

Phase II Environmental Site Assessment REPORT

**424-444 Chapel Street
New Haven, Connecticut**

ConnDOT Assignment No. 214-5208
ConnDOT Project No. 0092-0531-3A

Prepared for:



State of Connecticut
Department of Transportation
Newington, Connecticut 06131

Prepared by:



CDR Group Inc.
2080 Silas Deane Highway
Rocky Hill, Connecticut 06067

September 19, 2016

TABLE OF CONTENTS

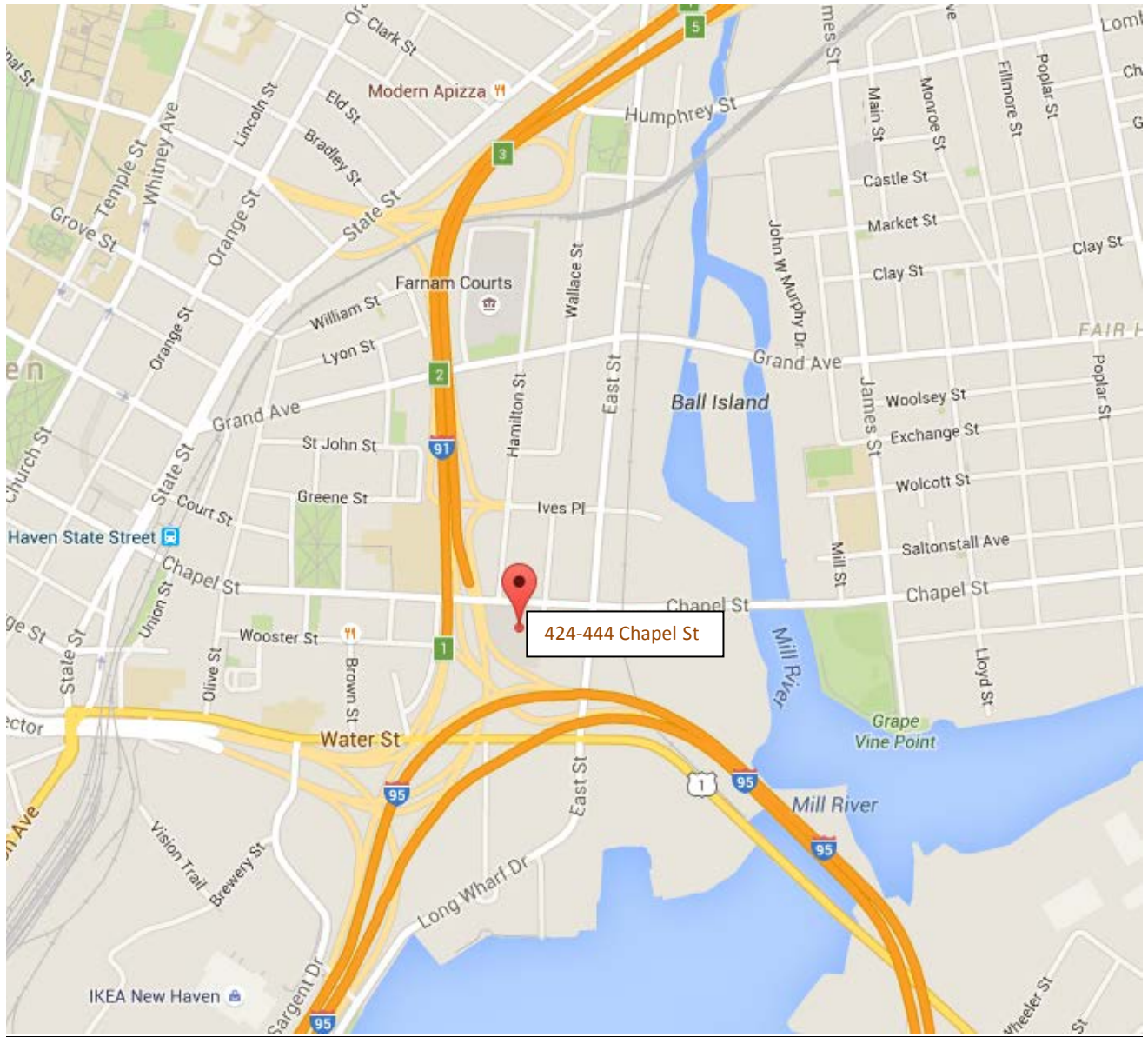
	Page Number
1.0 INTRODUCTION	1
2.0 SITE DESCRIPTION	3
2.1 Background	3
2.2 Geology	3
2.3 Hydrology	3
3.0 PRELIMINARY CONCEPTUAL SITE MODEL	5
4.0 SUBSURFACE INVESTIGATION	6
4.1 Geoprobe® Soil Borings & Soil Sample Analyses	6
4.2 Groundwater Sample Collection and Analyses	12
4.3 Project Quality Assurance/Quality Control Practices	12
5.0 DISCUSSION OF SAMPLE RESULTS	14
5.1 Regulatory Criteria	14
5.2 Results of Soil Sample Analyses	17
5.3 Results of Groundwater Sample Analyses	23
5.4 Results of QA/QC Sample Analyses	24
5.5 Data Quality Assessment and Data Usability Evaluation (DQA/DUE)	24
6.0 SUMMARY AND CONCLUSIONS	25
7.0 REVISED CONCEPTUAL SITE MODEL	29
8.0 RECOMMENDATIONS	30
9.0 LIMITATIONS	31
 FIGURES	
Figure 1 – Site Location Plan	2
Figure 2 – Phase II Environmental Site Assessment - Boring Location Plan	
 TABLES	
Table 1(a) to 1(i) – Results of Soil and Concrete Sample Analyses	
Table 2(a) – Results of Groundwater Sample Analyses	
Table 3(b) – Results of QA/QC Sample Analyses	
 APPENDIX A – Boring Logs	
APPENDIX B – Laboratory Reports (CD)	
APPENDIX C – DQA & DUE Worksheets	

1.0 INTRODUCTION

On behalf of the Connecticut Department of Transportation (CTDOT), CDR Group Inc. (CDRG) conducted a Phase II Environmental Site Assessment (Phase II ESA) on the property located at 424-444 Chapel Street in New Haven, Connecticut. Figure 1 depicts the Site Location.

CDRG conducted a Phase I Environmental Site Assessment (Phase I ESA) of the Site in April 2016. The results of the Phase I ESA indicated that there were shipments of hazardous waste from the 444 Chapel Street parcel subsequent to a Negative Declaration Form I filing dated October 24, 1986. The Phase I ESA indicated that 444 Chapel Street appears to meet the definition of an “Establishment” and would be subject to the provisions of the Property Transfer Program (PTP) and required form filings in subsequent transfers of the property. The CT DOT elected to perform a Phase II ESA on the property to inform potential purchasers of the property on the site’s environmental conditions in preparation of a potential property transfer.

This Phase II ESA was conducted on the 444 Chapel Street portion of the Site only. The purpose of this Phase II ESA is to evaluate the current environmental condition of the Site and to determine if “releases” to soil and groundwater have occurred from chemicals, hazardous substances or petroleum products.



**FIGURE 1 - SITE LOCATION
PLAN
424-444 Chapel Street
New Haven, Connecticut**

2.0 SITE DESCRIPTION

2.1 Background

The Site is located at 424-444 Chapel Street in New Haven, Connecticut and is currently used as CTDOT District 3A offices and the I-95 New Haven Program Management Office. The property is bounded by South Wallace Street to the east, Chapel Street to the north, Interstate 91 (I-91) to the west, Interstate 95 (I-95) and the ramp connecting I-95 to I-91 to the south. Properties adjacent to the Site include residential and commercial properties. The site area and boring locations are shown on Figure 2 – Phase II ESA, Boring Location Plan included at the end of this Report.

2.2 Geology

The Bedrock Geological Map of Connecticut, compiled by John Rodgers in 1985, indicates that the bedrock unit underlying Site is the New Haven Arkose which is described as reddish, poorly sorted arkose. Bedrock outcrops were not observed on the Site. Bedrock was not encountered in any of the borings advanced during this investigation.

The CTDEEP's August 2009 Surficial Materials, New Haven, Connecticut map indicates that the surficial materials on Site are glacial meltwater deposits consisting of sand and gravel overlying sand overlying fines. Dark-brown fine to medium sand, little silt with trace asphalt and brick overlying red-brown fine to coarse sand and gravel was encountered in borings advanced during this investigation.

2.3 Hydrogeology

The CTDEEP's "Environmental GIS Data for Connecticut" (Dated November 2015) depicts the groundwater classification for the Site as "GB". The "GB" groundwater classification indicates that the groundwater is not suitable for consumption due to waste discharges, spills or leaks of chemicals, or land use impacts, and a public water supply is available. Groundwater was

encountered a depth of fifteen (15) feet below grade in the existing monitoring wells at the Site.

The Site is located within the South Central Shoreline Basin within the South Central Coast Major Basin. There are no surface water bodies on or adjacent to the Site.

3.0 PRELIMINARY CONCEPTUAL SITE MODEL

The following Preliminary Conceptual Site Model (CSM) was developed for the 444 Chapel Street property based on the results of the Phase I ESA.

TABLE 1 – PRELIMINARY CONCEPTUAL SITE MODEL

Potential Area of Concern (PAOC)	Description	Contaminants of Concern (COC)
1	Loading/Unloading Areas	ETPH, VOCs, SVOCs & metals
2	Wallace Street Loading/Unloading Area	ETPH, VOCs, SVOCs & metals
3	Floor Drains	ETPH, VOCs, SVOCs, & metals
4	Former Solvent Tank	ETPH, VOCs, SVOCs & metals
5	Solvent Area Floor Drain	ETPH, VOCs, SVOCs & metals
6	Dumpster	ETPH, VOCs, SVOCs & metals
7	Waste Oil Area Floor Drains	ETPH, VOCs, SVOCs, PCBs & metals
8	Former Gasoline USTs	ETPH, VOCs, SVOCs & metals
9	Former Waste Oil UST	ETPH, VOCs, SVOCs, PCBs & metals

This Phase II ESA was conducted within the Potential Areas of Concern (PAOCs) identified at the Site.

4.0 SUBSURFACE INVESTIGATION

Based upon the results of the Phase I ESA, a comprehensive sampling program was conducted at the Site within the identified PAOCs. The following subsections detail the investigation that was conducted on August 24 and 25, 2016.

4.1 Geoprobe® Soil Borings & Soil Sample Analyses

A total of nineteen (19) borings, GP-1 to GP-10 and GP-12 to GP-20 were advanced within the PAOCs to groundwater or refusal, utilizing a Geoprobe® direct push unit, as part of this Phase II ESA.

PAOC-1 Loading/Unloading Areas

Four (4) borings, GP-1, GP-2, GP-3 and GP-4, were advanced within PAOC-1 Loading/Unloading Areas. Three (3) borings, GP-1 to GP-3, were advanced on the exterior and one (1) boring, GP-4, was advanced within the interior of the garage as shown on Figure 2. The concrete slab was cored to allow collection of concrete and sub-slab soil samples for boring GP-4.

The soil samples were visually inspected in the field for staining, and were described as to physical characteristics and soil type. Soil boring logs were generated in the field by the on-site qualified technician (See Appendix A – Boring Logs). In addition, the soil samples were screened in the field for total volatile organic compounds utilizing a Photovac photoionization detector (PID).

Based upon field screening results and visual observations, one (1) soil sample (1'-4' below grade) from each boring (GP-1 through GP-3) was placed in laboratory-supplied glassware and stored in an ice-filled cooler. In addition, one (1) concrete sample and one (1) sub-slab soil sample was collected from the boring GP-4 within the interior of the garage.

The samples collected from PAOC-1 were analyzed for the following parameters:

- Extractable Total Petroleum Hydrocarbons – CT-ETPH Method
- Volatile Organic Compounds – EPA Method 8260
- Semi-Volatile Organic Compounds - EPA Method 8270
- Total and TCLP RCRA 8 metals – EPA Method SW846

PAOC-2 Wallace Street Loading/Unloading Area

Three (3) borings, GP-6, GP-7, and GP-8, were advanced within PAOC-2 Wallace Street Loading/Unloading Area as shown on Figure 2 at the end of this Report.

The soil samples were visually inspected in the field for staining, and were described as to physical characteristics and soil type. Soil boring logs were generated in the field by the on-site qualified technician (See Appendix A – Boring Logs). In addition, the soil samples were screened in the field for total volatile organic compounds utilizing a Photovac photoionization detector (PID).

Based upon field screening results and visual observations, one (1) soil sample (1'-4' below grade) from each boring was placed in laboratory-supplied glassware and stored in an ice-filled cooler.

The samples collected from PAOC-2 were analyzed for the following parameters:

- Extractable Total Petroleum Hydrocarbons – CT-ETPH Method
- Volatile Organic Compounds – EPA Method 8260
- Semi-Volatile Organic Compounds - EPA Method 8270
- Total and TCLP RCRA 8 metals – EPA Method SW846

PAOC-3 Floor Drains

Three (3) borings, GP-9, GP-15, and GP-20, were advanced within PAOC-3 Floor Drains. One (1) boring, GP-20, was advanced on the exterior and two (2) borings, GP-9 and GP-15, were advanced within the interior of the garage as shown on Figure 2 at the end of this Report. The concrete slab was cored to allow collection of concrete and sub-slab soil samples.

The soil samples were visually inspected in the field for staining, and were described as to physical characteristics and soil type. Soil boring logs were generated in the field by the on-site qualified technician (See Appendix A – Boring Logs). In addition, the soil samples were screened in the field for total volatile organic compounds utilizing a Photovac photoionization detector (PID).

Based upon field screening results and visual observations, one (1) soil sample was collected from boring GP-20, placed in laboratory-supplied glassware and stored in an ice-filled cooler. Due to poor recovery, soil from 1'-8' below grade was collected from boring GP-20 and submitted for

laboratory analyses. In addition, one (1) concrete sample and one (1) sub-slab soil sample was collected from each interior boring GP-9 and GP-15.

The samples collected from PAOC-3 were analyzed for the following parameters:

- Extractable Total Petroleum Hydrocarbons – CT-ETPH Method
- Volatile Organic Compounds – EPA Method 8260
- Semi-Volatile Organic Compounds - EPA Method 8270
- Total and TCLP RCRA 8 metals – EPA Method SW846

PAOC-4 Former Solvent Tank

One (1) boring, GP-10, was advanced within PAOC-4 Former Solvent Tank as shown on Figure 2 at the end of this Report. The tank was removed from the Site in 2008 and the closure samples collected during the removal did not indicate the presence of VOCs, SVOCs and PCBs at concentrations above analytical detection limits (ND). Total and leachable RCRA metals and ETPH were detected in the closure samples but at concentrations below RSR criteria. A copy of the Underground Storage Tanks Closure Report dated December 17, 2008 was included in Appendix C of the Phase I ESA prepared for the Site.

The soil sample was visually inspected in the field for staining, and was described as to physical characteristics and soil type. A soil boring log was generated in the field by the on-site qualified technician (See Appendix A – Boring Logs). In addition, the soil sample was screened in the field for total volatile organic compounds utilizing a Photovac photoionization detector (PID).

Based upon field screening results and visual observations, one (1) soil sample was collected from the boring. Due to poor recovery soil from 1'-8' below grade was collected from boring GP-10 and submitted for laboratory analyses.

The sample collected from PAOC-4 was analyzed for the following parameters:

- Extractable Total Petroleum Hydrocarbons – CT-ETPH Method
- Volatile Organic Compounds – EPA Method 8260
- Semi-Volatile Organic Compounds - EPA Method 8270
- Total and TCLP RCRA 8 metals – EPA Method SW846

PAOC-5 Solvent Floor Drain Area

One (1) boring, GP-12, was advanced in the interior of the garage within PAOC-5 Solvent Floor

Drain Area as shown on Figure 2 at the end of this Report. The concrete slab was cored to allow collection of concrete and sub-slab soil samples.

The soil sample was visually inspected in the field for staining, and was described as to physical characteristics and soil type. A soil boring log was generated in the field by the on-site qualified technician (See Appendix A – Boring Logs). In addition, the soil sample was screened in the field for total volatile organic compounds utilizing a Photovac photoionization detector (PID).

One (1) concrete sample and one (1) sub-slab soil sample was collected from the boring GP-12 advanced within the interior of the garage. The samples were placed in laboratory-supplied glassware and stored in an ice-filled cooler for laboratory analyses.

The samples collected from PAOC-5 were analyzed for the following parameters:

- Extractable Total Petroleum Hydrocarbons – CT-ETPH Method
- Volatile Organic Compounds – EPA Method 8260
- Semi-Volatile Organic Compounds - EPA Method 8270
- Total and TCLP RCRA 8 metals – EPA Method SW846

PAOC-6 Dumpster

One (1) boring, GP-13, was advanced in within PAOC-6 Dumpster as shown on Figure 2 at the end of this Report. Due to utility conflicts boring GP-13 was advanced utilizing a hand auger. The soil sample was visually inspected in the field for staining, and was described as to physical characteristics and soil type. A soil boring log was generated in the field by the on-site qualified technician (See Appendix A – Boring Logs). In addition, the soil sample was screened in the field for total volatile organic compounds utilizing a Photovac photoionization detector (PID). The soil sample from 0-2' below grade was collected from boring GP-13 and submitted for laboratory analyses.

The soil sample collected from PAOC-6 was analyzed for the following parameters:

- Extractable Total Petroleum Hydrocarbons – CT-ETPH Method
- Volatile Organic Compounds – EPA Method 8260
- Semi-Volatile Organic Compounds - EPA Method 8270
- Total and TCLP RCRA 8 metals – EPA Method SW846

PAOC-7 Waste Oil Area Floor Drains

One (1) boring, GP-14, was advanced in the interior of the garage within PAOC-7 Waste Oil Area Floor Drains as shown on Figure 2 at the end of this Report. The concrete slab was cored to allow collection of concrete and sub-slab soil samples.

The soil sample was visually inspected in the field for staining, and was described as to physical characteristics and soil type. A soil boring log was generated in the field by the on-site qualified technician (See Appendix A – Boring Logs). In addition, the soil sample was screened in the field for total volatile organic compounds utilizing a Photovac photoionization detector (PID).

One (1) concrete sample and one (1) sub-slab soil sample were collected from boring GP-14 and placed in laboratory supplied glassware for laboratory analysis.

The samples collected from PAOC-7 were analyzed for the following parameters:

- Extractable Total Petroleum Hydrocarbons – CT-ETPH Method
- Volatile Organic Compounds – EPA Method 8260
- Semi-Volatile Organic Compounds - EPA Method 8270
- Polychlorinated Biphenyls – EPA Method 8082
- Total and TCLP RCRA 8 metals – EPA Method SW846

PAOC-8 Former Gasoline USTs

Three (3) borings, GP-5, GP-16, and GP-17, were advanced within PAOC-8 Former Gasoline USTs as shown on Figure 2 at the end of this Report. The tanks were removed from the Site in 2008 and the closure samples collected during the removal did not indicate the presence of VOCs and leachable lead at concentrations above analytical detection limits (ND). Total lead was detected in the closure samples but at concentrations below RSR criteria. A copy of the Underground Storage Tanks Closure Report dated December 17, 2008 was included in Appendix C of the Phase I ESA prepared for the Site.

The soil samples were visually inspected in the field for staining, and were described as to physical characteristics and soil type. Soil boring logs were generated in the field by the on-site qualified technician. In addition, the soil samples were screened in the field for total volatile organic compounds utilizing a Photovac photoionization detector (PID).

Based upon field screening results and visual observations, one (1) soil sample from each boring was placed in laboratory-supplied glassware and stored in an ice-filled cooler for laboratory analysis. Due to poor recovery soil from 1'-8' below grade was collected from each boring and submitted for laboratory analyses.

The samples collected from PAOC-8 were analyzed for the following parameters:

- Extractable Total Petroleum Hydrocarbons – CT-ETPH Method
- Volatile Organic Compounds – EPA Method 8260
- Semi-Volatile Organic Compounds - EPA Method 8270
- Total and TCLP RCRA 8 metals – EPA Method SW846

PAOC-9 Former Waste Oil UST

Two (2) borings, GP-18 and GP-19, were advanced within PAOC-9 Former Waste Oil UST as shown on Figure 2 at the end of this Report. The tank was removed from the Site in 2008 and the closure samples collected during the removal did not indicate the presence of VOCs and PCBs at concentrations above analytical detection limits (ND). Total and leachable RCRA metals and ETPH were detected in the closure samples but at concentrations below RSR criteria. A copy of the Underground Storage Tanks Closure Report dated December 17, 2008 was included in Appendix C of the Phase I ESA prepared for the Site.

The soil samples were visually inspected in the field for staining, and were described as to physical characteristics and soil type. Soil boring logs were generated in the field by the on-site qualified technician (See Appendix A – Boring Logs). In addition, the soil samples were screened in the field for total volatile organic compounds utilizing a Photovac photoionization detector (PID).

