts public meetings through their Citizens Advisory Board and local agencies, and it is our intention to participate in these meetings to review plans and provide public input related to river preservation and well-being.

For over twenty years HVA has partnered in numerous projects and initiatives in southern Housatonic Valley communities. We are pleased to have collaborated with the City of Shelton and the Shelton Economic Development Corporation on numerous occasions. We share the city's pride and accomplishment in its restoration and renewal of the Housatonic riverfront and the downtown area. Shelton's riverfront restoration is a shining example to other Housatonic Riverfront communities. HVA is proud to partner with Shelton leaders as this vital work continues.

If you require additional information, please feel free to contact me at 860.672.6678 most weekdays.

Very truly yours,

Lynn A. Werner
Executive Director

Member of EarthShare New England

BOYS & GIRLS CLUB
OF THE LOWER NAUGATUCK VALLEY

January 7, 2014

Mayor Mark A. Lauretti
City of Shelton
54 Hill Street
Shelton, CT 06484

RE: U.S. EPA Grant Applications

Dear Mayor Lauretti,

The Boys & Girls Club of the Lower Naugatuck Valley serves over 500 children daily. The location of this Club is in close proximity to the City of Shelton's downtown revitalization area. In fact, the Club itself is located in a former industrial building that was rehabilitated for its current use in 1999. While this location has served well in the Club's recent history, it is somewhat less than ideal in that it borders a number of vacant industrial buildings, each with their own environmental concerns. If the revitalization effort is able to continue north towards the Club property, it would make the area immediate to the Club more desirable for the use of the youth that we serve.

The City of Shelton continues to keep the Club apprised of proposed activities and ongoing remediation efforts. To show our support, we plan to offer the following:

1. Use of our space for disseminating public information related to the redevelopment of the neighborhood.
2. Provide information to our kids' parents to alert them to the positive changes that are coming and make them aware of their ability to participate in information sharing and report review.
3. Provide outreach and education to the hundreds of kids that use our facility to increase their awareness of the impacts of unhealthy brownfields and the benefits to environmental cleanup and development.

On behalf of the Boys & Girls Club of the Lower Naugatuck Valley, I strongly support the City of Shelton's applications to the U.S. EPA for a city-wide assessment grant and a cleanup grant of the Chromium Process land. This can only have a positive impact on many of the children and families the Club serves from this geographic and socioeconomic area within Shelton. We have worked closely with the City of Shelton for many years, helping make the city a better place for our children, and we certainly support this application to continue those efforts for generations to come.

Very truly yours,

Shaye A. Roscoe
Executive Director

SAR:amw

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Business Office One Positive Place ♦ Shelton, CT 06484 ♦ 203-924-7462 ♦ www.BGC-LNV.com ♦ BGCALNV@hotmail.com

Established in 1926 as the Community Building

A United Way Agency

Derby-Shelton Rotary
P. O. Box 224
Shelton CT 06484
District 7980/Club 6722

January 8, 2014

Mayor Mark A. Lauretti
City of Shelton
54 Hill Street
Shelton, CT 06484

RE: U. S EPA Grant Applications

Dear Mayor Lauretti:

As President of the Derby-Shelton Rotary Club, we understand the City of Shelton will be applying for consideration of a grant from the U. S. EPA for a city-wide assessment of its brownfields' parcels as well a cleanup grant for the Chromium Process parcel. In Shelton and throughout Connecticut, EPA and its brownfields' assessment and remediation programs have played an integral part of ongoing efforts to revitalize communities.

The construction of a $460,000 Pavilion in the downtown on a former brownfields site in collaboration with our Rotary Club and the City of Shelton is proof of continued reformation of this once blighted area. In close proximity to the existing Farm and Public Market and Veterans Memorial, the Pavilion has already provided a venue for dances and gatherings.

Over the years, you have met each of the difficult challenges faced when revitalizing former industrial sites. Your efforts have yielded public support, private partnerships, regional participation and a well thought out plan for economic development. In particular, the partnerships you have helped cultivate along with the Shelton Economic Development Corporation (SEDC) and the federal, state and private entities, over the years have resulted in one of the Valley's most successful downtown revitalization efforts

The Rotary Club meets weekly whereby our members through outreach have been able to solicit input from the public on upcoming grant applications and current grant awards in Shelton. The Rotary Club also engages the Citizens Advisory Board for input on site assessments and priorities within downtown. Progress continues and we believe the consideration of an award of these grants is vital to the ongoing efforts of Shelton and will provide resources to inventory, characterize, assess and conduct planning related activities throughout the city. It will help to continue the significant progress you have made in economic development.

The Derby-Shelton Rotary Club is pleased to support this application which will have a major local impact.

Very truly yours,

William M. Miller, Jr.
President

City of Ansonia
253 Main Street
Ansonia, Connecticut 06401

January 7, 2014

Mayor Mark Lauretti
City of Shelton
54 Hill Street
Shelton, CT 06484

Dear Mayor Lauretti:

As chairperson of the Naugatuck Valley Corridor/Economic Development District (NVC EDD), I am writing this letter in strong support of the City of Shelton's applications for funding for city-wide assessment of its brownfields parcels and for cleanup of the Chromium Process parcel.

The City of Ansonia which is a member of this CEDS partnership will include the Shelton Economic Development Corporation on their agenda for a regional program update on their brownfields best practices at least once a year with the 18 towns and cities in this district. As Chairperson, I will provide a platform to help Shelton partner regionally. As a neighboring community and partner, the City of Ansonia is pleased to support Shelton in this manner as it will have major local and regional significance by connecting ideas and fostering regional partnerships for development.

I believe these grants are vital to the ongoing efforts of Shelton and the region and will provide resources to inventory, characterize, assess and conduct planning related activities throughout the city. It will help continue the significant progress you have made in economic development.

Very truly yours,

Sheila O'Malley
Chairperson
NVC/EDD