Based upon field screening results and visual observations, one (1) soil sample from each boring was placed in laboratory-supplied glassware and stored in an ice-filled cooler for laboratory analysis. Due to poor recovery soil from 1'-8' below grade was collected from each boring and submitted for laboratory analyses.

The samples collected from PAOC-9 were analyzed for the following parameters:

- Extractable Total Petroleum Hydrocarbons – CT-ETPH Method

- Volatile Organic Compounds – EPA Method 8260
- Semi-Volatile Organic Compounds - EPA Method 8270
- Total and TCLP RCRA 8 metals – EPA Method SW846

All direct push soil borings were back-filled upon completion utilizing clean sand and/or hydrated bentonite. In paved areas and the building interior, the borehole were filled to 6 inches below existing grade with hydrated bentonite, then patched with asphalt patch or concrete, as appropriate, until flush with the existing pavement or floor slab. All down-hole sampling equipment was decontaminated in the field between each use utilizing an Alconox and water bath and de-ionized rinse.

4.2 Groundwater Sample Collection & Analyses

Two (2) groundwater samples, GW-1 and GW-2, were collected from the existing monitoring wells on the Site utilizing low-flow sampling procedures. The groundwater samples were collected for laboratory analysis of VOCs (EPA Method 8260), SVOCs (EPA Method 8270), ETPH (CT-ETPH Method), PCBs (EPA Method 8082) and Total and Dissolved RCRA 8 metals. The groundwater samples collected for Dissolved RCRA metals were field filtered using a 0.45- μ m membrane filter prior to acidification.

4.3 Project Quality Assurance/Quality Control Practices

The CTDEEP's Quality Assurance and Quality Control (QA/QC) Guidance were used to ensure that the analytical results generated during the investigation are of known and appropriate quality. Specifically, the Laboratory Quality Assurance Quality Control Reasonable Confidence Protocols (RCPs) were utilized for all laboratory analytical methods. The Laboratory Quality Assurance and Quality Control, Data Quality Assessment and Data Usability Evaluation (DQA/DUE) Guidance were utilized to ensure that the analytical data used is of known and sufficient level of quality for the intended purpose.

A laboratory prepared trip blank TB-1 accompanied the samples obtained during field sampling activities on August 25, 2016. The trip blank consisted of two, 40 ml vials containing laboratory grade de-ionized water and were placed in the sample cooler with the daily samples. The trip

blank sample TB-1 was analyzed for volatile organic compounds by EPA Method 8260.

All samples collected in the field were stored in a manner that preserved the integrity of the sample chemistry. Samples intended for organic analyses were stored in an ice-filled cooler until delivery to the laboratory. Chain-of-Custody (COC) forms were filled out and accompanied all samples collected as a legal record of possession of the sample. The COC was initiated in the field and accompanied the containers during sample collection, transportation to the lab, analysis, and final disposal of the sample.

All sampling equipment was either dedicated to a specific sample or was decontaminated prior to and between each use. Sampling equipment was not placed near solvents, gasoline, or other materials that may impact the integrity of the samples.

5.0 DISCUSSION OF SAMPLE RESULTS

5.1 Regulatory Criteria

The CTDEEP has amended the Remediation Standard Regulations (Regulations of Connecticut State Agencies, Section 22a-133k-1 to 3 and 22a-133q-1) effective June 27, 2013. The Remediation Standard Regulations (RSRs) apply to any action which is required pursuant to Chapter 445, 446k or section 22a-208a(c)(2) of the General Statutes, including but not limited to any such action required to be taken or verified by a licensed environmental professional. The Regulations also outline the processes for establishing alternative site-specific numerical standards for certain sites and criterion for additional polluting substances not specified in the RSRs, upon approval by the CTDEEP. When a contaminant at a site is not one of the 88 substances listed in the RSRs or a different numeric criteria other than that listed in the RSRs is believed to be appropriate for a site, a request for approval of an “Additional Polluting Substance (APS) criteria or Alternative Criteria (AC) must be submitted to the CTDEEP on Form “DEEP-REM-FASTAPS”.

The RSRs and APS criteria applicable to the soil and groundwater sampled during this investigation are summarized below. The application of these RSRs to the results of the laboratory analyses from this investigation are discussed in subsections 5.2 through 5.4 of this section.

Soils Criteria: The RSRs are organized into two sets of criteria: the Direct Exposure Criteria (DEC) and the Pollutant Mobility Criteria (PMC). The DEC and PMC are briefly explained in the following sub-sections, in relation to how they would be applicable to the types of analyses conducted on the soil samples collected for this investigation. Please refer to the RSRs for a complete explanation of the Regulations.

Direct Exposure Criteria

The purpose of the Direct Exposure Criteria (DEC) is to protect human health from risks associated with the direct contact with or ingestion of various common soil contaminants. The DEC are applicable to soil within approximately fifteen (15) feet of the ground surface. Concentrations of

contaminants are evaluated based upon mass-based analyses and different criteria are established for residential and industrial/commercial properties. The use of the less stringent commercial/industrial standards requires the placement of an environmental land use restriction on the property.

The DEC for substances other than PCBs do not apply to “inaccessible” soil at a release area provided that such soil is less than 15-feet below the ground surface and an Environmental Land Use Restriction (ELUR) is in effect with respect to the subject parcel or to the portion of such parcel containing such release area.

The DEC do not apply to metals, petroleum hydrocarbons or semi-volatile substances in soil provided such pollution is the result of: an incidental release due to the normal operation of motor vehicles, not including refueling, repair or maintenance of a motor vehicle; or normal paving and maintenance of a consolidated bituminous concrete surface provided such bituminous concrete surface has been maintained for its intended purpose.

Pollutant Mobility Criteria

The purpose of the Pollutant Mobility Criteria (PMC) is to evaluate the potential for contaminants to leach from the soil in concentrations that may degrade groundwater quality.

The PMC do not apply to “environmentally isolated” soil at a release area provided that an Environmental Land Use Restriction (ELUR) is in effect with respect to the subject parcel or to the portion of such parcel containing such release area. The PMC do not apply to polluted fill on a parcel if the fill meets the requirements of section 22a-133k-2(c)(4)(B)(i) through (vi). The PMC do not apply to substances, other than volatile substances, in soil at a release area provided that the release area meets the requirements of section 22a-133k-2(c)(4)(C)(i) through (v).

The PMC do not apply to metals, petroleum hydrocarbons or semi-volatile substances in soil provided such pollution is the result of: an incidental release due to the normal operation of motor vehicles, not including refueling, repair or maintenance of a motor vehicle; or normal paving and maintenance of a consolidated bituminous concrete surface provided such bituminous concrete

surface has been maintained for its intended purpose.

Different numerical criteria are established for GA and GAA groundwater areas, versus GB groundwater areas. Since the project borings were advanced in a GB groundwater area, the less stringent criteria applies to this Site.

Groundwater Criteria: Contaminants in the groundwater are compared either to background quality or the Groundwater Protection Criteria (GWPC), the Volatilization Criteria (VC), as well as the Surface Water Protection Criteria (SWPC).

Groundwater Protection Criteria

The purpose of the Groundwater Protection Criteria (GPC) is to protect the groundwater quality in areas that have the potential to use groundwater as a drinking water resource (GA & GAA groundwater classification areas). Since the Site is located in a GB groundwater area, the GPC do not apply to this Site.

Volatilization Criteria

The purpose of the Volatilization Criteria (VC) standard is to ensure that volatile organic compounds (VOCs) in groundwater do not pose an unacceptable risk to human health due to the inhalation of VOCs that may enter into a structure on the property. The VC only apply when impacted groundwater is located within fifteen (15) feet of the ground surface or any structure. Different criteria exist for residential and commercial/industrial properties. The use of the less stringent commercial/industrial standards requires the placement of an ELUR or AUL on the property. Since groundwater was located within fifteen (15) feet of the ground surface, the Volatilization Criteria do apply to this Site

Surface Water Protection Criteria

The purpose of the Surface Water Protection Criteria (SWPC) standards are to ensure that groundwater discharging to a surface water body will not adversely affect surface water quality. The SWPC do apply to this Site.

5.2 Results of Soil Sample Analyses

PAOC-1 Loading/Unloading Areas

The results of the laboratory analyses of soil samples collected from borings GP-1, GP-2, GP-3 and GP-4 advanced within PAOC-1 Loading/Unloading Areas did not indicate the presence of volatile organic compounds (VOCs) at concentrations above analytical detection limits (ND) with the exception of acetone. Low concentrations of acetone were detected in soil samples GP-1 (0.0196 mg/kg), GP-2 (0.0404 mg/kg) and GP-3 (0.0335 mg/kg) below RSR criteria. Acetone (0.0437 mg/kg) was also detected at a low concentration in the concrete sample collected from interior boring GP-4. In addition, a low concentration of carbon disulfide (0.01 mg/kg) was detected in the concrete sample from boring GP-4. However, carbon disulfide was not detected above analytical detection limits (ND) in the sub-slab soil sample collected from boring GP-4. No other VOCs were detected above analytical detection limits in the samples collected from PAOC-1.

ETPH was not detected above analytical detection limits (ND) in soils samples collected from exterior borings GP-1, GP-2 and GP-3. ETPH was detected in the sub-slab soil sample collected from interior boring GP-4 at a concentration of 628 mg/kg which exceeds the Residential Direct Exposure Criteria (RDEC) of 500 mg/kg but below the Industrial/Commercial Direct Exposure Criteria (I/C-DEC) and GB Pollutant Mobility Criteria (PMC) of 2,500 mg/kg. ETPH was also detected in the concrete sample collected from interior boring GP-4 at a concentration of 361 mg/kg which is below RSR criteria.

Several SVOCs were detected in the soil samples collected from borings GP-1 and GP-4 at concentrations above analytical detection limits but below the RSR criteria. SVOCs were not detected above analytical detection limits (ND) in the soil samples collected from borings GP-2 and GP-3 and concrete sample collected from boring GP-4.

Various total and leachable metals were detected in the samples collected from PAOC-1 at concentrations above analytical detection limits but below RSR criteria.

PAOC-2 Wallace Street Loading/Unloading Area

The results of the laboratory analyses of soil samples collected from borings GP-6, GP-7, and GP-8 advanced within PAOC-2 Wallace Street Loading/Unloading Area indicated the presence of several VOCs at concentrations above analytical detection limits in borings GP-6 and GP-7. Low concentrations of acetone were detected in soil samples GP-6 (0.0162 mg/kg) and GP-7 (0.0155 mg/kg) below RSR criteria. Acetone was not detected above analytical detection limits (ND) in the soil sample collected from boring GP-8. Low concentrations of carbon disulfide (0.0056 mg/kg), 1,1,1-trichloroethane (0.0022 mg/kg) and trichloroethene (0.0168 mg/kg) were also detected in soil sample GP-6 but at concentrations below RSR criteria. No other VOCs were detected above analytical detection limits in the samples collected from PAOC-2.

ETPH was detected in soil sample GP-7 at a concentration of 85 mg/kg which is below RSR criteria. ETPH was not detected above analytical detection limits (ND) in the soil samples collected from borings GP-6 and GP-8.

SVOCs were not detected at concentrations above analytical detection limits (ND) in any of the soil samples collected from PAOC-2.

Various total and leachable metals were detected in the samples collected from PAOC-2 at concentrations above analytical detection limits but below RSR criteria.

PAOC-3 Floor Drains

The results of the laboratory analyses of soil samples collected from interior borings GP-9, GP-15, and exterior boring GP-20 advanced within PAOC-3 Floor Drains indicated the presence of several VOCs at concentrations above analytical detection limits. Low concentrations of acetone were detected in soil samples GP-9 (0.045 mg/kg), GP-15 (0.0521 mg/kg), and GP-20 (0.0297 mg/kg) below RSR criteria. Low concentrations of chloroform (0.0116 mg/kg) and dichlorodifluoromethane (0.003 mg/kg) were also detected in soil sample GP-9 but at concentrations below RSR criteria. Chloroform was also detected in soil sample GP-15 at a concentration of 0.0107 mg/kg which is below RSR criteria. Acetone was detected in the concrete samples collected from borings GP-9 (0.0222 mg/kg) and GP-15 (0.0759 mg/kg). In addition, benzene was detected in concrete sample GP-9C at a concentration of 0.00071 mg/kg. No other VOCs were detected above analytical detection limits in the samples collected from PAOC-3.

ETPH was detected in soil samples GP-15 (67.0 mg/kg) and GP-20 (37.3 mg/kg) at concentrations above analytical detection limits but below RSR criteria. ETPH was not detected above analytical detection limits (ND) in the soil sample collected from boring GP-9. In addition, ETPH was detected in concrete samples GP-9C and GP-15C at concentrations of 130 mg/kg and 135 mg/kg, respectively.

SVOCs were not detected at concentrations above analytical detection limits (ND) in the soil sample collected from exterior boring GP-20. Various SVOCs were detected sub-slab soil samples collected from interior borings GP-9 and GP-15 at concentrations above analytical detection limits but below RSR criteria. In addition, bis(2-ethylhexyl)phthalate was detected in concrete sample GP-15C at a concentration of 0.347 mg/kg.

Various total and leachable metals were detected in the samples collected from PAOC-3 at concentrations above analytical detection limits but below RSR criteria.

PAOC-4 Former Solvent Tank

The results of the laboratory analyses of the soil sample collected from boring GP-10 advanced within PAOC-4 Former Solvent indicated the presence of trichloroethene at a concentration of 0.0023 mg/kg which is below RSR criteria. No other VOCs were detected above analytical detection limits in the soil sample collected from PAOC-4.

ETPH was detected in soil sample GP-10 at a concentration of 56.9 mg/kg which is below RSR criteria.

SVOCs were not detected at concentrations above analytical detection limits (ND) in soil sample GP-10 collected from PAOC-4.

Various total and leachable metals were detected in the samples collected from PAOC-4 at concentrations above analytical detection limits but below RSR criteria.

PAOC-5 Solvent Floor Drain Area

The results of the laboratory analyses of the sub-slab soil sample collected from boring GP-12 advanced within PAOC-5 Solvent Floor Drain Area indicated the presence of trichloroethene (0.0027 mg/kg) and acetone (0.0662 mg/kg) at concentrations above analytical detection limits but below RSR criteria. In addition, acetone was detected in concrete sample GP-12C at a concentration of 0.066 mg/kg. No other VOCs were detected above analytical detection limits in the sub-slab soil sample and concrete sample collected from PAOC-5.

ETPH was detected in concrete sample GP-12C at a concentration of 85.6 mg/kg. However, ETPH was not detected in the sub-slab soil sample GP-12 at concentration above analytical detection limits (ND).

Several SVOCs were detected at concentrations above analytical detection limits but below RSR criteria in sub-slab soil sample GP-12 collected from PAOC-5. SVOCs were not detected above analytical detection limits (ND) in concrete sample GP-12C.

Various total and leachable metals were detected in the samples collected from PAOC-5 at concentrations above analytical detection limits but below RSR criteria.

PAOC-6 Dumpster

The results of the laboratory analyses of the soil sample collected from boring GP-13 advanced within PAOC-6 Dumpster did not indicate the presence of VOCs at concentrations above analytical detection limits (ND) with the exception of acetone, which was detected at a concentration of 0.131 mg/kg below RSR criteria. No other VOCs were detected above analytical detection limits in the soil sample collected from PAOC-6.

ETPH was detected in soil sample GP-13 at a concentration of 201 mg/kg which is below RSR criteria.

Several SVOCs were detected at concentrations above analytical detection limits but below RSR criteria in soil sample GP-13 collected from PAOC-6.

Various total and leachable metals were detected in the samples collected from PAOC-6 at

concentrations above analytical detection limits but below RSR criteria.

PAOC-7 Waste Oil Area Floor Drains

The results of the laboratory analyses of the sub-slab soil sample collected from boring GP-14 advanced within PAOC-7 Waste Oil Area Floor Drains indicated the presence of acetone at a concentration of 0.0363 mg/kg which is below RSR criteria. In addition, acetone (0.053 mg/kg), 2-hexanone (0.0132 mg/kg) and total xylenes (0.0038 mg/kg) were detected in concrete sample GP-14C. No other VOCs were detected above analytical detection limits in the sub-slab soil sample and concrete sample collected from PAOC-7.

ETPH was detected in both the concrete (130 mg/kg) and sub-slab soil (24.2 mg/kg) samples collected from boring GP-14 at concentrations above analytical detection limits. However, the concentration of ETPH detected in the sub-slab soil sample GP-12 (24.2 mg/kg) was below RSR criteria.

Several SVOCs were detected at concentrations above analytical detection limits but below RSR criteria in sub-slab soil sample GP-14 collected from PAOC-7. SVOCs were not detected above analytical detection limits (ND) in concrete sample GP-14C.

Polychlorinated biphenyls (PCBs) were detected in concrete sample GP-14C at a concentration of 0.0757 mg/kg. However, PCBs were not detected above analytical detection limits (ND) in sub-slab soil sample GP-14.

Various total and leachable metals were detected in the samples collected from PAOC-7 at concentrations above analytical detection limits but below RSR criteria.

PAOC-8 Former Gasoline USTs

The results of the laboratory analyses of soil samples collected from borings GP-5, GP-16, and GP-17 advanced within PAOC-8 Former Gasoline USTs did not indicate the presence of VOCs at concentrations above analytical detection limits (ND) with the exception of acetone and naphthalene. Acetone was detected in soil samples GP-16 (0.0403 mg/kg) and GP-17 (0.0194 mg/kg) and naphthalene was detected in soil sample GP-5 (4.85 mg/kg) at concentrations below RSR criteria. No other VOCs were detected above analytical detection limits in the soil samples

collected from PAOC-8.

ETPH was detected in soil samples GP-5 and GP-16 at a concentrations of 70.7 mg/kg and 55.4 mg/kg, respectively, which are below RSR criteria. ETPH was not detected above analytical detection limits (ND) in the soil sample collected from boring GP-17.

SVOCs were not detected at concentrations above analytical detection limits (ND) soil sample GP-17. Several SVOCs were detected in soil samples GP-5 and GP-16 at concentrations above analytical detection limits but below RSR criteria.

Various total and leachable metals were detected in the soil samples collected from PAOC-8 at concentrations above analytical detection limits but below RSR criteria.

PAOC-9 Former Waste Oil UST

The results of the laboratory analyses of soil samples collected from borings GP-18 and GP-19 advanced within PAOC-9 Former Waste Oil USTs did not indicate the presence of VOCs at concentrations above analytical detection limits (ND) with the exception of acetone and benzene. Acetone was detected in soil samples GP-18 (0.0259 mg/kg) and GP-19 (0.033 mg/kg) and benzene was detected in soil sample GP-19 (0.0031 mg/kg) at concentrations below RSR criteria. No other VOCs were detected above analytical detection limits in the soil samples collected from PAOC-9.

ETPH was not detected above analytical detection limits (ND) in the soil samples collected from borings GP-18 and GP-19.

SVOCs were not detected at concentrations above analytical detection limits (ND) soil sample GP-19. Two (2) SVOCs were detected in soil samples GP-18 at concentrations above analytical detection limits but below RSR criteria.

Various total and leachable metals were detected in the soil samples collected from PAOC-8 at concentrations above analytical detection limits but below RSR criteria.

5.3 Results of Groundwater Samples Analyses

The results of the laboratory analyses indicated the presence of ETPH at a concentration 0.162 mg/L in groundwater sample GW-1. ETPH was not detected above analytical detection limits (ND) in groundwater sample GW-2. The DEEP has not established a Surface Water Protection Criteria (SWPC) or Volatilization Criteria (VC) for ETPH in the RSRs. However the DEEP has recently established Criteria for Additional Polluting Substances (APS) and Certain Alternative Criteria for substances. These criteria require approval from the DEEP for use on Sites within a program under Connecticut General Statutes Section 22a-134a(a)-(e), Property Transfer Program (PTP) or CGS Section 22a-133x and Section 22a-133y, Voluntary Remediation Programs (VRPs). The DEEP has established an APS SWPC of 0.250 mg/L for ETPH for use, which requires submittal of Form "DEEP-REM-FASTPS" for approval. Use of this criteria on the Site would require submittal of Form "DEEP-REM-FASTAPS" to DEEP for approval. The concentration of ETPH detected in groundwater grab sample GW-1 (0.162 mg/L) is below this APS SWPC of 0.250 mg/L.

Toluene was detected in groundwater samples GW-1 and GW-2 at concentrations of 2.4 ug/L and 2.6 ug/L, respectively, which are below RSR criteria. Vinyl chloride was detected in groundwater sample GW-1 at a concentration of 2.9 ug/L which is below the SWPC of 15,750 ug/L. However the concentration of vinyl chloride (2.9 ug/L) exceeds the residential and industrial/commercial volatilization criteria of 2.0 ug/L established by DEEP. Total xylenes were detected in groundwater samples GW-1 and GW-2 at concentrations of 4.1 ug/L and 4.7 ug/L, respectively, which are below RSR criteria. No other VOCs were detected in the groundwater samples at concentrations above analytical detection limits (ND).

SVOCs were not detected in the groundwater sample GW-2 at a concentrations above analytical detection limits (ND). Bis(2-ethylhexyl)phthalate was detected in groundwater sample GW-1 at a concentration of 7.6 ug/L which is below the SWPC of 59 ug/L. No other SVOCs were detected in groundwater sample GW-1 at concentrations above analytical detection limits (ND).

Various total and dissolved metals were detected in the groundwater samples collected from the Site at concentrations above analytical detection limits but below RSR criteria.

5.4 Results of QA/QC Sample Analyses

The results of the QA/QC sample analyses did not indicate the presence of VOCs in the trip blank samples TB- 1 at concentrations above analytical detection limits (ND).

5.5 Data Quality Assessment and Data Usability Evaluation (DQA/DUE)

Nineteen (19) soil samples, five (5) concrete samples and two (2) groundwater samples were collected from the Site and submitted to a state-certified analytical laboratory for analyses using the CTDEEP Reasonable Confidence Protocols (RCPs) established for ETPH, VOCs, SVOCs, PCBs, and metals. The samples were collected to determine if “releases” to soil and groundwater have occurred from chemicals, hazardous substances or petroleum products.

A data quality assessment and a data usability evaluation were performed for the data generated in accordance with CTDEEP guidance and noted the following quality control non-conformances. Copies of the DQA and DUE worksheets are included in Appendix C.

Initial Calibration Verification and Continuing Calibration was outside of acceptance criteria for acetone, naphthalene and bis(2-ethylhexyl)phthalate and sample results may be biased high. The presence of detectable concentrations in the samples may be false positives and these substances may not be present in the soil and groundwater at the Site. Non-conformances related to laboratory LCS/LCSD and RPD recoveries were outside control limits. Associated samples were non-detect for these compounds and there was no significant bearing on the accuracy and usability of the data for its intended use.

Based on the above findings from the DQA and DUE, the analytical data is of adequate quality and of sufficient accuracy, precision and sensitivity to confirm that “releases” of substances have occurred to soil and groundwater at the Site.

6.0 SUMMARY AND CONCLUSIONS

PAOC-1 Loading/Unloading Areas

The results of the investigation indicated the presence of ETPH in sub-slab soils at concentrations exceeding RSR criteria. In addition, low concentrations of SVOCs and metals were also detected in soils within PAOC-1. Acetone was also detected in the soil and concrete samples, however, following an evaluation of the laboratory data, the reported detections may be biased high and are likely false positives. The presence of ETPH, SVOCs and metals in the soil is not indicative of a “release” of chemicals, hazardous substances or petroleum products, but may be due to incidental sources per RCSA 22a-133k-2(b)(4) and 22a-133K-2(c)(5).

PAOC-2 Wallace Street Loading/Unloading Area

The results of the investigation indicated the presence of VOCs (carbon disulfide, 1,1,1-trichloroethane and trichloroethene) at detectable concentrations in soils within PAOC-2. Acetone was also detected in the soil samples, however, following an evaluation of the laboratory data, the reported detections may be biased high and are likely false positives. One (1) location within PAOC-2 contained ETPH in soil at a detectable concentration, however, its presence is not indicative of a “release” of chemicals, hazardous substances or petroleum products, but may be due to incidental sources per RCSA 22a-133k-2(b)(4) and 22a-133K-2(c)(5). However, the presence of the VOCs, carbon disulfide, 1,1,1-trichloroethane and trichloroethene, at detectable concentrations in the soil within PAOC-2 indicate that a “release” has occurred.

PAOC-3 Floor Drains

The results of the investigation indicated the presence of VOCs (chloroform and dichlorodifluoromethane) at detectable concentrations in soils within PAOC-3. Acetone was also detected in the soil and concrete samples, however, following an evaluation of the laboratory data, the reported detections may be biased high and are likely false positives. ETPH was detected at low concentrations below RSR criteria in soil and concrete samples collected from PAOC-3. Various SVOCs were also detected sub-slab soil samples collected from interior borings within PAOC-3 at concentrations above analytical detection limits but below RSR criteria. In addition, bis(2-ethylhexyl)phthalate was detected in one (1) concrete sample, but its presence in the sample

is biased high and likely a false positive. The presence of ETPH and SVOCs in the soil is not indicative of a “release” of chemicals, hazardous substances or petroleum products, but may be due to incidental sources per RCSA 22a-133k-2(b)(4) and 22a-133K-2(c)(5). However, the presence of the VOCs, chloroform and dichlorodifluoromethane, at detectable concentrations in the soil within PAOC-3 indicate that a “release” has occurred.

PAOC-4 Former Solvent Tank

The results of the investigation indicated the presence trichloroethene at a detectable concentration in soils within PAOC-4. ETPH and metals were also detected in the soil sample collected from PAOC-4, but at a concentrations below RSR criteria. The presence of ETPH and metals in the soil is not indicative of a “release” of chemicals, hazardous substances or petroleum products, but may be due to incidental sources per RCSA 22a-133k-2(b)(4) and 22a-133K-2(c)(5). However, the presence of the trichloroethene at detectable concentrations in the soil within PAOC-4 indicate that a “release” has occurred.

PAOC-5 Solvent Floor Drain Area

The results of the investigation indicated the presence trichloroethene at a detectable concentration in sub-slab soil within PAOC-5. Acetone was also detected in the soil and concrete samples, however, following an evaluation of the laboratory data, the reported detections may be biased high and are likely false positives. SVOCs and metals were also detected in the sub-slab soil sample collected from PAOC-5, but at a concentrations below RSR criteria. The presence of SVOCs and metals in the sub-slab soil is not indicative of a “release” of chemicals, hazardous substances or petroleum products, but may be due to incidental sources per RCSA 22a-133k-2(b)(4) and 22a-133K-2(c)(5). However, the presence of the trichloroethene at detectable concentrations in the soil within PAOC-5 indicate that a “release” has occurred.

PAOC-6 Dumpster

The results of the investigation indicated the presence acetone at a detectable concentration in soil within PAOC-6. However, following an evaluation of the laboratory data, the reported detection may be biased high and is likely a false positive. ETPH, SVOCs and metals were also detected in

the soil sample collected from PAOC-6, but at a concentrations below RSR criteria. The presence of ETPH, SVOCs and metals in the soil is not indicative of a “release” of chemicals, hazardous substances or petroleum products, but may be due to incidental sources per RCSA 22a-133k-2(b)(4) and 22a-133K-2(c)(5).

PAOC-7 Waste Oil Area Floor Drains

The results of the investigation indicated the presence of low concentrations of VOCs and PCBs in the concrete within PAOC-7. However, these substances were not detected in sub-slab soils, with the exception of acetone. Acetone was detected in both the soil and concrete samples, however, following an evaluation of the laboratory data, the reported detections may be biased high and are likely false positives. ETPH, SVOCs and metals were also detected in the sub-slab soil and concrete samples collected from PAOC-7, but at a concentrations below RSR criteria. The presence of ETPH, SVOCs and metals in the sub-slab soil is not indicative of a “release” of chemicals, hazardous substances or petroleum products, but may be due to incidental sources per RCSA 22a-133k-2(b)(4) and 22a-133K-2(c)(5).

PAOC-8 Former Gasoline USTs

The results of the investigation did not indicate the presence of VOCs within PAOC-8 with the exception of acetone and naphthalene. However, these substances may be biased high and are likely false positives following the evaluation of the laboratory data. ETPH, SVOCs and metals were also present at detectable concentrations within PAOC-8 below RSR criteria. However, the presence of these substances is not indicative of a “release” of chemicals, hazardous substances or petroleum products, but may be due to incidental sources per RCSA 22a-133k-2(b)(4) and 22a-133K-2(c)(5).

PAOC-9 Former Waste Oil UST

The results of the investigation did not indicate the presence of VOCs within PAOC-9 with the exception of acetone and benzene. However, acetone may be biased high and is likely a false positive following the evaluation of the laboratory data. SVOCs and metals were also present at detectable concentrations within PAOC-9 below RSR criteria. However, the presence of these substances is not indicative of a “release” of chemicals, hazardous substances or petroleum

products, but may be due to incidental sources per RCSA 22a-133k-2(b)(4) and 22a-133K-2(c)(5). However, the presence of the benzene at detectable concentrations in the soil within PAOC-9 indicate a “release” has occurred.

PAOC-10 Site Groundwater

The results of the investigation indicated the presence of ETPH and VOCs (toluene, xylenes and vinyl chloride) within groundwater at the Site at concentrations below RSR criteria with the exception of vinyl chloride. Vinyl chloride was detected in the groundwater at a concentration exceeding the VC. Vinyl chloride was not a contaminant of concern and its presence in the groundwater is likely due to an upgradient off-site source and not a “release” associated with historic Site operations. However, the presence of the toluene and xylenes in the groundwater at the Site indicate of a “release” has occurred.

7.0 REVISED CONCEPTUAL SITE MODEL

The following Revised Conceptual Site Model (CSM) has been developed for the 444 Chapel Street property based on the results of this Phase II ESA. The investigation indicated the presence of VOCs at detectable concentrations in soil and groundwater at the Site. ETPH was also detected in the groundwater at the Site. These detectable concentrations indicate a “release” of substances has occurred at the Site per RCSA 22-133k-1(a).

TABLE 2 – REVISED CONCEPTUAL SITE MODEL

Potential Area of Concern (PAOC)	Description	Contaminants of Concern (COC)
1	Loading/Unloading Areas	
2	Wallace Street Loading/Unloading Area	VOCs
3	Floor Drains	VOCs
4	Former Solvent Tank	VOCs
5	Solvent Area Floor Drain	VOCs
6	Dumpster	
7	Waste Oil Area Floor Drains	
8	Former Gasoline USTs	
9	Former Waste Oil UST	VOCs
10	Site Groundwater	VOCs, ETPH

8.0 RECOMMENDATIONS

The results of the Phase II conducted at 444 Chapel Street in New Haven, Connecticut indicate that “releases” to soil and groundwater have occurred from chemicals, hazardous substances or petroleum products. The Phase I ESA indicated that 444 Chapel Street appears to meet the definition of an “Establishment” and would be subject to the provisions of the Property Transfer Program (PTP) and required form filings. Therefore, prior to transfer of the property and filing of the required forms, additional investigation of the property may be warranted to determine the source of VOCs detected in soils and groundwater at the Site. In addition, an upgradient monitor well should be installed to determine if impacts to groundwater at the Site are from an off-site source. Also, substances of concern were detected in the concrete slab within the garage which may require controlled handling and disposal of the concrete should it be removed.

9.0 LIMITATIONS

All work product and reports provided by CDR Group Inc. in connection with the performance of this Phase II ESA Report are subject to the following limitations:

1. The observations described in this report were made under the conditions stated therein. The conclusions presented in the report were based solely upon the services described therein, and not on scientific tasks or procedures beyond the scope of described services provided to CTDOT.
2. In preparing this report, CDR Group has relied on certain information provided by State and local officials and information and representations made by other parties referenced therein, and on information contained in the files of State and/or local agencies made available to CDR Group at the time of this investigation. To the extent that such files are missing, incomplete or not provided to CDR Group, CDR Group is not responsible. Although there may have been some degree of overlap in the information provided by these various sources, CDR Group did not attempt to independently verify the accuracy or completeness of all information reviewed or received during the course of this investigation.
3. The conclusions and recommendations contained in this report are based in part upon the data from subsurface explorations. The nature and extent of variations between these explorations may not become evident until further explorations are completed. If variations or other latent conditions become evident, it will be necessary to re-evaluate the conclusions and recommendations of this report.
4. The water level readings made for this investigation were made at the times and conditions stated on the boring logs. However, it must be noted that fluctuations in the level of the groundwater may occur due to variations in rainfall, passage of time and other factors. Should additional data become available in the future, these data should be reviewed by CDR Group, and the conclusions and recommendations presented herein modified accordingly.

5. Where quantitative laboratory analyses have been conducted by an outside certified laboratory, CDR Group has relied upon the data provided, and has evaluated the data in accordance with CTDEEP DQA/DUE Guidance, but has not conducted an independent evaluation of the reliability of these tests.
6. If the conclusions and recommendations contained in this report are based, in part, upon various types of chemical data, then the conclusions and recommendations are contingent upon the validity of such data. These data have been reviewed and interpretations made in the report. It should be noted that variations in the types and concentrations of contaminants and variations in their flow paths may occur due to seasonal water table fluctuations, past disposal practices, the passage of time, and other factors. Should additional chemical data become available in the future, these data should be reviewed by CDR Group and the conclusions and recommendations presented herein modified accordingly.
7. Chemical analyses were performed for specific parameters during the course of this investigation, as described in the text. However, it should be noted that testing for all known chemical constituents was not performed. The conclusions and recommendations contained in this report are based only upon the chemical constituents for which testing was accomplished.

The following qualifications apply to the undersigned's opinion:

The activities described and opinions included herein are based on information gathered during this exploratory site characterization, which was limited in scope in adherence to the terms of our agreement. The professional opinion provided herein is based on the information described in this report.


The information contained herein was prepared for the use of CTDOT solely in conjunction with the task descriptions for this assignment. The conclusions and recommendations set forth in this


report are based on site conditions at the time of the investigation. Future studies and findings could change the contents of this report. The professional opinions presented in this report have been developed by using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental engineering consultants practicing in this or similar localities. No other warranty, expressed or implied, is made as to the professional opinions included in this report.

Prepared by:

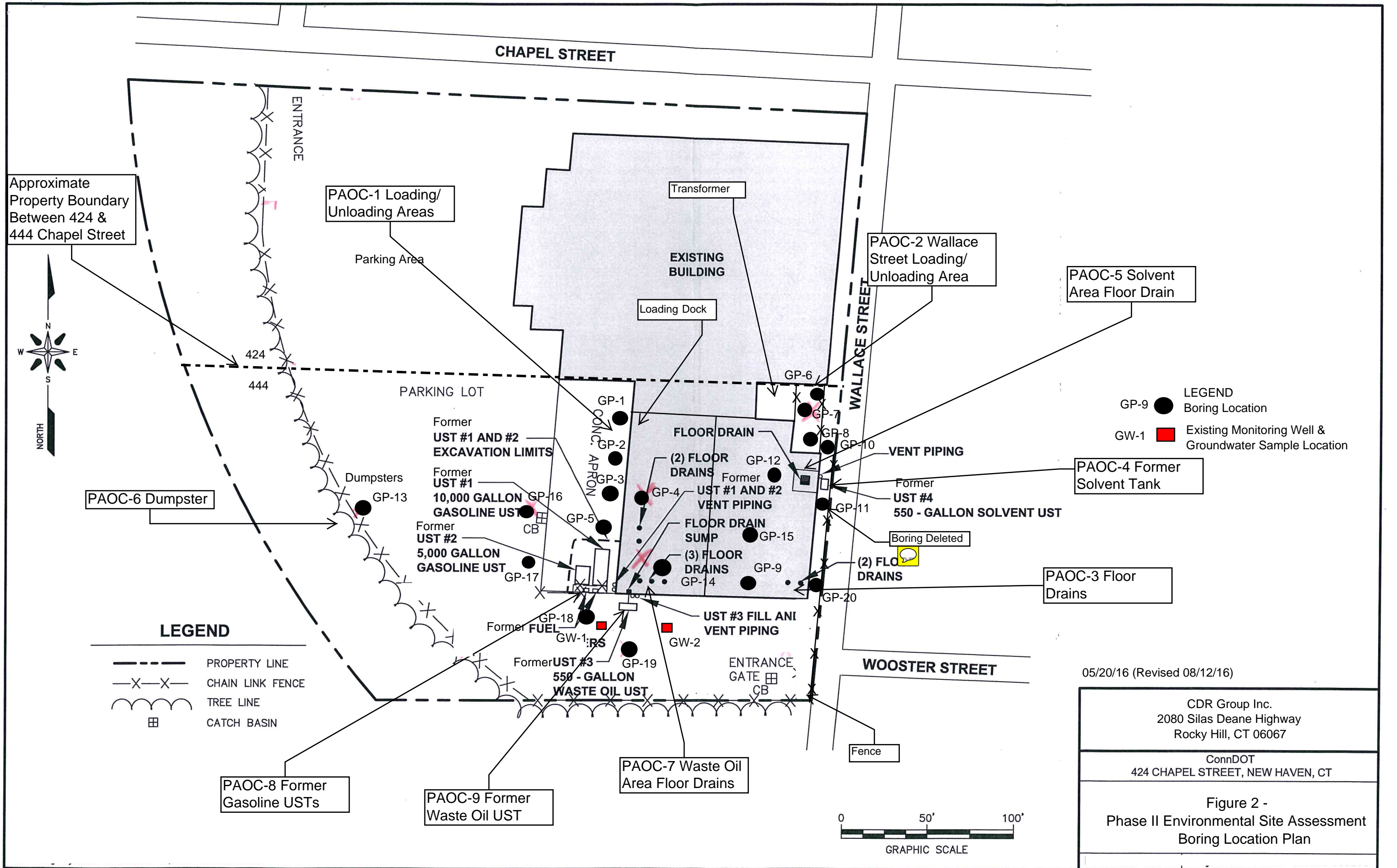
Reviewed

by:


Jane Witherell, PE, LEP, CHMM
Principal Engineer


David R. Stock, P.E.
Vice President

FIGURES



Approximate Property Boundary Between 424 & 444 Chapel Street



LEGEND

- PROPERTY LINE
- X-X- CHAIN LINK FENCE
- ~~~ TREE LINE
- ▣ CATCH BASIN

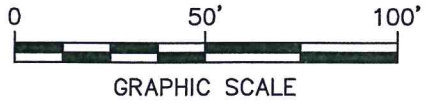
- LEGEND**
- GP-9 Boring Location
 - GW-1 Existing Monitoring Well & Groundwater Sample Location

05/20/16 (Revised 08/12/16)

CDR Group Inc.
2080 Silas Deane Highway
Rocky Hill, CT 06067

ConnDOT
424 CHAPEL STREET, NEW HAVEN, CT

Figure 2 -
Phase II Environmental Site Assessment
Boring Location Plan



TABLES

**TABLE 1(a) - Results of Soil and Concrete Sample Analyses
Phase II Environmental Site Assessment – 424-444 Chapel Street
New Haven, Connecticut**

Sample I.D.:	GP-1	GP-2	GP-3	CTDEEP PMC GB Groundwater Area	CTDEEP DEC Residential/ Commercial & Industrial
Matrix:	Soil	Soil	Soil		
PAOC #:	1	1	1		
Sample Depth:	1'-4'	1'-4'	1'-4'		
Sample Date:	8/24/16	8/24/16	8/24/16		
CT ETPH - (mg/kg)	ND	ND	ND	2,500	500/2,500
VOCs - Method 8260 (mg/kg) Acetone	0.0196	0.0404	0.0335	140	500/1,000
SVOCs - Method 8270 (mg/kg) Benz(a)anthracene	0.123	ND	ND	1	1/1
Benzo(b)fluoranthene	0.120	ND	ND	1	1/7.8
Chrysene	0.134	ND	ND	NE	NE
Fluoranthene	0.281	ND	ND	56	1,000/2,500
Pyrene	0.183	ND	ND	40	1,000/2,500
Total RCRA 8 Metals - (mg/kg) Arsenic	4.2	2.3	2.0	Not Applicable	10/10
Barium	69.7	51.0	26.0		4,700/140,000
Cadmium	<0.33	<0.36	<0.35		34/1,000
Chromium	21.3	12.0	4.6		3,900/51,000
Lead	86.1	20.1	11.9		400/1,000
Mercury	0.22	0.037	0.034		20/610
Selenium	<0.83	<0.90	<0.87		340/10,000
Silver	1.6	<0.45	<0.43		340/10,000
SPLP RCRA 8 Metals - (mg/L) Arsenic	<0.010	<0.010	<0.010	0.5 mg/L	Not Applicable
Barium	<0.50	<0.50	<0.50	10.0 mg/L	
Cadmium	<0.0040	<0.0040	<0.0040	0.05 mg/L	
Chromium	<0.010	<0.010	<0.010	0.5 mg/L	
Lead	0.012	<0.010	0.017	0.15 mg/L	
Mercury	<0.00020	<0.00020	<0.00020	0.02 mg/L	
Selenium	<0.025	<0.025	<0.025	0.5 mg/L	
Silver	<0.0050	<0.0050	<0.0050	0.36 mg/L	

ND – Not Detected (see laboratory reports for compound specific detection limits)

NE – None Established by DEEP

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

**TABLE 1(b) - Results of Soil and Concrete Sample Analyses
Phase II Environmental Site Assessment – 424-444 Chapel Street
New Haven, Connecticut**

Sample I.D.:	GP-4	GP-4C	GP-5	CTDEEP PMC GB Groundwater Area	CTDEEP DEC Residential/ Commercial & Industrial
Matrix:	Soil	Concrete	Soil		
PAOC #:	1	1	8		
Sample Depth:	1'-4'	0'-1'	1'-8'		
Sample Date:	8/24/16	8/24/16	8/24/16		
CT ETPH - (mg/kg)	628	361	70.7	2,500	500/2,500
VOCs - Method 8260 (mg/kg)					
Acetone	ND	0.0437	ND	140	500/1,000
Carbon disulfide	ND	0.01	ND	8	500/1,000
Naphthalene	ND	ND	4.85	56	1,000/2,500
SVOCs - Method 8270 (mg/kg)					
Benz(a)anthracene	0.396	ND	0.185	1	1/7.8
Benzo(b)fluoranthene	0.318	ND	0.166	1	1/7.8
Benzo(g,h,i)perylene	0.240	ND	0.139	NE	NE
Benzo(k)fluoranthene	0.288	ND	0.140	1	8.4/78
Chrysene	0.469	ND	0.199	NE	NE
Fluoranthene	1.40	ND	0.388	56	1,000/2,500
Naphthalene	ND	ND	0.129	5.6	1,000/2,500
Phenanthrene	1.28	ND	0.162	40	1,000/2,500
Pyrene	0.955	ND	0.302	40	1,000/2,500
Total RCRA 8 Metals - (mg/kg)				Not Applicable	
Arsenic	2.4	2.4	1.2		10/10
Barium	180	47.7	65.5		4,700/140,000
Cadmium	<0.35	<0.34	<0.35		34/1,000
Chromium	9.0	18.4	7.8		3,900/51,000
Lead	41.7	3.6	15.6		400/1,000
Mercury	0.034	<0.034	<0.034		20/610
Selenium	<0.88	<0.84	<0.87		340/10,000
Silver	<0.44	<0.42	<0.43		340/10,000
SPLP RCRA 8 Metals - (mg/L)					
Arsenic	<0.010	<0.010	<0.010	0.5	Not Applicable
Barium	<0.50	<0.50	<0.50	10.0	
Cadmium	<0.0040	<0.0040	<0.0040	0.05	
Chromium	0.011	0.021	<0.010	0.5	
Lead	0.019	<0.010	0.013	0.15	
Mercury	<0.00020	<0.00020	<0.00020	0.02	
Selenium	<0.025	<0.025	<0.025	0.5	
Silver	<0.0050	<0.0050	<0.0050	0.36	

ND – Not Detected (see laboratory reports for compound specific detection limits)

NE – None Established by DEEP

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

**TABLE 1(c) - Results of Soil and Concrete Sample Analyses
Phase II Environmental Site Assessment – 424-444 Chapel Street
New Haven, Connecticut**

Sample I.D.:	GP-6	GP-7	GP-8	CTDEEP PMC GB Groundwater Area	CTDEEP DEC Residential/ Commercial & Industrial
Matrix:	Soil	Soil	Soil		
PAOC #:	2	2	2		
Sample Depth:	1'-4'	1'-4'	1'-4'		
Sample Date:	8/25/16	8/25/16	8/25/16		
CT ETPH - (mg/kg)	ND	85.0	ND	2,500	500/2,500
VOCs - Method 8260 (mg/kg)					
Acetone	0.0162	0.0155	ND	140	500/1,000
Carbon disulfide	0.0056	ND	ND	NE	NE
1,1,1-Trichloroethane	0.0022	ND	ND	0.2	24/220
Trichloroethene	0.0168	ND	ND	1	56/520
SVOCs - Method 8270 (mg/kg)					
All Parameters	ND	ND	ND	Varies	Varies
Total RCRA 8 Metals - (mg/kg)					
Arsenic	1.1	0.84	1.2	Not Applicable	10/10
Barium	13.2	17.4	14.2		4,700/140,000
Cadmium	<0.34	<0.33	<0.34		34/1,000
Chromium	6.5	4.6	6.4		3,900/51,000
Lead	33.1	5.5	3.9		400/1,000
Mercury	<0.032	<0.032	<0.032		20/610
Selenium	<0.84	<0.83	<0.85		340/10,000
Silver	<0.42	<0.42	<0.42		340/10,000
SPLP RCRA 8 Metals - (mg/L)					
Arsenic	<0.010	<0.010	<0.010	0.5	Not Applicable
Barium	<0.50	<0.50	<0.50	10.0	
Cadmium	<0.0040	<0.0040	<0.0040	0.05	
Chromium	<0.010	<0.010	<0.010	0.5	
Lead	0.056	<0.010	<0.010	0.15	
Mercury	<0.00020	<0.00020	<0.00020	0.02	
Selenium	<0.025	<0.025	<0.025	0.5	
Silver	<0.0050	<0.0050	<0.0050	0.36	

ND – Not Detected (see laboratory reports for compound specific detection limits)

NE – None Established by DEEP

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

**TABLE 1(d) - Results of Soil and Concrete Sample Analyses
Phase II Environmental Site Assessment – 424-444 Chapel Street
New Haven, Connecticut**

Sample I.D.:	GP-9	GP-9C	GP-10	CTDEEP PMC GB Groundwater Area	CTDEEP DEC Residential/ Commercial & Industrial
Matrix:	Soil	Concrete	Soil		
PAOC #:	3	3	4		
Sample Depth:	1'-4'	0'-1'	1'-8'		
Sample Date:	8/24/16	8/24/16	8/25/16		
CT ETPH - (mg/kg)	ND	130	56.9	2,500	500/2,500
VOCs - Method 8260 (mg/kg)					
Acetone	0.045	0.0222	ND	140	500/1,000
Benzene	ND	0.00071	ND	0.1	21/200
Chloroform	0.0116	ND	ND	1.2	100/940
Dichlorodifluoromethane	0.003	ND	ND	NE	NE
Trichloroethene	ND	ND	0.0023	1	56/520
SVOCs - Method 8270 (mg/kg)					
Fluoranthene	0.179	ND	ND	56	1,000/2,500
Pyrene	0.117	ND	ND	40	1,000/2,500
Total RCRA 8 Metals - (mg/kg)					
Arsenic	1.5	2.8	<0.82	Not Applicable	10/10
Barium	31.8	48.2	14.4		4,700/140,000
Cadmium	<0.33	<0.36	<0.33		34/1,000
Chromium	7.2	26.1	4.0		3,900/51,000
Lead	28.9	2.1	2.8		400/1,000
Mercury	0.039	<0.040	<0.032		20/610
Selenium	<0.83	<0.90	<0.82		340/10,000
Silver	<0.41	<0.45	<0.41		340/10,000
SPLP RCRA 8 Metals - (mg/L)					
Arsenic	<0.010	<0.010	<0.010	0.5	Not Applicable
Barium	<0.50	<0.50	<0.50	10.0	
Cadmium	<0.0040	<0.0040	<0.0040	0.05	
Chromium	<0.010	0.018	<0.010	0.5	
Lead	0.012	<0.010	<0.010	0.15	
Mercury	<0.00020	<0.00020	<0.00020	0.02	
Selenium	<0.025	<0.025	<0.025	0.5	
Silver	<0.0050	<0.0050	<0.0050	0.36	

ND – Not Detected (see laboratory reports for compound specific detection limits)

NE – None Established by DEEP

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

**TABLE 1(e) - Results of Soil and Concrete Sample Analyses
Phase II Environmental Site Assessment – 424-444 Chapel Street
New Haven, Connecticut**

Sample I.D.:	GP-12	GP-12C	CTDEEP PMC GB Groundwater Area	CTDEEP DEC Residential/ Commercial & Industrial
Matrix:	Soil	Concrete		
PAOC #:	5	5		
Sample Depth:	1'-4'	0'-1'		
Sample Date:	8/24/16	8/24/16		
CT ETPH - (mg/kg)	ND	85.6	2,500	500/2,500
VOCs - Method 8260 (mg/kg)				
Acetone	0.0662	0.066	140	500/1,000
Trichloroethene	0.0027	ND	1	56/520
SVOCs - Method 8270 (mg/kg)				
Benzo(b)fluoranthene	0.100	ND	1	1/7.8
Fluoranthene	0.105	ND	56	1,000/2,500
Pyrene	0.123	ND	40	1,000/2,500
Total RCRA 8 Metals - (mg/kg)				
Arsenic	1.8	2.9	Not Applicable	10/10
Barium	40.8	49.3		4,700/140,000
Cadmium	<0.33	<0.35		34/1,000
Chromium	11.9	16.5		3,900/51,000
Lead	21.7	3.4		400/1,000
Mercury	<0.034	<0.032		20/610
Selenium	<0.84	<0.88		340/10,000
Silver	<0.42	<0.44		340/10,000
SPLP RCRA 8 Metals - (mg/L)				
Arsenic	<0.010	<0.010	0.5	Not Applicable
Barium	<0.50	<0.50	10.0	
Cadmium	<0.0040	<0.0040	0.05	
Chromium	<0.010	0.020	0.5	
Lead	<0.010	<0.010	0.15	
Mercury	<0.00020	<0.00020	0.02	
Selenium	<0.025	<0.025	0.5	
Silver	<0.0050	<0.0050	0.36	

ND – Not Detected (see laboratory reports for compound specific detection limits)

NE – None Established by DEEP

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

**TABLE 1(f) - Results of Soil and Concrete Sample Analyses
Phase II Environmental Site Assessment – 424-444 Chapel Street
New Haven, Connecticut**

Sample I.D.:	GP-13	GP-14	GP-14C	CTDEEP PMC GB Groundwater Area	CTDEEP DEC Residential/ Commercial & Industrial
Matrix:	Soil	Soil	Concrete		
PAOC #:	6	7	7		
Sample Depth:	0'-2'	1'-4'	0'-1'		
Sample Date:	8/24/16	8/24/16	8/24/16		
CT ETPH - (mg/kg)	201	24.2	130	2,500	500/2,500
VOCs - Method 8260 (mg/kg)					
Acetone	0.131	0.0363	0.053	140	500/1,000
2-Hexanone	ND	ND	0.0132	NE	NE
Xylenes (total)	ND	ND	0.0038	19.5	500/1,000
SVOCs - Method 8270 (mg/kg)					
Benz(a)anthracene	0.276	0.120	ND	1	1/7.8
Benzo(a)pyrene	0.333	ND	ND	1	1/1
Benzo(b)fluoranthene	0.360	ND	ND	1	1/7.8
Benzo(g,h,i)perylene	0.263	ND	ND	NE	NE
Benzo(k)fluoranthene	0.283	ND	ND	1	8.4/78
Chrysene	0.348	0.115	ND	NE	NE
Fluoranthene	0.669	0.237	ND	56	1,000/2,500
Indeno(1,2,3-cd)pyrene	0.294	ND	ND	NE	NE
Phenanthrene	0.320	ND	ND	40	1,000/2,500
Pyrene	0.432	0.169	ND	40	1,000/2,500
PCBs - Method 8082 (mg/kg)					
Aroclor 1260	NA	ND	0.0757	Not Applicable	1/10
Total RCRA 8 Metals - (mg/kg)					
Arsenic	4.0	3.0	4.6	Not Applicable	10/10
Barium	65.1	57.2	46.7		4,700/140,000
Cadmium	<0.37	<0.35	<0.35		34/1,000
Chromium	17.9	11.6	13.7		3,900/51,000
Lead	54.8	24.0	2.3		400/1,000
Mercury	0.073	0.25	<0.033		20/610
Selenium	<0.93	<0.87	<0.87		340/10,000
Silver	<0.47	<0.43	<0.43		340/10,000
SPLP RCRA 8 Metals - (mg/L)					
Arsenic	<0.010	<0.010	<0.010	0.5	Not Applicable
Barium	<0.50	<0.50	<0.50	10.0	
Cadmium	<0.0040	<0.0040	<0.0040	0.05	
Chromium	0.017	<0.010	0.020	0.5	
Lead	<0.010	<0.010	<0.010	0.15	
Mercury	<0.00020	<0.00020	<0.00020	0.02	
Selenium	<0.025	<0.025	<0.025	0.5	
Silver	<0.0050	<0.0050	<0.0050	0.36	

ND – Not Detected (see laboratory reports for compound specific detection limits)

NE – None Established by DEEP

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

**TABLE 1(g) - Results of Soil and Concrete Sample Analyses
Phase II Environmental Site Assessment – 424-444 Chapel Street
New Haven, Connecticut**

Sample I.D.:	GP-15	GP-15C	GP-16	CTDEEP PMC GB Groundwater Area	CTDEEP DEC Residential/ Commercial & Industrial
Matrix:	Soil	Concrete	Soil		
PAOC #:	3	3	8		
Sample Depth:	1'-4'	0'-1'	1'-8'		
Sample Date:	8/24/16	8/24/16	8/25/16		
CT ETPH - (mg/kg)	67.0	135	55.4	2,500	500/2,500
VOCs - Method 8260 (mg/kg)					
Acetone	0.0521	0.0759	0.0403	140	500/1,000
Chloroform	0.0107	ND	ND	1.2	100/940
SVOCs - Method 8270 (mg/kg)					
Bis(2-ethylhexyl)phthalate	ND	0.347	ND	11	44/410
Benz(a)anthracene	0.349	ND	ND	1	1/7.8
Benzo(a)pyrene	0.388	ND	ND	1	1/1
Benzo(b)fluoranthene	0.322	ND	0.149	1	1/7.8
Benzo(g,h,i)perylene	ND	ND	0.135	NE	NE
Benzo(k)fluoranthene	0.295	ND	0.127	1	8.4/78
Chrysene	0.345	ND	0.120	NE	NE
Fluoranthene	0.719	ND	0.190	56	1,000/2,500
Indeno(1,2,3-cd)pyrene	0.314	ND	ND	NE	NE
Phenanthrene	0.200	ND	ND	40	1,000/2,500
Pyrene	0.570	ND	0.194	40	1,000/2,500
PCBs - Method 8082 (mg/kg)	ND	ND	NA	Not Applicable	1/10
Total RCRA 8 Metals - (mg/kg)					
Arsenic	1.8	2.6	2.4	Not Applicable	10/10
Barium	47.2	44.4	55.7		4,700/140,000
Cadmium	<0.35	<0.34	<0.34		34/1,000
Chromium	9.2	16.3	9.2		3,900/51,000
Lead	76.8	2.0	167		400/1,000
Mercury	0.080	<0.033	0.11		20/610
Selenium	<0.88	<0.84	<0.85		340/10,000
Silver	<0.44	1.4	<0.42		340/10,000
SPLP RCRA 8 Metals - (mg/L)					
Arsenic	<0.010	<0.010	<0.010	0.5	Not Applicable
Barium	<0.50	<0.50	<0.50	10.0	
Cadmium	<0.0040	<0.0040	<0.0040	0.05	
Chromium	<0.010	0.022	<0.010	0.5	
Lead	0.016	<0.010	0.029	0.15	
Mercury	<0.00020	<0.00020	<0.00020	0.02	
Selenium	<0.025	<0.025	<0.025	0.5	
Silver	<0.0050	<0.0050	<0.0050	0.36	

ND – Not Detected (see laboratory reports for compound specific detection limits)

NE – None Established by DEEP

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

**TABLE 1(h) - Results of Soil and Concrete Sample Analyses
Phase II Environmental Site Assessment – 424-444 Chapel Street
New Haven, Connecticut**

Sample I.D.:	GP-17	GP-18	GP-19	CTDEEP PMC GB Groundwater Area	CTDEEP DEC Residential/ Commercial & Industrial
Matrix:	Soil	Soil	Soil		
PAOC #:	8	9	9		
Sample Depth:	1'-8'	1'-8'	1'-8'		
Sample Date:	8/25/16	8/25/16	8/25/16		
CT ETPH - (mg/kg)	ND	ND	ND	2,500	500/2,500
VOCs - Method 8260 (mg/kg)					
Acetone	0.0194	0.0259	0.033	140	500/1,000
Benzene	ND	ND	0.0031	0.1	21/200
SVOCs - Method 8270 (mg/kg)					
Fluoranthene	ND	0.149	ND	56	1,000/2,500
Pyrene	ND	0.149	ND	40	1,000/2,500
Total RCRA 8 Metals - (mg/kg)					
Arsenic	1.7	2.9	1.5	Not Applicable	10/10
Barium	38.6	66.4	25.0		4,700/140,000
Cadmium	<0.33	0.35	<0.33		34/1,000
Chromium	9.9	15.4	9.1		3,900/51,000
Lead	49.7	68.1	21.1		400/1,000
Mercury	0.033	<0.036	<0.032		20/610
Selenium	<0.83	<0.89	<0.84		340/10,000
Silver	<0.42	<0.44	<0.42		340/10,000
SPLP RCRA 8 Metals - (mg/L)					
Arsenic	<0.010	<0.010	<0.010	0.5	Not Applicable
Barium	<0.50	<0.50	<0.50	10.0	
Cadmium	<0.0040	<0.0040	<0.0040	0.05	
Chromium	<0.010	0.010	<0.010	0.5	
Lead	0.015	0.042	<0.010	0.15	
Mercury	<0.00020	<0.00020	<0.00020	0.02	
Selenium	<0.025	<0.025	<0.025	0.5	
Silver	<0.0050	<0.0050	<0.0050	0.36	

ND – Not Detected (see laboratory reports for compound specific detection limits)

NE – None Established by DEEP

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

**TABLE 1(i) - Results of Soil and Concrete Sample Analyses
Phase II Environmental Site Assessment – 424-444 Chapel Street
New Haven, Connecticut**

Sample I.D.:	GP-20	CTDEEP PMC GB Groundwater Area	CTDEEP DEC Residential/ Commercial & Industrial
Matrix:	Soil		
PAOC #:	3		
Sample Depth:	1'-8'		
Sample Date:	8/25/16		
CT ETPH - (mg/kg)	37.3	2,500	500/2,500
VOCs - Method 8260 (mg/kg) Acetone	0.0297	140	500/1,000
SVOCs - Method 8270 (mg/kg) All Parameters	ND	Varies	Varies
Total RCRA 8 Metals - (mg/kg)		Not Applicable	
Arsenic	2.4		10/10
Barium	33.7		4,700/140,000
Cadmium	<0.35		34/1,000
Chromium	9.1		3,900/51,000
Lead	36.8		400/1,000
Mercury	<0.035		20/610
Selenium	<0.88		340/10,000
Silver	<0.44		340/10,000
SPLP RCRA 8 Metals - (mg/L)			Not Applicable
Arsenic	<0.010	0.5	
Barium	<0.50	10.0	
Cadmium	<0.0040	0.05	
Chromium	<0.010	0.5	
Lead	0.012	0.15	
Mercury	<0.00020	0.02	
Selenium	<0.025	0.5	
Silver	<0.0050	0.36	

ND – Not Detected (see laboratory reports for compound specific detection limits)

NE – None Established by DEEP

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

**TABLE 2(a) - Results of Groundwater Sample Analyses
Phase II Environmental Site Assessment – 424-444 Chapel Street
New Haven, Connecticut**

Sample I.D.:	GW-1	GW-2	CTDEEP Surface Water Protection Criteria	CTDEEP Volatilization Criteria Residential/Industrial & Commercial
Matrix:	Water	Water		
PAOC #:	8	9		
Sample Date:	8/25/16	8/25/16		
CT ETPH (mg/L)	0.162	ND	NE	NE
VOCs - Method 8260 (ug/L)				
Toluene	2.4	2.6	4,000,000	23,500/50,000
Vinyl chloride	2.9	ND	15,750	2/2
Xylenes (total)	4.1	4.7	270	21,300/50,000
SVOCs - Method 8270 (ug/L)				
Bis(2-ethylhexyl)phthalate	7.6	ND	59	NE
Total RCRA 8 Metals –ug/L				
Arsenic	<4.0	<4.0	4	NE
Barium	<50	326	2,200	NE
Cadmium	<4.0	<4.0	6	NE
Chromium	<10	<10	NE	NE
Lead	<5.0	<5.0	13	NE
Mercury	<0.20	<0.20	0.4	NE
Selenium	<10	<10	50	NE
Silver	<5.0	<5.0	12	NE
Dissolved RCRA 8 Metals – ug/L				
Arsenic	<4.0	<4.0	4	NE
Barium	<50	207	2,200	NE
Cadmium	<4.0	<4.0	6	NE
Chromium	<10	<10	NE	NE
Chromium	<5.0	<5.0	13	NE
Lead	<0.20	<0.20	0.4	NE
Mercury	<10	<10	50	NE
Selenium	<5.0	<5.0	12	NE
Silver				

ND - Not Detected at a concentration exceeding the laboratory's detection limit (see laboratory reports for compound specific detection limits)

NE – None Established by DEEP

**TABLE 3(a) - Results of QA/QC Sample Analyses
Trip Blank Sample
Phase II Environmental Site Assessment – 424-444 Chapel Street
New Haven, Connecticut**

Sample I.D.:	TB-1
Matrix:	Trip Blank
Sample Date:	8/25/16
VOCs – EPA Method 8260	ND

ND - Not Detected at a concentration exceeding the laboratory's detection limit (see laboratory reports for compound specific detection limits)

NE – None Established by DEEP

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

APPENDIX A – BORING LOGS

SOIL BORING LOG

Project: 424 Chapel Street

Boring: GP-1

Location: New Haven, CT

Inspector: J. Buehler

Client: CDR Group Inc.

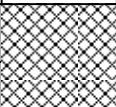
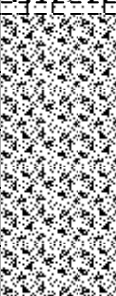

Date: 8-24-16



Logical Environmental Solutions

354 South River Road
Tolland, CT 06084

Truck, Portable & ATV/Backhoe-Mounted Geopros

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
		CONCRETE - 11"			
1.0		Olive-Brown fine to medium SAND, little Silt, trace fine Gravel	-0.9		
2.0		Dark-Brown SILT, little fine Sand, trace Brick, Asphalt & fine Gravel		--	Macro Core 0'-4'
3.0			-3.5		
4.0		Red-Brown fine to medium SAND, trace fine to coarse Gravel & Silt	-4.0		
5.0		End of Boring at 4'			
6.0					
7.0					
8.0					
9.0					
10.0					

Driller: W. Lineberry

Depth to Water: Dry

Boring Dia.: 2"

Rig: Geoprobe 540M

Boring Depth: 4'

Page: 1 of 1

SOIL BORING LOG

Project: 424 Chapel Street

Boring: GP-2

Location: New Haven, CT

Inspector: J. Buehler

Client: CDR Group Inc.

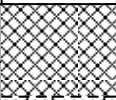



Date: 8-24-16



Logical Environmental Solutions

354 South River Road
Tolland, CT 06084

Truck, Portable & ATV/Backhoe-Mounted Geoprobos

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
		CONCRETE - 10"			
1.0		Olive-Brown fine to medium SAND, little Silt, trace fine Gravel	-0.8		
2.0		Dark-Brown SILT, little fine Sand, trace Brick, Asphalt & fine Gravel		--	Macro Core 0'-4'
3.0					
4.0		Red-Brown fine to medium SAND, trace fine to coarse Gravel & Silt	-3.5		
4.0			-4.0		
5.0		End of Boring at 4'			
6.0					
7.0					
8.0					
9.0					
10.0					

Driller: W. Lineberry

Depth to Water: Dry

Boring Dia.: 2"

Rig: Geoprobe 540M

Boring Depth: 4'

Page: 1 of 1

SOIL BORING LOG

Project: 424 Chapel Street

Boring: GP-3

Location: New Haven, CT

Inspector: J. Buehler

Client: CDR Group Inc.

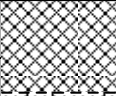
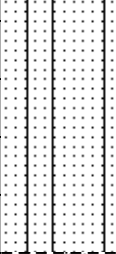
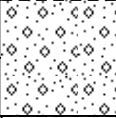
Date: 8-24-16



Logical Environmental Solutions

**354 South River Road
Tolland, CT 06084**

Truck, Portable & ATV/Backhoe-Mounted Geoprobes

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
0.0 to 0.8		CONCRETE - 10"	-0.8		
0.8 to 3.0		Olive-Brown fine to medium SAND, little Silt, trace fine Gravel	-3.0	--	Macro Core 0'-4'
3.0 to 4.0		Red-Brown fine to coarse SAND, trace fine to coarse Gravel & Silt	-4.0		
4.0 to 10.0		End of Boring at 4'			

Driller: W. Lineberry

Depth to Water: Dry

Boring Dia.: 2"

Rig: Geoprobe 540M

Boring Depth: 4'

Page: 1 of 1

SOIL BORING LOG

Project: 424 Chapel Street

Boring: GP-4

Location: New Haven, CT

Inspector: J. Buehler

Client: CDR Group Inc.





Date: 8-24-16



Logical Environmental Solutions

354 South River Road
Tolland, CT 06084

Truck, Portable & ATV/Backhoe-Mounted Geoprobos

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
		CONCRETE - 7"	-0.6		Macro Core 0'-4'
1.0		Olive-Brown fine to medium GRAVEL, little Silt, trace fine to coarse Sand	-1.5		
2.0		BRICK & Weathered CONCRETE	-3.0	--	
3.0		Weathered CONCRETE mixed with Brown fine Sand	-4.0		
4.0		End of Boring at 4'			
5.0					
6.0					
7.0					
8.0					
9.0					
10.0					

Driller: W. Lineberry

Depth to Water: Dry

Boring Dia.: 2"

Rig: Geoprobe 540M

Boring Depth: 4'

Page: 1 of 1

SOIL BORING LOG

Project: 424 Chapel Street

Boring: GP-5

Location: New Haven, CT

Inspector: J. Buehler

Client: CDR Group Inc.


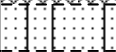
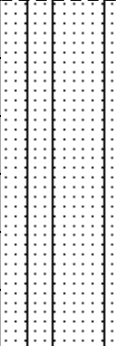
Date: 8-24-16



Logical Environmental Solutions

354 South River Road
Tolland, CT 06084

Truck, Portable & ATV/Backhoe-Mounted Geopros

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
		CONCRETE - 8"	-0.6		
		Olive-Brown fine to medium SAND, little Silt, trace fine Gravel	-1.0		
2.0		Red-Brown fine to medium SAND, little Silt, trace fine to coarse Gravel		--	Macro Core 0'-4'
4.0			-4.0		
5.0		End of Boring at 4'			
6.0					
7.0					
8.0					
9.0					
10.0					

Driller: W. Lineberry

Depth to Water: Dry

Boring Dia.: 2"

Rig: Geoprobe 540M

Boring Depth: 4'

Page: 1 of 1

SOIL BORING LOG

Project: 424 Chapel Street

Boring: GP-6

Location: New Haven, CT

Inspector: J. Buehler

Client: CDR Group Inc.

Date: 8-25-16



Logical Environmental Solutions

354 South River Road
Tolland, CT 06084

Truck, Portable & ATV/Backhoe-Mounted Geoprobos

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
		ASPHALT - 3"	-0.3		
		Gray fine to medium GRAVEL mixed with Red-Brown fine to medium Sand	-0.7		
1.0					
2.0		Red-Brown SILT, trace fine Sand		--	Macro Core 0'-4'
3.0					
			-3.5		
4.0		Red-Brown fine to coarse SAND, little fine to coarse Gravel, trace Silt			
			-4.5		
5.0					
6.0		Red-Brown fine to medium SAND, trace Silt		--	Macro Core 4'-8'
7.0					
			-8.0		
8.0		End of Boring at 8'			
9.0					
10.0					

Driller: W. Lineberry

Depth to Water: Dry

Boring Dia.: 2"

Rig: Geoprobe 540M

Boring Depth: 8'

Page: 1 of 1

SOIL BORING LOG

Project: 424 Chapel Street

Boring: GP-7

Location: New Haven, CT

Inspector: J. Buehler

Client: CDR Group Inc.

Date: 8-25-16



Logical Environmental Solutions

354 South River Road
Tolland, CT 06084

Truck, Portable & ATV/Backhoe-Mounted Geoprobes

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
		ASPHALT - 3"	-0.3		
		Gray fine to medium GRAVEL mixed with Red-Brown fine to medium Sand	-0.7		
1.0					
2.0		Orange-Brown SILT, trace fine Sand		--	Macro Core 0'-4'
3.0			-3.0		
4.0		Red-Brown fine to coarse SAND, little fine to coarse Gravel, trace Silt			
5.0			-4.5		
6.0		Red-Brown fine to medium SAND, trace Silt		--	Macro Core 4'-8'
7.0					
8.0			-8.0		
9.0		End of Boring at 8'			
10.0					

Driller: W. Lineberry

Depth to Water: Dry

Boring Dia.: 2"

Rig: Geoprobe 540M

Boring Depth: 8'

Page: 1 of 1

SOIL BORING LOG

Project: 424 Chapel Street

Boring: GP-8

Location: New Haven, CT

Inspector: J. Buehler

Client: CDR Group Inc.

Date: 8-25-16



Logical Environmental Solutions

354 South River Road
Tolland, CT 06084

Truck, Portable & ATV/Backhoe-Mounted Geopros

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
		ASPHALT - 2"	-0.3		
1.0		Red-Brown SILT, trace Crushed Asphalt & fine to medium Sand			
2.0			-2.0	--	Macro Core 0'-4'
3.0		Red-Brown fine to coarse SAND, trace Silt			
4.0					
5.0					
6.0				--	Macro Core 4'-8'
7.0					
8.0			-8.0		
9.0		End of Boring at 8'			
10.0					

Driller: W. Lineberry

Depth to Water: Dry

Boring Dia.: 2"

Rig: Geoprobe 540M

Boring Depth: 8'

Page: 1 of 1

SOIL BORING LOG

Project: 424 Chapel Street

Boring: GP-9

Location: New Haven, CT

Inspector: J. Buehler

Client: CDR Group Inc.



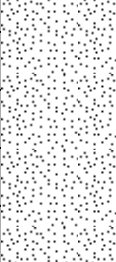
Date: 8-24-16



Logical Environmental Solutions

**354 South River Road
Tolland, CT 06084**

Truck, Portable & ATV/Backhoe-Mounted Geopros

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
		CONCRETE - 8"	-0.7		
1.0		Olive-Brown fine to medium SAND, little Silt, trace fine Gravel	-1.7		
2.0		Red-Brown fine to medium SAND, trace Silt		--	Macro Core 0'-4'
4.0			-4.0		
5.0		End of Boring at 4'			
6.0					
7.0					
8.0					
9.0					
10.0					

Driller: W. Lineberry

Depth to Water: Dry

Boring Dia.: 2"

Rig: Geoprobe 540M

Boring Depth: 4'

Page: 1 of 1

SOIL BORING LOG

Project: 424 Chapel Street

Boring: GP-10

Location: New Haven, CT

Inspector: J. Buehler

Client: CDR Group Inc.

Date: 8-25-16



Logical Environmental Solutions

354 South River Road
Tolland, CT 06084

Truck, Portable & ATV/Backhoe-Mounted Geoprobos

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
		ASPHALT - 3"	-0.3		
		Gray fine to medium GRAVEL mixed with Red-Brown fine to medium Sand	-0.7		
1.0					
2.0				--	Macro Core 0'-4'
3.0		Red-Brown fine to medium SAND, trace fine to coarse Gravel & Crushed Asphalt			
4.0					
5.0			-5.0		
6.0				--	Macro Core 4'-8'
7.0		Red-Brown fine to coarse SAND, trace Silt			
8.0			-8.0		
9.0		End of Boring at 8'			
10.0					

Driller: W. Lineberry

Depth to Water: Dry

Boring Dia.: 2"

Rig: Geoprobe 540M

Boring Depth: 8'

Page: 1 of 1

SOIL BORING LOG

Project: 424 Chapel Street

Boring: GP-12

Location: New Haven, CT

Inspector: J. Buehler

Client: CDR Group Inc.

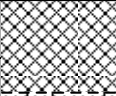
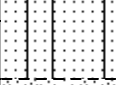
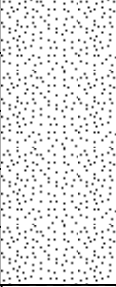
Date: 8-24-16



Logical Environmental Solutions

354 South River Road
Tolland, CT 06084

Truck, Portable & ATV/Backhoe-Mounted Geopros

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
		CONCRETE - 9"	-0.8		
1.0		Brown fine to medium SAND, little Silt, trace fine Gravel	-1.5		
2.0		Brown to Orange-Brown fine to medium SAND, trace Silt & fine Gravel		--	Macro Core 0'-4'
4.0			-4.0		
5.0		End of Boring at 4'			
6.0					
7.0					
8.0					
9.0					
10.0					

Driller: W. Lineberry

Depth to Water: Dry

Boring Dia.: 2"

Rig: Geoprobe 540M

Boring Depth: 4'

Page: 1 of 1

SOIL BORING LOG

Project: 424 Chapel Street

Boring: GP-13

Location: New Haven, CT

Inspector: J. Buehler

Client: CDR Group Inc.

Date: 8-24-16



Logical Environmental Solutions

**354 South River Road
Tolland, CT 06084**

Truck, Portable & ATV/Backhoe-Mounted Geoprobos

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
		Dark-Brown SILT, little fine to medium Sand, trace fine to coarse Gravel & Cobble	-0.4		Hand Auger 0'-2'
1.0		Red-Brown fine to medium SAND, little Silt, trace fine to coarse Gravel & Cobble	-2.0		
2.0		End of Boring at 2'			
3.0		Boring Hand Augered due to Utility Conflict			
4.0					
5.0					
6.0					
7.0					
8.0					
9.0					
10.0					

Driller: W. Lineberry

Depth to Water: Dry

Boring Dia.: 4"

Rig: Hand Auger

Boring Depth: 2'

Page: 1 of 1

SOIL BORING LOG

Project: 424 Chapel Street

Boring: GP-14

Location: New Haven, CT

Inspector: J. Buehler

Client: CDR Group Inc.




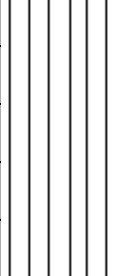
Date: 8-24-16



Logical Environmental Solutions

354 South River Road
Tolland, CT 06084

Truck, Portable & ATV/Backhoe-Mounted Geopros

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
		CONCRETE - 7"	-0.6		
		Olive-Brown fine to medium GRAVEL, little Silt, trace fine to coarse Sand	-1.0		
		Red-Brown fine to medium SAND, little Silt, trace fine to coarse Gravel	-1.5		
2.0		Dark-Brown SILT, trace fine Sand & Gravel		--	Macro Core 0'-4'
4.0		End of Boring at 4'	-4.0		
5.0					
6.0					
7.0					
8.0					
9.0					
10.0					

Driller: W. Lineberry

Depth to Water: Dry

Boring Dia.: 2"

Rig: Geoprobe 540M

Boring Depth: 4'

Page: 1 of 1

SOIL BORING LOG

Project: 424 Chapel Street

Boring: GP-15

Location: New Haven, CT

Inspector: J. Buehler

Client: CDR Group Inc.



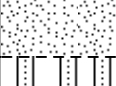
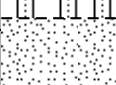

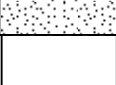
Date: 8-24-16



Logical Environmental Solutions

354 South River Road
Tolland, CT 06084

Truck, Portable & ATV/Backhoe-Mounted Geoprobos

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
		CONCRETE - 9"			
1.0		Brown fine to medium SAND, little fine to coarse Gravel, trace Silt	-0.8		Macro Core 0'-4'
		Red-Brown fine to medium SAND, trace Silt & fine to coarse Gravel	-1.5		
2.0		Dark-Brown SILT, trace fine to medium Sand	-2.0		
		Brown to Orange-Brown fine to medium SAND, trace Silt & fine Gravel	-2.4	--	
3.0					
4.0			-4.0		
5.0		End of Boring at 4'			
6.0					
7.0					
8.0					
9.0					
10.0					

Driller: W. Lineberry

Depth to Water: Dry

Boring Dia.: 2"

Rig: Geoprobe 540M

Boring Depth: 4'

Page: 1 of 1

SOIL BORING LOG

Project: 424 Chapel Street

Boring: GP-16

Location: New Haven, CT

Inspector: J. Buehler

Client: CDR Group Inc.

Date: 8-25-16



Logical Environmental Solutions

354 South River Road
Tolland, CT 06084

Truck, Portable & ATV/Backhoe-Mounted Geoprobos

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
	[Symbol]	ASPHALT - 8"	-0.7		
1.0	[Symbol]	BRICK mixed with Dark-Brown Silt, trace fine to coarse Gravel & fine Sand	-2.0	--	Macro Core 0'-4'
2.0	[Symbol]				
3.0	[Symbol]				
4.0	[Symbol]	Brown SILT, trace fine to coarse Gravel & fine Sand			
5.0	[Symbol]		-5.5		
6.0	[Symbol]	BRICK mixed with Dark-Brown Silt, trace fine to coarse Gravel & fine Sand	-7.5	--	Macro Core 4'-8'
7.0	[Symbol]				
8.0	[Symbol]	Orange-Brown to Red-Brown fine to medium SAND, trace Silt	-8.0		
9.0		End of Boring at 8'			
10.0					

Driller: W. Lineberry

Depth to Water: Dry

Boring Dia.: 2"

Rig: Geoprobe 540M

Boring Depth: 8'

Page: 1 of 1

SOIL BORING LOG

Project: 424 Chapel Street

Boring: GP-17

Location: New Haven, CT

Inspector: J. Buehler

Client: CDR Group Inc.

Date: 8-25-16



Logical Environmental Solutions

354 South River Road
Tolland, CT 06084

Truck, Portable & ATV/Backhoe-Mounted Geoprobos

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
		ASPHALT - 6"	-0.5		
1.0		Dark-Brown to Red-Brown SILT, trace fine to coarse Gravel & fine Sand	-2.0	--	Macro Core 0'-4'
2.0					
3.0					
4.0					
5.0		Red-Brown fine to medium SAND, little Silt, trace fine to medium Gravel			
6.0				--	Macro Core 4'-8'
7.0					
			-7.5		
8.0		Red-Brown coarse SAND, trace fine to medium Sand & fine Gravel	-8.0		
9.0		End of Boring at 8'			
10.0					

Driller: W. Lineberry

Depth to Water: Dry

Boring Dia.: 2"

Rig: Geoprobe 540M

Boring Depth: 8'

Page: 1 of 1

SOIL BORING LOG

Project: 424 Chapel Street

Boring: GP-18

Location: New Haven, CT

Inspector: J. Buehler

Client: CDR Group Inc.

Date: 8-25-16



Logical Environmental Solutions

**354 South River Road
Tolland, CT 06084**

Truck, Portable & ATV/Backhoe-Mounted Geopros

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
	[Symbol]	ASPHALT - 5"	-0.4		
1.0	[Symbol]	Dark-Brown to Black SILT, trace fine to coarse Gravel & fine Sand mixed with Brick			Macro Core 0'-4'
2.0	[Symbol]			--	
3.0	[Symbol]				
3.5			-3.5		
4.0	[Symbol]	Orange-Brown SILT, trace fine Sand			Macro Core 4'-8'
5.0	[Symbol]				
6.0	[Symbol]				
6.0			-6.0	--	
7.0	[Symbol]	Red-Brown fine to coarse SAND, little fine to coarse Gravel, trace Silt			
8.0	[Symbol]				
8.0			-8.0		
9.0		End of Boring at 8'			
10.0					

Driller: W. Lineberry

Depth to Water: Dry

Boring Dia.: 2"

Rig: Geoprobe 540M

Boring Depth: 8'

Page: 1 of 1

SOIL BORING LOG

Project: 424 Chapel Street

Boring: GP-19

Location: New Haven, CT

Inspector: J. Buehler

Client: CDR Group Inc.

Date: 8-25-16



Logical Environmental Solutions

354 South River Road
Tolland, CT 06084

Truck, Portable & ATV/Backhoe-Mounted Geoprobos

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
0.0 - 1.0		ASPHALT - 14"	-1.2		
1.0 - 2.0		Dark-Brown fine to medium SAND, trace Crushed Asphalt	-2.0	--	Macro Core 0'-4'
2.0 - 3.5		Brown to Red-Brown fine to medium SAND, trace fine to coarse Gravel	-3.5		
3.5 - 4.0					
4.0 - 6.0		Red-Brown fine to coarse SAND, trace fine Gravel		--	Macro Core 4'-8'
6.0 - 7.0					
7.0 - 8.0			-8.0		
8.0 - 9.0		End of Boring at 8'			
9.0 - 10.0					

Driller: W. Lineberry

Depth to Water: Dry

Boring Dia.: 2"

Rig: Geoprobe 540M

Boring Depth: 8'

Page: 1 of 1

SOIL BORING LOG

Project: 424 Chapel Street

Boring: GP-20

Location: New Haven, CT

Inspector: J. Buehler

Client: CDR Group Inc.

Date: 8-25-16



Logical Environmental Solutions

354 South River Road
Tolland, CT 06084

Truck, Portable & ATV/Backhoe-Mounted Geoprobos

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
		ASPHALT - 3"	-0.3		
1.0		Red-Brown SILT, trace Crushed Asphalt	-1.5		
2.0		Red-Brown fine to medium SAND, trace fine to coarse Gravel	-5.0	--	Macro Core 0'-4'
3.0					
4.0					
5.0		Orange-Brown SILT, trace fine Sand & Gravel	-6.0	--	Macro Core 4'-8'
6.0					
7.0		Red-Brown fine to coarse SAND, trace Silt	-8.0		
8.0		End of Boring at 8'			
9.0					
10.0					

Driller: W. Lineberry

Depth to Water: Dry

Boring Dia.: 2"

Rig: Geoprobe 540M

Boring Depth: 8'

Page: 1 of 1

APPENDIX B – LABORATORY REPORTS

Technical Report for

CDR Maguire

424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

0092-0531

SGS Accutest Job Number: MC47535

Sampling Date: 08/25/16

Report to:

CDR Maguire
2080 Silas Deane Highway
Rocky Hill, CT 06067
jane.witherell@cdrmaguire.com

ATTN: Jane Witherell

Total number of pages in report: **231**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

H. (Brad) Madadian
Lab Director

Client Service contact: Jeremy Vienneau 508-481-6200

Certifications: MA (M-MA136, SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of SGS Accutest.
Test results relate only to samples analyzed.

Table of Contents

-1-

Section 1: Sample Summary	4
Section 2: Case Narrative/Conformance Summary	6
Section 3: Summary of Hits	10
Section 4: Sample Results	14
4.1: MC47535-1: GP-16	15
4.2: MC47535-1A: GP-16	23
4.3: MC47535-2: GP-17	24
4.4: MC47535-2A: GP-17	32
4.5: MC47535-3: GP-18	33
4.6: MC47535-3A: GP-18	41
4.7: MC47535-4: GP-19	42
4.8: MC47535-4A: GP-19	50
4.9: MC47535-5: GP-20	51
4.10: MC47535-5A: GP-20	59
4.11: MC47535-6: GP-8	60
4.12: MC47535-6A: GP-8	68
4.13: MC47535-7: GP-10	69
4.14: MC47535-7A: GP-10	77
4.15: MC47535-8: GP-6	78
4.16: MC47535-8A: GP-6	86
4.17: MC47535-9: GP-7	87
4.18: MC47535-9A: GP-7	95
4.19: MC47535-10: GW-1	96
4.20: MC47535-10F: GW-1	104
4.21: MC47535-11: GW-2	105
4.22: MC47535-11F: GW-2	113
4.23: MC47535-12: TB-1	114
Section 5: Misc. Forms	117
5.1: Chain of Custody	118
5.2: RCP Form	121
5.3: Sample Tracking Chronicle	122
5.4: QC Evaluation: CT RCP Limits	127
Section 6: GC/MS Volatiles - QC Data Summaries	142
6.1: Method Blank Summary	143
6.2: Blank Spike Summary	149
6.3: Blank Spike/Blank Spike Duplicate Summary	152
6.4: Internal Standard Area Summaries	155
6.5: Surrogate Recovery Summaries	157
Section 7: GC/MS Semi-volatiles - QC Data Summaries	159
7.1: Method Blank Summary	160
7.2: Blank Spike Summary	166
7.3: Blank Spike/Blank Spike Duplicate Summary	169

Table of Contents

-2-

7.4: Internal Standard Area Summaries	172
7.5: Surrogate Recovery Summaries	176
Section 8: GC Semi-volatiles - QC Data Summaries	179
8.1: Method Blank Summary	180
8.2: Blank Spike Summary	182
8.3: Surrogate Recovery Summaries	184
Section 9: Metals Analysis - QC Data Summaries	186
9.1: Prep QC MP26704: As,Ba,Cd,Cr,Pb,Se,Ag	187
9.2: Prep QC MP26705: As,Ba,Cd,Cr,Pb,Se,Ag	199
9.3: Prep QC MP26712: Hg	209
9.4: Prep QC MP26716: As,Ba,Cd,Cr,Pb,Se,Ag	213
9.5: Prep QC MP26719: Hg	223
9.6: Prep QC MP26722: Hg	228

1

2

3

4

5

6

7

8

9



Sample Summary

CDR Maguire

Job No: MC47535

424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
 Project No: 0092-0531

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
MC47535-1	08/25/16	07:00 JB	08/26/16	SO	Soil	GP-16
MC47535-1A	08/25/16	07:00 JB	08/26/16	SO	Soil	GP-16
MC47535-2	08/25/16	07:30 JB	08/26/16	SO	Soil	GP-17
MC47535-2A	08/25/16	07:30 JB	08/26/16	SO	Soil	GP-17
MC47535-3	08/25/16	08:15 JB	08/26/16	SO	Soil	GP-18
MC47535-3A	08/25/16	08:15 JB	08/26/16	SO	Soil	GP-18
MC47535-4	08/25/16	08:30 JB	08/26/16	SO	Soil	GP-19
MC47535-4A	08/25/16	08:30 JB	08/26/16	SO	Soil	GP-19
MC47535-5	08/25/16	09:45 JB	08/26/16	SO	Soil	GP-20
MC47535-5A	08/25/16	09:45 JB	08/26/16	SO	Soil	GP-20
MC47535-6	08/25/16	10:00 JB	08/26/16	SO	Soil	GP-8
MC47535-6A	08/25/16	10:00 JB	08/26/16	SO	Soil	GP-8
MC47535-7	08/25/16	10:15 JB	08/26/16	SO	Soil	GP-10

Soil samples reported on a dry weight basis unless otherwise indicated on result page.



Sample Summary

(continued)

CDR Maguire

Job No: MC47535

424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
 Project No: 0092-0531

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
MC47535-7A	08/25/16	10:15 JB	08/26/16	SO	Soil	GP-10
MC47535-8	08/25/16	10:30 JB	08/26/16	SO	Soil	GP-6
MC47535-8A	08/25/16	10:30 JB	08/26/16	SO	Soil	GP-6
MC47535-9	08/25/16	10:45 JB	08/26/16	SO	Soil	GP-7
MC47535-9A	08/25/16	10:45 JB	08/26/16	SO	Soil	GP-7
MC47535-10	08/25/16	08:00 JB	08/26/16	AQ	Ground Water	GW-1
MC47535-10F	08/25/16	08:00 JB	08/26/16	AQ	Groundwater Filtered	GW-1
MC47535-11	08/25/16	08:00 JB	08/26/16	AQ	Ground Water	GW-2
MC47535-11F	08/25/16	08:00 JB	08/26/16	AQ	Groundwater Filtered	GW-2
MC47535-12	08/25/16	11:00 JB	08/26/16	AQ	Trip Blank Water	TB-1

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: CDR Maguire

Job No MC47535

Site: 424 Chapel Street, Phase II Environmental Assessment, New Haven,

Report Date 9/2/2016 6:23:00 PM

20 Sample(s) and 1 Trip Blank(s) were collected on 08/25/2016 and were received at SGS Accutest New England on 08/26/2016 properly preserved, at 0.7 Deg. C and intact. These Samples received a job number of MC47535. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260C

Matrix: AQ	Batch ID: MSN3826
-------------------	--------------------------

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Quadratic regression is employed for initial calibration standard MSN3802-ICC3802 for dichlorodifluoromethane.
- MSN3826-BS for Hexachlorobutadiene, 2-Hexanone: Outside RCP control limits.
- Blank Spike Duplicate is being reported but is not required for RCP criteria.

Matrix: SO	Batch ID: MSM2885
-------------------	--------------------------

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Quadratic regression is employed for initial calibration standard MSM2881-ICC2881 for 2-butanone.
- Initial Calibration Verification MSM2881-ICV2881 for Acetone, 2-butanone exceed 30% difference (biased high). Associated sample result may be biased high or non-detect for this compound.
- Continuing calibration check standard MSM2885-CC2881 for chloromethane, bromomethane, chloroethane, trichlorofluoromethane exceed 20% Difference (biased high). Associated samples are non-detect for this compound.

Extractables by GCMS By Method SW846 8270D

Matrix: AQ

Batch ID: OP48571

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for 2,4-Dinitrophenol, 4,6-Dinitro-o-cresol are outside control limits. Associated samples are non-detect for this compound.
- OP48571-BS for Phenol, Pyridine: Outside RCP control limits.
- Blank Spike Duplicate is being reported but is not required for RCP criteria.
- Initial calibration verification standard MSW1188-ICV1188, file W29512 for 2,4-Dinitrophenol, 4,6-Dinitro-2-methylphenol exceed 30% difference (biased high). Associated samples are non-detect for this compound.
- Continuing calibration check standard MSW1196-CC1188 for 2-Nitrophenol, 2,6-Dinitrotoluene, 2,4-Dinitrophenol, 2,4-Dinitrotoluene, 4-Nitrophenol, 2-nitroaniline, 4,6-Dinitro-2-methylphenol, 2,4,6-Tribromophenol, Butylbenzylphthalate, bis(2-Ethylhexyl)phthalate, Di-n-octylphthalate exceed 20% Difference (biased high). Associated samples are non-detect or sample result (bis(2-Ethylhexyl)phthalate) may be biased high for this target compound.
- Quadratic regression is employed for initial calibration standard MSW1188-ICC1188 for Hexachlorocyclopentadiene, 2,4-Dinitrophenol, 4,6-Dinitro-2-methylphenol, 2,4,6-Tribromophenol, Pentachlorophenol.

Matrix: SO

Batch ID: OP48551

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for 2,4-Dinitrophenol, 4,6-Dinitro-o-cresol are outside control limits. Associated samples are non-detect for this compound.
- Continuing calibration check standard MSW1195-CC1188 for 2-Nitrophenol, 2,4-Dinitrophenol, 2,4-Dinitrotoluene, 4-Nitrophenol, 2-nitroaniline, 3-nitroaniline, 4,6-Dinitro-2-methylphenol, Butylbenzylphthalate exceed 20% Difference (biased high). Only OP48551-MB/BS associated with this check standard.
- Continuing calibration check standard MSW1197-CC1188 for 2-Nitrophenol, 2,4-Dinitrophenol, 2,4-Dinitrotoluene, 4-Nitrophenol, 2-nitroaniline, 4,6-Dinitro-2-methylphenol, 2,4,6-Tribromophenol, Butylbenzylphthalate, Di-n-octylphthalate exceed 20% Difference (biased high). Associated samples are non-detect for this target compound.
- Initial calibration verification standard MSW1188-ICV1188, file W29512 for 2,4-Dinitrophenol, 4,6-Dinitro-2-methylphenol exceed 30% difference (biased high). Associated samples are non-detect for this compound.

Extractables by GCMS By Method SW846 8270D BY SIM

Matrix: AQ

Batch ID: OP48572

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Only PAHs requested.

Extractables by GC By Method CT-ETPH 7/06

Matrix: AQ

Batch ID: OP48576

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Matrix: SO

Batch ID: OP48569

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Metals By Method SW846 6010C

Matrix: AQ

Batch ID: MP26705

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC47535-11FMS, MC47535-11FMSD, MC47535-11FSDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Cadmium, Selenium are outside control limits for sample MP26705-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- Only selected metals requested.

Matrix: LEACHATE

Batch ID: MP26716

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC47535-1AMS, MC47535-1AMS, MC47535-1ASDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Arsenic are outside control limits for sample MP26716-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- Only selected metals requested.

Matrix: SO

Batch ID: MP26704

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC47535-7MS, MC47535-7MSD, MC47535-7SDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Arsenic, Cadmium are outside control limits for sample MP26704-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- Only selected metals requested.

Metals By Method SW846 7470A

Matrix: AQ

Batch ID: MP26712

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC47535-10FMS, MC47535-10FMSD were used as the QC samples for metals.

Matrix: LEACHATE

Batch ID: MP26722

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC47535-1AMS, MC47535-1AMS were used as the QC samples for metals.

Metals By Method SW846 7471B

Matrix: SO

Batch ID: MP26719

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC47535-7MS, MC47535-7MSD were used as the QC samples for metals.

SGS-Accutest may not have met all requested limits due to methodology limitations, sample matrix, dilutions, or percents solids.

SGS Accutest New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety. The Laboratory Director for SGS Accutest New England or assignee as verified by the signature on the cover page has authorized the release of this report(MC47535).

Friday, September 02, 2016

Page 4 of 4

Summary of Hits

Job Number: MC47535
Account: CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
Collected: 08/25/16



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
---------------	------------------	-----------------	----	-----	-------	--------

MC47535-1 GP-16

Acetone ^a	40.3	8.5		ug/kg	SW846 8260C
Benzo(b)fluoranthene	149	110		ug/kg	SW846 8270D
Benzo(g,h,i)perylene	135	110		ug/kg	SW846 8270D
Benzo(k)fluoranthene	127	110		ug/kg	SW846 8270D
Chrysene	120	110		ug/kg	SW846 8270D
Fluoranthene	190	110		ug/kg	SW846 8270D
Pyrene	194	110		ug/kg	SW846 8270D
CT-ETPH (C9-C36)	55.4	18		mg/kg	CT-ETPH 7/06
Arsenic	2.4	0.85		mg/kg	SW846 6010C
Barium	55.7	4.2		mg/kg	SW846 6010C
Chromium	9.2	0.85		mg/kg	SW846 6010C
Lead	167	0.85		mg/kg	SW846 6010C
Mercury	0.11	0.033		mg/kg	SW846 7471B

MC47535-1A GP-16

Lead	0.029	0.010		mg/l	SW846 6010C
------	-------	-------	--	------	-------------

MC47535-2 GP-17

Acetone ^a	19.4	10		ug/kg	SW846 8260C
Arsenic	1.7	0.83		mg/kg	SW846 6010C
Barium	38.6	4.2		mg/kg	SW846 6010C
Chromium	9.9	0.83		mg/kg	SW846 6010C
Lead	49.7	0.83		mg/kg	SW846 6010C
Mercury	0.033	0.031		mg/kg	SW846 7471B

MC47535-2A GP-17

Lead	0.015	0.010		mg/l	SW846 6010C
------	-------	-------	--	------	-------------

MC47535-3 GP-18

Acetone ^a	25.9	13		ug/kg	SW846 8260C
Fluoranthene	149	120		ug/kg	SW846 8270D
Pyrene	149	120		ug/kg	SW846 8270D
Arsenic	2.9	0.89		mg/kg	SW846 6010C
Barium	66.4	4.4		mg/kg	SW846 6010C
Cadmium	0.35	0.35		mg/kg	SW846 6010C
Chromium	15.4	0.89		mg/kg	SW846 6010C
Lead	68.1	0.89		mg/kg	SW846 6010C

Summary of Hits

Job Number: MC47535
Account: CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
Collected: 08/25/16



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
---------------	------------------	-----------------	----	-----	-------	--------

MC47535-3A GP-18

Chromium	0.010	0.010			mg/l	SW846 6010C
Lead	0.042	0.010			mg/l	SW846 6010C

MC47535-4 GP-19

Acetone ^a	33.0	9.4			ug/kg	SW846 8260C
Benzene	3.1	0.47			ug/kg	SW846 8260C
Arsenic	1.5	0.84			mg/kg	SW846 6010C
Barium	25.0	4.2			mg/kg	SW846 6010C
Chromium	9.1	0.84			mg/kg	SW846 6010C
Lead	21.1	0.84			mg/kg	SW846 6010C

MC47535-4A GP-19

No hits reported in this sample.

MC47535-5 GP-20

Acetone ^a	29.7	9.4			ug/kg	SW846 8260C
CT-ETPH (C9-C36)	37.3	18			mg/kg	CT-ETPH 7/06
Arsenic	2.4	0.88			mg/kg	SW846 6010C
Barium	33.7	4.4			mg/kg	SW846 6010C
Chromium	9.1	0.88			mg/kg	SW846 6010C
Lead	36.8	0.88			mg/kg	SW846 6010C

MC47535-5A GP-20

Lead	0.012	0.010			mg/l	SW846 6010C
------	-------	-------	--	--	------	-------------

MC47535-6 GP-8

Arsenic	1.2	0.85			mg/kg	SW846 6010C
Barium	14.2	4.2			mg/kg	SW846 6010C
Chromium	6.4	0.85			mg/kg	SW846 6010C
Lead	3.9	0.85			mg/kg	SW846 6010C

MC47535-6A GP-8

No hits reported in this sample.

MC47535-7 GP-10

Trichloroethene	2.3	2.0			ug/kg	SW846 8260C
-----------------	-----	-----	--	--	-------	-------------

Summary of Hits

Job Number: MC47535
Account: CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
Collected: 08/25/16



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
---------------	------------------	-----------------	----	-----	-------	--------

CT-ETPH (C9-C36)		56.9	17		mg/kg	CT-ETPH 7/06
Barium		14.4	4.1		mg/kg	SW846 6010C
Chromium		4.0	0.82		mg/kg	SW846 6010C
Lead		2.8	0.82		mg/kg	SW846 6010C

MC47535-7A GP-10

No hits reported in this sample.

MC47535-8 GP-6

Acetone ^a		16.2	8.6		ug/kg	SW846 8260C
Carbon disulfide		5.6	4.3		ug/kg	SW846 8260C
1,1,1-Trichloroethane		2.2	1.7		ug/kg	SW846 8260C
Trichloroethene		16.8	1.7		ug/kg	SW846 8260C
Arsenic		1.1	0.84		mg/kg	SW846 6010C
Barium		13.2	4.2		mg/kg	SW846 6010C
Chromium		6.5	0.84		mg/kg	SW846 6010C
Lead		33.1	0.84		mg/kg	SW846 6010C

MC47535-8A GP-6

Lead		0.056	0.010		mg/l	SW846 6010C
------	--	-------	-------	--	------	-------------

MC47535-9 GP-7

Acetone ^a		15.5	11		ug/kg	SW846 8260C
CT-ETPH (C9-C36)		85.0	16		mg/kg	CT-ETPH 7/06
Arsenic		0.84	0.83		mg/kg	SW846 6010C
Barium		17.4	4.2		mg/kg	SW846 6010C
Chromium		4.6	0.83		mg/kg	SW846 6010C
Lead		5.5	0.83		mg/kg	SW846 6010C

MC47535-9A GP-7

No hits reported in this sample.

MC47535-10 GW-1

Toluene		2.4	1.0		ug/l	SW846 8260C
m,p-Xylene		2.9	1.0		ug/l	SW846 8260C
o-Xylene		1.2	1.0		ug/l	SW846 8260C
bis(2-Ethylhexyl)phthalate ^b		7.6	2.1		ug/l	SW846 8270D
CT-ETPH (C9-C36)		0.162	0.10		mg/l	CT-ETPH 7/06

Summary of Hits

Job Number: MC47535
Account: CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
Collected: 08/25/16



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
---------------	------------------	-----------------	----	-----	-------	--------

MC47535-10F GW-1

No hits reported in this sample.

MC47535-11 GW-2

Toluene	2.6	1.0		ug/l	SW846 8260C
m,p-Xylene	3.4	1.0		ug/l	SW846 8260C
o-Xylene	1.3	1.0		ug/l	SW846 8260C
Barium	326	50		ug/l	SW846 6010C

MC47535-11F GW-2

Barium	207	50		ug/l	SW846 6010C
--------	-----	----	--	------	-------------

MC47535-12 TB-1

No hits reported in this sample.

- (a) Initial Calibration Verification outside of acceptance criteria. Sample result may be biased high.
- (b) Continuing Calibration outside acceptance criteria. Sample result may be biased high.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: GP-16		Date Sampled: 08/25/16
Lab Sample ID: MC47535-1		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 92.0
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M80616.D	1	08/30/16	KP	n/a	n/a	MSM2885
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	6.39 g	5.0 ml
Run #2		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone ^a	40.3	8.5	ug/kg	
107-13-1	Acrylonitrile	ND	21	ug/kg	
71-43-2	Benzene	ND	0.43	ug/kg	
108-86-1	Bromobenzene	ND	4.3	ug/kg	
75-27-4	Bromodichloromethane	ND	1.7	ug/kg	
75-25-2	Bromoform	ND	1.7	ug/kg	
74-83-9	Bromomethane	ND	1.7	ug/kg	
78-93-3	2-Butanone (MEK)	ND	17	ug/kg	
104-51-8	n-Butylbenzene	ND	4.3	ug/kg	
135-98-8	sec-Butylbenzene	ND	4.3	ug/kg	
98-06-6	tert-Butylbenzene	ND	4.3	ug/kg	
75-15-0	Carbon disulfide	ND	4.3	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.7	ug/kg	
108-90-7	Chlorobenzene	ND	1.7	ug/kg	
75-00-3	Chloroethane	ND	4.3	ug/kg	
67-66-3	Chloroform	ND	1.7	ug/kg	
74-87-3	Chloromethane	ND	4.3	ug/kg	
95-49-8	o-Chlorotoluene	ND	4.3	ug/kg	
106-43-4	p-Chlorotoluene	ND	4.3	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	4.3	ug/kg	
124-48-1	Dibromochloromethane	ND	1.7	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.7	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.7	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.7	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.7	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	1.7	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.7	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.7	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.7	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.7	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.7	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.7	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-16		Date Sampled: 08/25/16
Lab Sample ID: MC47535-1		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 92.0
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	4.3	ug/kg	
594-20-7	2,2-Dichloropropane	ND	4.3	ug/kg	
563-58-6	1,1-Dichloropropene	ND	4.3	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.7	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.7	ug/kg	
100-41-4	Ethylbenzene	ND	1.7	ug/kg	
76-13-1	Freon 113	ND	4.3	ug/kg	
87-68-3	Hexachlorobutadiene	ND	4.3	ug/kg	
591-78-6	2-Hexanone	ND	8.5	ug/kg	
98-82-8	Isopropylbenzene	ND	4.3	ug/kg	
99-87-6	p-Isopropyltoluene	ND	4.3	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.7	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.3	ug/kg	
74-95-3	Methylene bromide	ND	4.3	ug/kg	
75-09-2	Methylene chloride	ND	1.7	ug/kg	
91-20-3	Naphthalene	ND	4.3	ug/kg	
103-65-1	n-Propylbenzene	ND	4.3	ug/kg	
100-42-5	Styrene	ND	4.3	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	4.3	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.7	ug/kg	
127-18-4	Tetrachloroethene	ND	1.7	ug/kg	
109-99-9	Tetrahydrofuran	ND	8.5	ug/kg	
108-88-3	Toluene	ND	4.3	ug/kg	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	4.3	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	4.3	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	4.3	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	1.7	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	1.7	ug/kg	
79-01-6	Trichloroethene	ND	1.7	ug/kg	
75-69-4	Trichlorofluoromethane	ND	1.7	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	4.3	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	4.3	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	4.3	ug/kg	
75-01-4	Vinyl chloride	ND	1.7	ug/kg	
	m,p-Xylene	ND	1.7	ug/kg	
95-47-6	o-Xylene	ND	1.7	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	109%		65-141%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-16		Date Sampled: 08/25/16
Lab Sample ID: MC47535-1		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 92.0
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	103%		65-129%
460-00-4	4-Bromofluorobenzene	108%		63-137%

(a) Initial Calibration Verification outside of acceptance criteria. Sample result may be biased high.

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-16		Date Sampled: 08/25/16
Lab Sample ID: MC47535-1		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 92.0
Method: SW846 8270D SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W29700.D	1	08/31/16	MR	08/28/16	OP48551	MSW1197
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.2 g	1.0 ml
Run #2		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
95-57-8	2-Chlorophenol	ND	270	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	540	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	540	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	540	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	540	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	540	ug/kg	
95-48-7	2-Methylphenol	ND	540	ug/kg	
106-44-5	4-Methylphenol	ND	540	ug/kg	
88-75-5	2-Nitrophenol	ND	540	ug/kg	
100-02-7	4-Nitrophenol	ND	540	ug/kg	
87-86-5	Pentachlorophenol	ND	540	ug/kg	
108-95-2	Phenol	ND	270	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	540	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	540	ug/kg	
83-32-9	Acenaphthene	ND	110	ug/kg	
208-96-8	Acenaphthylene	ND	110	ug/kg	
62-53-3	Aniline	ND	540	ug/kg	
120-12-7	Anthracene	ND	110	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	ug/kg	
50-32-8	Benzo(a)pyrene	ND	270	ug/kg	
205-99-2	Benzo(b)fluoranthene	149	110	ug/kg	
191-24-2	Benzo(g,h,i)perylene	135	110	ug/kg	
207-08-9	Benzo(k)fluoranthene	127	110	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	270	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	270	ug/kg	
91-58-7	2-Chloronaphthalene	ND	270	ug/kg	
106-47-8	4-Chloroaniline	ND	540	ug/kg	
86-74-8	Carbazole	ND	110	ug/kg	
218-01-9	Chrysene	120	110	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	270	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	270	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	270	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-16		Date Sampled: 08/25/16
Lab Sample ID: MC47535-1		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 92.0
Method: SW846 8270D SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	270	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	540	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	540	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	540	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	ug/kg	
132-64-9	Dibenzofuran	ND	110	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	270	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	270	ug/kg	
84-66-2	Diethyl phthalate	ND	270	ug/kg	
131-11-3	Dimethyl phthalate	ND	270	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	270	ug/kg	
206-44-0	Fluoranthene	190	110	ug/kg	
86-73-7	Fluorene	ND	110	ug/kg	
118-74-1	Hexachlorobenzene	ND	270	ug/kg	
87-68-3	Hexachlorobutadiene	ND	270	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	540	ug/kg	
67-72-1	Hexachloroethane	ND	270	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	270	ug/kg	
78-59-1	Isophorone	ND	270	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	ug/kg	
88-74-4	2-Nitroaniline	ND	540	ug/kg	
99-09-2	3-Nitroaniline	ND	540	ug/kg	
100-01-6	4-Nitroaniline	ND	540	ug/kg	
91-20-3	Naphthalene	ND	110	ug/kg	
98-95-3	Nitrobenzene	ND	270	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	270	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	270	ug/kg	
82-68-8	Pentachloronitrobenzene	ND	540	ug/kg	
85-01-8	Phenanthrene	ND	110	ug/kg	
129-00-0	Pyrene	194	110	ug/kg	
110-86-1	Pyridine	ND	540	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	540	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	270	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	66%		25-109%
4165-62-2	Phenol-d5	67%		29-113%
118-79-6	2,4,6-Tribromophenol	91%		20-141%
4165-60-0	Nitrobenzene-d5	71%		27-115%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-16	Date Sampled: 08/25/16
Lab Sample ID: MC47535-1	Date Received: 08/26/16
Matrix: SO - Soil	Percent Solids: 92.0
Method: SW846 8270D SW846 3546	
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT	

ABN RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	71%		34-118%
1718-51-0	Terphenyl-d14	80%		42-139%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-16	Date Sampled: 08/25/16
Lab Sample ID: MC47535-1	Date Received: 08/26/16
Matrix: SO - Soil	Percent Solids: 92.0
Method: CT-ETPH 7/06 SW846 3546	
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CF4624.D	1	08/31/16	MD	08/29/16	OP48569	GCF1300
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-ETPH (C9-C36)	55.4	18	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	77%		50-137%	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.1
4

Report of Analysis

Client Sample ID: GP-16		Date Sampled: 08/25/16
Lab Sample ID: MC47535-1		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 92.0
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analized By	Method	Prep Method
Arsenic	2.4	0.85	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³
Barium	55.7	4.2	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³
Cadmium	< 0.34	0.34	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³
Chromium	9.2	0.85	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³
Lead	167	0.85	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³
Mercury	0.11	0.033	mg/kg	1	08/31/16	08/31/16 EAL	SW846 7471B ²	SW846 7471B ⁴
Selenium	< 0.85	0.85	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³
Silver	< 0.42	0.42	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³

- (1) Instrument QC Batch: MA19425
- (2) Instrument QC Batch: MA19431
- (3) Prep QC Batch: MP26704
- (4) Prep QC Batch: MP26719

RL = Reporting Limit

4.1
4

Report of Analysis

Client Sample ID: GP-16		Date Sampled: 08/25/16
Lab Sample ID: MC47535-1A		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 92.0
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Metals Analysis, SPLP Leachate SW846 1312

Analyte	Result	MCL	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 0.010	0.010		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Barium	< 0.50	0.50		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Cadmium	< 0.0040	0.0040		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Chromium	< 0.010	0.010		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Lead	0.029	0.010		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Mercury	< 0.00020	0.00020		mg/l	1	09/01/16	09/01/16 EAL	SW846 7470A ²	SW846 7470A ⁴
Selenium	< 0.025	0.025		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Silver	< 0.0050	0.0050		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³

- (1) Instrument QC Batch: MA19427
- (2) Instrument QC Batch: MA19433
- (3) Prep QC Batch: MP26716
- (4) Prep QC Batch: MP26722

RL = Reporting Limit
MCL = Maximum Contamination Level (not available)

4.2
4

Report of Analysis

Client Sample ID: GP-17		Date Sampled: 08/25/16
Lab Sample ID: MC47535-2		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 94.1
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M80617.D	1	08/30/16	KP	n/a	n/a	MSM2885
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	5.15 g	5.0 ml
Run #2		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone ^a	19.4	10	ug/kg	
107-13-1	Acrylonitrile	ND	26	ug/kg	
71-43-2	Benzene	ND	0.52	ug/kg	
108-86-1	Bromobenzene	ND	5.2	ug/kg	
75-27-4	Bromodichloromethane	ND	2.1	ug/kg	
75-25-2	Bromoform	ND	2.1	ug/kg	
74-83-9	Bromomethane	ND	2.1	ug/kg	
78-93-3	2-Butanone (MEK)	ND	21	ug/kg	
104-51-8	n-Butylbenzene	ND	5.2	ug/kg	
135-98-8	sec-Butylbenzene	ND	5.2	ug/kg	
98-06-6	tert-Butylbenzene	ND	5.2	ug/kg	
75-15-0	Carbon disulfide	ND	5.2	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.1	ug/kg	
108-90-7	Chlorobenzene	ND	2.1	ug/kg	
75-00-3	Chloroethane	ND	5.2	ug/kg	
67-66-3	Chloroform	ND	2.1	ug/kg	
74-87-3	Chloromethane	ND	5.2	ug/kg	
95-49-8	o-Chlorotoluene	ND	5.2	ug/kg	
106-43-4	p-Chlorotoluene	ND	5.2	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.2	ug/kg	
124-48-1	Dibromochloromethane	ND	2.1	ug/kg	
106-93-4	1,2-Dibromoethane	ND	2.1	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	2.1	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	2.1	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	2.1	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	2.1	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.1	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.1	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.1	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.1	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.1	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.1	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-17	Date Sampled:	08/25/16
Lab Sample ID:	MC47535-2	Date Received:	08/26/16
Matrix:	SO - Soil	Percent Solids:	94.1
Method:	SW846 8260C		
Project:	424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.2	ug/kg	
594-20-7	2,2-Dichloropropane	ND	5.2	ug/kg	
563-58-6	1,1-Dichloropropene	ND	5.2	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.1	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.1	ug/kg	
100-41-4	Ethylbenzene	ND	2.1	ug/kg	
76-13-1	Freon 113	ND	5.2	ug/kg	
87-68-3	Hexachlorobutadiene	ND	5.2	ug/kg	
591-78-6	2-Hexanone	ND	10	ug/kg	
98-82-8	Isopropylbenzene	ND	5.2	ug/kg	
99-87-6	p-Isopropyltoluene	ND	5.2	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.1	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.2	ug/kg	
74-95-3	Methylene bromide	ND	5.2	ug/kg	
75-09-2	Methylene chloride	ND	2.1	ug/kg	
91-20-3	Naphthalene	ND	5.2	ug/kg	
103-65-1	n-Propylbenzene	ND	5.2	ug/kg	
100-42-5	Styrene	ND	5.2	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.2	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.1	ug/kg	
127-18-4	Tetrachloroethene	ND	2.1	ug/kg	
109-99-9	Tetrahydrofuran	ND	10	ug/kg	
108-88-3	Toluene	ND	5.2	ug/kg	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.2	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.2	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.2	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.1	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.1	ug/kg	
79-01-6	Trichloroethene	ND	2.1	ug/kg	
75-69-4	Trichlorofluoromethane	ND	2.1	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	5.2	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	5.2	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	5.2	ug/kg	
75-01-4	Vinyl chloride	ND	2.1	ug/kg	
	m,p-Xylene	ND	2.1	ug/kg	
95-47-6	o-Xylene	ND	2.1	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		65-141%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-17		Date Sampled: 08/25/16
Lab Sample ID: MC47535-2		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 94.1
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

4.3
4

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	102%		65-129%
460-00-4	4-Bromofluorobenzene	109%		63-137%

(a) Initial Calibration Verification outside of acceptance criteria. Sample result may be biased high.

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-17		Date Sampled: 08/25/16
Lab Sample ID: MC47535-2		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 94.1
Method: SW846 8270D SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W29701.D	1	08/31/16	MR	08/28/16	OP48551	MSW1197
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.8 g	1.0 ml
Run #2		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
95-57-8	2-Chlorophenol	ND	260	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	510	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	510	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	510	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	510	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	510	ug/kg	
95-48-7	2-Methylphenol	ND	510	ug/kg	
106-44-5	4-Methylphenol	ND	510	ug/kg	
88-75-5	2-Nitrophenol	ND	510	ug/kg	
100-02-7	4-Nitrophenol	ND	510	ug/kg	
87-86-5	Pentachlorophenol	ND	510	ug/kg	
108-95-2	Phenol	ND	260	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	510	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	510	ug/kg	
83-32-9	Acenaphthene	ND	100	ug/kg	
208-96-8	Acenaphthylene	ND	100	ug/kg	
62-53-3	Aniline	ND	510	ug/kg	
120-12-7	Anthracene	ND	100	ug/kg	
56-55-3	Benzo(a)anthracene	ND	100	ug/kg	
50-32-8	Benzo(a)pyrene	ND	260	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	100	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	100	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	100	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	260	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	260	ug/kg	
91-58-7	2-Chloronaphthalene	ND	260	ug/kg	
106-47-8	4-Chloroaniline	ND	510	ug/kg	
86-74-8	Carbazole	ND	100	ug/kg	
218-01-9	Chrysene	ND	100	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	260	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	260	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	260	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-17		Date Sampled: 08/25/16
Lab Sample ID: MC47535-2		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 94.1
Method: SW846 8270D SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	260	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	510	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	510	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	510	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	100	ug/kg	
132-64-9	Dibenzofuran	ND	100	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	260	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	260	ug/kg	
84-66-2	Diethyl phthalate	ND	260	ug/kg	
131-11-3	Dimethyl phthalate	ND	260	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	260	ug/kg	
206-44-0	Fluoranthene	ND	100	ug/kg	
86-73-7	Fluorene	ND	100	ug/kg	
118-74-1	Hexachlorobenzene	ND	260	ug/kg	
87-68-3	Hexachlorobutadiene	ND	260	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	510	ug/kg	
67-72-1	Hexachloroethane	ND	260	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	260	ug/kg	
78-59-1	Isophorone	ND	260	ug/kg	
91-57-6	2-Methylnaphthalene	ND	100	ug/kg	
88-74-4	2-Nitroaniline	ND	510	ug/kg	
99-09-2	3-Nitroaniline	ND	510	ug/kg	
100-01-6	4-Nitroaniline	ND	510	ug/kg	
91-20-3	Naphthalene	ND	100	ug/kg	
98-95-3	Nitrobenzene	ND	260	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	260	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	260	ug/kg	
82-68-8	Pentachloronitrobenzene	ND	510	ug/kg	
85-01-8	Phenanthrene	ND	100	ug/kg	
129-00-0	Pyrene	ND	100	ug/kg	
110-86-1	Pyridine	ND	510	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	510	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	260	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	68%		25-109%
4165-62-2	Phenol-d5	69%		29-113%
118-79-6	2,4,6-Tribromophenol	93%		20-141%
4165-60-0	Nitrobenzene-d5	70%		27-115%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.3
4

Report of Analysis

Client Sample ID: GP-17		Date Sampled: 08/25/16
Lab Sample ID: MC47535-2		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 94.1
Method: SW846 8270D SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

ABN RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	72%		34-118%
1718-51-0	Terphenyl-d14	83%		42-139%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-17		Date Sampled: 08/25/16
Lab Sample ID: MC47535-2		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 94.1
Method: CT-ETPH 7/06 SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CF4618.D	1	08/31/16	MD	08/29/16	OP48569	GCF1300
Run #2							

	Initial Weight	Final Volume
Run #1	15.6 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-ETPH (C9-C36)	ND	17	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	77%		50-137%	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.3
4

Report of Analysis

Client Sample ID: GP-17		Date Sampled: 08/25/16
Lab Sample ID: MC47535-2		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 94.1
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	1.7	0.83	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ⁴
Barium	38.6	4.2	mg/kg	1	08/29/16	08/31/16 EAL	SW846 6010C ²	SW846 3050B ⁴
Cadmium	< 0.33	0.33	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ⁴
Chromium	9.9	0.83	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ⁴
Lead	49.7	0.83	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ⁴
Mercury	0.033	0.031	mg/kg	1	08/31/16	08/31/16 EAL	SW846 7471B ³	SW846 7471B ⁵
Selenium	< 0.83	0.83	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ⁴
Silver	< 0.42	0.42	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ⁴

- (1) Instrument QC Batch: MA19425
- (2) Instrument QC Batch: MA19428
- (3) Instrument QC Batch: MA19431
- (4) Prep QC Batch: MP26704
- (5) Prep QC Batch: MP26719

RL = Reporting Limit

4.3
4

Report of Analysis

Client Sample ID: GP-17 Lab Sample ID: MC47535-2A Matrix: SO - Soil Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT	Date Sampled: 08/25/16 Date Received: 08/26/16 Percent Solids: 94.1
---	--

Metals Analysis, SPLP Leachate SW846 1312

Analyte	Result	MCL	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 0.010	0.010		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Barium	< 0.50	0.50		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Cadmium	< 0.0040	0.0040		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Chromium	< 0.010	0.010		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Lead	0.015	0.010		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Mercury	< 0.00020	0.00020		mg/l	1	09/01/16	09/01/16 EAL	SW846 7470A ²	SW846 7470A ⁴
Selenium	< 0.025	0.025		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Silver	< 0.0050	0.0050		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³

- (1) Instrument QC Batch: MA19427
- (2) Instrument QC Batch: MA19433
- (3) Prep QC Batch: MP26716
- (4) Prep QC Batch: MP26722

RL = Reporting Limit
MCL = Maximum Contamination Level (not available)

4.4
4

Report of Analysis

Client Sample ID: GP-18		Date Sampled: 08/25/16
Lab Sample ID: MC47535-3		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 81.1
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M80618.D	1	08/30/16	KP	n/a	n/a	MSM2885
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	4.87 g	5.0 ml
Run #2		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone ^a	25.9	13	ug/kg	
107-13-1	Acrylonitrile	ND	32	ug/kg	
71-43-2	Benzene	ND	0.63	ug/kg	
108-86-1	Bromobenzene	ND	6.3	ug/kg	
75-27-4	Bromodichloromethane	ND	2.5	ug/kg	
75-25-2	Bromoform	ND	2.5	ug/kg	
74-83-9	Bromomethane	ND	2.5	ug/kg	
78-93-3	2-Butanone (MEK)	ND	25	ug/kg	
104-51-8	n-Butylbenzene	ND	6.3	ug/kg	
135-98-8	sec-Butylbenzene	ND	6.3	ug/kg	
98-06-6	tert-Butylbenzene	ND	6.3	ug/kg	
75-15-0	Carbon disulfide	ND	6.3	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.5	ug/kg	
108-90-7	Chlorobenzene	ND	2.5	ug/kg	
75-00-3	Chloroethane	ND	6.3	ug/kg	
67-66-3	Chloroform	ND	2.5	ug/kg	
74-87-3	Chloromethane	ND	6.3	ug/kg	
95-49-8	o-Chlorotoluene	ND	6.3	ug/kg	
106-43-4	p-Chlorotoluene	ND	6.3	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	6.3	ug/kg	
124-48-1	Dibromochloromethane	ND	2.5	ug/kg	
106-93-4	1,2-Dibromoethane	ND	2.5	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	2.5	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	2.5	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	2.5	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	2.5	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.5	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.5	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.5	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.5	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.5	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.5	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-18	Date Sampled:	08/25/16
Lab Sample ID:	MC47535-3	Date Received:	08/26/16
Matrix:	SO - Soil	Percent Solids:	81.1
Method:	SW846 8260C		
Project:	424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	6.3	ug/kg	
594-20-7	2,2-Dichloropropane	ND	6.3	ug/kg	
563-58-6	1,1-Dichloropropene	ND	6.3	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.5	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.5	ug/kg	
100-41-4	Ethylbenzene	ND	2.5	ug/kg	
76-13-1	Freon 113	ND	6.3	ug/kg	
87-68-3	Hexachlorobutadiene	ND	6.3	ug/kg	
591-78-6	2-Hexanone	ND	13	ug/kg	
98-82-8	Isopropylbenzene	ND	6.3	ug/kg	
99-87-6	p-Isopropyltoluene	ND	6.3	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.5	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	6.3	ug/kg	
74-95-3	Methylene bromide	ND	6.3	ug/kg	
75-09-2	Methylene chloride	ND	2.5	ug/kg	
91-20-3	Naphthalene	ND	6.3	ug/kg	
103-65-1	n-Propylbenzene	ND	6.3	ug/kg	
100-42-5	Styrene	ND	6.3	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	6.3	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.5	ug/kg	
127-18-4	Tetrachloroethene	ND	2.5	ug/kg	
109-99-9	Tetrahydrofuran	ND	13	ug/kg	
108-88-3	Toluene	ND	6.3	ug/kg	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	6.3	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	6.3	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	6.3	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.5	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.5	ug/kg	
79-01-6	Trichloroethene	ND	2.5	ug/kg	
75-69-4	Trichlorofluoromethane	ND	2.5	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	6.3	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	6.3	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	6.3	ug/kg	
75-01-4	Vinyl chloride	ND	2.5	ug/kg	
	m,p-Xylene	ND	2.5	ug/kg	
95-47-6	o-Xylene	ND	2.5	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	109%		65-141%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-18		Date Sampled: 08/25/16
Lab Sample ID: MC47535-3		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 81.1
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

4.5
4

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	103%		65-129%
460-00-4	4-Bromofluorobenzene	109%		63-137%

(a) Initial Calibration Verification outside of acceptance criteria. Sample result may be biased high.

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-18		
Lab Sample ID: MC47535-3		Date Sampled: 08/25/16
Matrix: SO - Soil		Date Received: 08/26/16
Method: SW846 8270D SW846 3546		Percent Solids: 81.1
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W29702.D	1	08/31/16	MR	08/28/16	OP48551	MSW1197
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	21.0 g	1.0 ml
Run #2		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
95-57-8	2-Chlorophenol	ND	290	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	590	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	590	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	590	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	590	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	590	ug/kg	
95-48-7	2-Methylphenol	ND	590	ug/kg	
106-44-5	4-Methylphenol	ND	590	ug/kg	
88-75-5	2-Nitrophenol	ND	590	ug/kg	
100-02-7	4-Nitrophenol	ND	590	ug/kg	
87-86-5	Pentachlorophenol	ND	590	ug/kg	
108-95-2	Phenol	ND	290	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	590	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	590	ug/kg	
83-32-9	Acenaphthene	ND	120	ug/kg	
208-96-8	Acenaphthylene	ND	120	ug/kg	
62-53-3	Aniline	ND	590	ug/kg	
120-12-7	Anthracene	ND	120	ug/kg	
56-55-3	Benzo(a)anthracene	ND	120	ug/kg	
50-32-8	Benzo(a)pyrene	ND	290	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	120	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	120	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	120	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	290	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	290	ug/kg	
91-58-7	2-Chloronaphthalene	ND	290	ug/kg	
106-47-8	4-Chloroaniline	ND	590	ug/kg	
86-74-8	Carbazole	ND	120	ug/kg	
218-01-9	Chrysene	ND	120	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	290	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	290	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	290	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-18		
Lab Sample ID: MC47535-3		Date Sampled: 08/25/16
Matrix: SO - Soil		Date Received: 08/26/16
Method: SW846 8270D SW846 3546		Percent Solids: 81.1
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	290	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	590	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	590	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	590	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	120	ug/kg	
132-64-9	Dibenzofuran	ND	120	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	290	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	290	ug/kg	
84-66-2	Diethyl phthalate	ND	290	ug/kg	
131-11-3	Dimethyl phthalate	ND	290	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	290	ug/kg	
206-44-0	Fluoranthene	149	120	ug/kg	
86-73-7	Fluorene	ND	120	ug/kg	
118-74-1	Hexachlorobenzene	ND	290	ug/kg	
87-68-3	Hexachlorobutadiene	ND	290	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	590	ug/kg	
67-72-1	Hexachloroethane	ND	290	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	290	ug/kg	
78-59-1	Isophorone	ND	290	ug/kg	
91-57-6	2-Methylnaphthalene	ND	120	ug/kg	
88-74-4	2-Nitroaniline	ND	590	ug/kg	
99-09-2	3-Nitroaniline	ND	590	ug/kg	
100-01-6	4-Nitroaniline	ND	590	ug/kg	
91-20-3	Naphthalene	ND	120	ug/kg	
98-95-3	Nitrobenzene	ND	290	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	290	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	290	ug/kg	
82-68-8	Pentachloronitrobenzene	ND	590	ug/kg	
85-01-8	Phenanthrene	ND	120	ug/kg	
129-00-0	Pyrene	149	120	ug/kg	
110-86-1	Pyridine	ND	590	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	590	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	290	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	70%		25-109%
4165-62-2	Phenol-d5	70%		29-113%
118-79-6	2,4,6-Tribromophenol	98%		20-141%
4165-60-0	Nitrobenzene-d5	70%		27-115%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-18		Date Sampled: 08/25/16
Lab Sample ID: MC47535-3		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 81.1
Method: SW846 8270D SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

4.5
4

ABN RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	74%		34-118%
1718-51-0	Terphenyl-d14	87%		42-139%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-18		Date Sampled: 08/25/16
Lab Sample ID: MC47535-3		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 81.1
Method: CT-ETPH 7/06 SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CF4617.D	1	08/31/16	MD	08/29/16	OP48569	GCF1300
Run #2							

	Initial Weight	Final Volume
Run #1	15.6 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-ETPH (C9-C36)	ND	20	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	82%		50-137%	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.5
4

Report of Analysis

Client Sample ID: GP-18		Date Sampled: 08/25/16
Lab Sample ID: MC47535-3		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 81.1
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	2.9	0.89	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³
Barium	66.4	4.4	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³
Cadmium	0.35	0.35	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³
Chromium	15.4	0.89	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³
Lead	68.1	0.89	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³
Mercury	< 0.036	0.036	mg/kg	1	08/31/16	08/31/16 EAL	SW846 7471B ²	SW846 7471B ⁴
Selenium	< 0.89	0.89	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³
Silver	< 0.44	0.44	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³

- (1) Instrument QC Batch: MA19425
- (2) Instrument QC Batch: MA19431
- (3) Prep QC Batch: MP26704
- (4) Prep QC Batch: MP26719

RL = Reporting Limit

4.5
4

Report of Analysis

Client Sample ID: GP-18 Lab Sample ID: MC47535-3A Matrix: SO - Soil Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT	Date Sampled: 08/25/16 Date Received: 08/26/16 Percent Solids: 81.1
---	--

Metals Analysis, SPLP Leachate SW846 1312

Analyte	Result	MCL	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 0.010	0.010		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Barium	< 0.50	0.50		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Cadmium	< 0.0040	0.0040		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Chromium	0.010	0.010		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Lead	0.042	0.010		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Mercury	< 0.00020	0.00020		mg/l	1	09/01/16	09/01/16 EAL	SW846 7470A ²	SW846 7470A ⁴
Selenium	< 0.025	0.025		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Silver	< 0.0050	0.0050		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³

- (1) Instrument QC Batch: MA19427
- (2) Instrument QC Batch: MA19433
- (3) Prep QC Batch: MP26716
- (4) Prep QC Batch: MP26722

RL = Reporting Limit
 MCL = Maximum Contamination Level (not available)

4.6
4

Report of Analysis

Client Sample ID: GP-19		
Lab Sample ID: MC47535-4		Date Sampled: 08/25/16
Matrix: SO - Soil		Date Received: 08/26/16
Method: SW846 8260C		Percent Solids: 93.3
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M80619.D	1	08/30/16	KP	n/a	n/a	MSM2885
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	5.68 g	5.0 ml
Run #2		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone ^a	33.0	9.4	ug/kg	
107-13-1	Acrylonitrile	ND	24	ug/kg	
71-43-2	Benzene	3.1	0.47	ug/kg	
108-86-1	Bromobenzene	ND	4.7	ug/kg	
75-27-4	Bromodichloromethane	ND	1.9	ug/kg	
75-25-2	Bromoform	ND	1.9	ug/kg	
74-83-9	Bromomethane	ND	1.9	ug/kg	
78-93-3	2-Butanone (MEK)	ND	19	ug/kg	
104-51-8	n-Butylbenzene	ND	4.7	ug/kg	
135-98-8	sec-Butylbenzene	ND	4.7	ug/kg	
98-06-6	tert-Butylbenzene	ND	4.7	ug/kg	
75-15-0	Carbon disulfide	ND	4.7	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.9	ug/kg	
108-90-7	Chlorobenzene	ND	1.9	ug/kg	
75-00-3	Chloroethane	ND	4.7	ug/kg	
67-66-3	Chloroform	ND	1.9	ug/kg	
74-87-3	Chloromethane	ND	4.7	ug/kg	
95-49-8	o-Chlorotoluene	ND	4.7	ug/kg	
106-43-4	p-Chlorotoluene	ND	4.7	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	4.7	ug/kg	
124-48-1	Dibromochloromethane	ND	1.9	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.9	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.9	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.9	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.9	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	1.9	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.9	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.9	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.9	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.9	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.9	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.9	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-19		Date Sampled: 08/25/16
Lab Sample ID: MC47535-4		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 93.3
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	4.7	ug/kg	
594-20-7	2,2-Dichloropropane	ND	4.7	ug/kg	
563-58-6	1,1-Dichloropropene	ND	4.7	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.9	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.9	ug/kg	
100-41-4	Ethylbenzene	ND	1.9	ug/kg	
76-13-1	Freon 113	ND	4.7	ug/kg	
87-68-3	Hexachlorobutadiene	ND	4.7	ug/kg	
591-78-6	2-Hexanone	ND	9.4	ug/kg	
98-82-8	Isopropylbenzene	ND	4.7	ug/kg	
99-87-6	p-Isopropyltoluene	ND	4.7	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.9	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.7	ug/kg	
74-95-3	Methylene bromide	ND	4.7	ug/kg	
75-09-2	Methylene chloride	ND	1.9	ug/kg	
91-20-3	Naphthalene	ND	4.7	ug/kg	
103-65-1	n-Propylbenzene	ND	4.7	ug/kg	
100-42-5	Styrene	ND	4.7	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	4.7	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.9	ug/kg	
127-18-4	Tetrachloroethene	ND	1.9	ug/kg	
109-99-9	Tetrahydrofuran	ND	9.4	ug/kg	
108-88-3	Toluene	ND	4.7	ug/kg	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	4.7	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	4.7	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	4.7	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	1.9	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	1.9	ug/kg	
79-01-6	Trichloroethene	ND	1.9	ug/kg	
75-69-4	Trichlorofluoromethane	ND	1.9	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	4.7	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	4.7	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	4.7	ug/kg	
75-01-4	Vinyl chloride	ND	1.9	ug/kg	
	m,p-Xylene	ND	1.9	ug/kg	
95-47-6	o-Xylene	ND	1.9	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	111%		65-141%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-19		Date Sampled: 08/25/16
Lab Sample ID: MC47535-4		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 93.3
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	101%		65-129%
460-00-4	4-Bromofluorobenzene	107%		63-137%

(a) Initial Calibration Verification outside of acceptance criteria. Sample result may be biased high.

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-19		
Lab Sample ID: MC47535-4		Date Sampled: 08/25/16
Matrix: SO - Soil		Date Received: 08/26/16
Method: SW846 8270D SW846 3546		Percent Solids: 93.3
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W29703.D	1	08/31/16	MR	08/28/16	OP48551	MSW1197
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.5 g	1.0 ml
Run #2		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
95-57-8	2-Chlorophenol	ND	260	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	520	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	520	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	520	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	520	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	520	ug/kg	
95-48-7	2-Methylphenol	ND	520	ug/kg	
106-44-5	4-Methylphenol	ND	520	ug/kg	
88-75-5	2-Nitrophenol	ND	520	ug/kg	
100-02-7	4-Nitrophenol	ND	520	ug/kg	
87-86-5	Pentachlorophenol	ND	520	ug/kg	
108-95-2	Phenol	ND	260	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	520	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	520	ug/kg	
83-32-9	Acenaphthene	ND	100	ug/kg	
208-96-8	Acenaphthylene	ND	100	ug/kg	
62-53-3	Aniline	ND	520	ug/kg	
120-12-7	Anthracene	ND	100	ug/kg	
56-55-3	Benzo(a)anthracene	ND	100	ug/kg	
50-32-8	Benzo(a)pyrene	ND	260	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	100	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	100	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	100	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	260	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	260	ug/kg	
91-58-7	2-Chloronaphthalene	ND	260	ug/kg	
106-47-8	4-Chloroaniline	ND	520	ug/kg	
86-74-8	Carbazole	ND	100	ug/kg	
218-01-9	Chrysene	ND	100	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	260	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	260	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	260	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-19		Date Sampled: 08/25/16
Lab Sample ID: MC47535-4		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 93.3
Method: SW846 8270D SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	260	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	520	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	520	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	520	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	100	ug/kg	
132-64-9	Dibenzofuran	ND	100	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	260	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	260	ug/kg	
84-66-2	Diethyl phthalate	ND	260	ug/kg	
131-11-3	Dimethyl phthalate	ND	260	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	260	ug/kg	
206-44-0	Fluoranthene	ND	100	ug/kg	
86-73-7	Fluorene	ND	100	ug/kg	
118-74-1	Hexachlorobenzene	ND	260	ug/kg	
87-68-3	Hexachlorobutadiene	ND	260	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	520	ug/kg	
67-72-1	Hexachloroethane	ND	260	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	260	ug/kg	
78-59-1	Isophorone	ND	260	ug/kg	
91-57-6	2-Methylnaphthalene	ND	100	ug/kg	
88-74-4	2-Nitroaniline	ND	520	ug/kg	
99-09-2	3-Nitroaniline	ND	520	ug/kg	
100-01-6	4-Nitroaniline	ND	520	ug/kg	
91-20-3	Naphthalene	ND	100	ug/kg	
98-95-3	Nitrobenzene	ND	260	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	260	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	260	ug/kg	
82-68-8	Pentachloronitrobenzene	ND	520	ug/kg	
85-01-8	Phenanthrene	ND	100	ug/kg	
129-00-0	Pyrene	ND	100	ug/kg	
110-86-1	Pyridine	ND	520	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	520	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	260	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	73%		25-109%
4165-62-2	Phenol-d5	73%		29-113%
118-79-6	2,4,6-Tribromophenol	79%		20-141%
4165-60-0	Nitrobenzene-d5	72%		27-115%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.7
4

Report of Analysis

Client Sample ID: GP-19		Date Sampled: 08/25/16
Lab Sample ID: MC47535-4		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 93.3
Method: SW846 8270D SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

ABN RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	75%		34-118%
1718-51-0	Terphenyl-d14	88%		42-139%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-19		Date Sampled: 08/25/16
Lab Sample ID: MC47535-4		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 93.3
Method: CT-ETPH 7/06 SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CF4612.D	1	08/31/16	MD	08/29/16	OP48569	GCF1300
Run #2							

	Initial Weight	Final Volume
Run #1	15.7 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-ETPH (C9-C36)	ND	17	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	83%		50-137%	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.7
4

Report of Analysis

Client Sample ID: GP-19		Date Sampled: 08/25/16
Lab Sample ID: MC47535-4		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 93.3
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	1.5	0.84	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³
Barium	25.0	4.2	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³
Cadmium	< 0.33	0.33	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³
Chromium	9.1	0.84	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³
Lead	21.1	0.84	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³
Mercury	< 0.032	0.032	mg/kg	1	08/31/16	08/31/16 EAL	SW846 7471B ²	SW846 7471B ⁴
Selenium	< 0.84	0.84	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³
Silver	< 0.42	0.42	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³

- (1) Instrument QC Batch: MA19425
- (2) Instrument QC Batch: MA19431
- (3) Prep QC Batch: MP26704
- (4) Prep QC Batch: MP26719

RL = Reporting Limit

4.7
4

Report of Analysis

Client Sample ID: GP-19		Date Sampled: 08/25/16
Lab Sample ID: MC47535-4A		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 93.3
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Metals Analysis, SPLP Leachate SW846 1312

Analyte	Result	MCL	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 0.010	0.010		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Barium	< 0.50	0.50		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Cadmium	< 0.0040	0.0040		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Chromium	< 0.010	0.010		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Lead	< 0.010	0.010		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Mercury	< 0.00020	0.00020		mg/l	1	09/01/16	09/01/16 EAL	SW846 7470A ²	SW846 7470A ⁴
Selenium	< 0.025	0.025		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Silver	< 0.0050	0.0050		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³

- (1) Instrument QC Batch: MA19427
- (2) Instrument QC Batch: MA19433
- (3) Prep QC Batch: MP26716
- (4) Prep QC Batch: MP26722

RL = Reporting Limit
MCL = Maximum Contamination Level (not available)

4.8
4

Report of Analysis

Client Sample ID: GP-20		Date Sampled: 08/25/16
Lab Sample ID: MC47535-5		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 89.4
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M80620.D	1	08/30/16	KP	n/a	n/a	MSM2885
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	5.94 g	5.0 ml
Run #2		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone ^a	29.7	9.4	ug/kg	
107-13-1	Acrylonitrile	ND	24	ug/kg	
71-43-2	Benzene	ND	0.47	ug/kg	
108-86-1	Bromobenzene	ND	4.7	ug/kg	
75-27-4	Bromodichloromethane	ND	1.9	ug/kg	
75-25-2	Bromoform	ND	1.9	ug/kg	
74-83-9	Bromomethane	ND	1.9	ug/kg	
78-93-3	2-Butanone (MEK)	ND	19	ug/kg	
104-51-8	n-Butylbenzene	ND	4.7	ug/kg	
135-98-8	sec-Butylbenzene	ND	4.7	ug/kg	
98-06-6	tert-Butylbenzene	ND	4.7	ug/kg	
75-15-0	Carbon disulfide	ND	4.7	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.9	ug/kg	
108-90-7	Chlorobenzene	ND	1.9	ug/kg	
75-00-3	Chloroethane	ND	4.7	ug/kg	
67-66-3	Chloroform	ND	1.9	ug/kg	
74-87-3	Chloromethane	ND	4.7	ug/kg	
95-49-8	o-Chlorotoluene	ND	4.7	ug/kg	
106-43-4	p-Chlorotoluene	ND	4.7	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	4.7	ug/kg	
124-48-1	Dibromochloromethane	ND	1.9	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.9	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.9	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.9	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.9	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	1.9	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.9	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.9	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.9	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.9	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.9	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.9	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-20	Date Sampled:	08/25/16
Lab Sample ID:	MC47535-5	Date Received:	08/26/16
Matrix:	SO - Soil	Percent Solids:	89.4
Method:	SW846 8260C		
Project:	424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	4.7	ug/kg	
594-20-7	2,2-Dichloropropane	ND	4.7	ug/kg	
563-58-6	1,1-Dichloropropene	ND	4.7	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.9	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.9	ug/kg	
100-41-4	Ethylbenzene	ND	1.9	ug/kg	
76-13-1	Freon 113	ND	4.7	ug/kg	
87-68-3	Hexachlorobutadiene	ND	4.7	ug/kg	
591-78-6	2-Hexanone	ND	9.4	ug/kg	
98-82-8	Isopropylbenzene	ND	4.7	ug/kg	
99-87-6	p-Isopropyltoluene	ND	4.7	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.9	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.7	ug/kg	
74-95-3	Methylene bromide	ND	4.7	ug/kg	
75-09-2	Methylene chloride	ND	1.9	ug/kg	
91-20-3	Naphthalene	ND	4.7	ug/kg	
103-65-1	n-Propylbenzene	ND	4.7	ug/kg	
100-42-5	Styrene	ND	4.7	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	4.7	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.9	ug/kg	
127-18-4	Tetrachloroethene	ND	1.9	ug/kg	
109-99-9	Tetrahydrofuran	ND	9.4	ug/kg	
108-88-3	Toluene	ND	4.7	ug/kg	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	4.7	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	4.7	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	4.7	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	1.9	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	1.9	ug/kg	
79-01-6	Trichloroethene	ND	1.9	ug/kg	
75-69-4	Trichlorofluoromethane	ND	1.9	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	4.7	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	4.7	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	4.7	ug/kg	
75-01-4	Vinyl chloride	ND	1.9	ug/kg	
	m,p-Xylene	ND	1.9	ug/kg	
95-47-6	o-Xylene	ND	1.9	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	110%		65-141%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-20		Date Sampled: 08/25/16
Lab Sample ID: MC47535-5		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 89.4
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	101%		65-129%
460-00-4	4-Bromofluorobenzene	109%		63-137%

(a) Initial Calibration Verification outside of acceptance criteria. Sample result may be biased high.

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-20		Date Sampled: 08/25/16
Lab Sample ID: MC47535-5		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 89.4
Method: SW846 8270D SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W29704.D	1	08/31/16	MR	08/28/16	OP48551	MSW1197
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.1 g	1.0 ml
Run #2		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
95-57-8	2-Chlorophenol	ND	280	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	560	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	560	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	560	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	560	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	560	ug/kg	
95-48-7	2-Methylphenol	ND	560	ug/kg	
106-44-5	4-Methylphenol	ND	560	ug/kg	
88-75-5	2-Nitrophenol	ND	560	ug/kg	
100-02-7	4-Nitrophenol	ND	560	ug/kg	
87-86-5	Pentachlorophenol	ND	560	ug/kg	
108-95-2	Phenol	ND	280	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	560	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	560	ug/kg	
83-32-9	Acenaphthene	ND	110	ug/kg	
208-96-8	Acenaphthylene	ND	110	ug/kg	
62-53-3	Aniline	ND	560	ug/kg	
120-12-7	Anthracene	ND	110	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	ug/kg	
50-32-8	Benzo(a)pyrene	ND	280	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	280	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	280	ug/kg	
91-58-7	2-Chloronaphthalene	ND	280	ug/kg	
106-47-8	4-Chloroaniline	ND	560	ug/kg	
86-74-8	Carbazole	ND	110	ug/kg	
218-01-9	Chrysene	ND	110	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	280	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	280	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	280	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-20	Date Sampled:	08/25/16
Lab Sample ID:	MC47535-5	Date Received:	08/26/16
Matrix:	SO - Soil	Percent Solids:	89.4
Method:	SW846 8270D SW846 3546		
Project:	424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	280	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	560	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	560	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	560	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	ug/kg	
132-64-9	Dibenzofuran	ND	110	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	280	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	280	ug/kg	
84-66-2	Diethyl phthalate	ND	280	ug/kg	
131-11-3	Dimethyl phthalate	ND	280	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	280	ug/kg	
206-44-0	Fluoranthene	ND	110	ug/kg	
86-73-7	Fluorene	ND	110	ug/kg	
118-74-1	Hexachlorobenzene	ND	280	ug/kg	
87-68-3	Hexachlorobutadiene	ND	280	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	560	ug/kg	
67-72-1	Hexachloroethane	ND	280	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	280	ug/kg	
78-59-1	Isophorone	ND	280	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	ug/kg	
88-74-4	2-Nitroaniline	ND	560	ug/kg	
99-09-2	3-Nitroaniline	ND	560	ug/kg	
100-01-6	4-Nitroaniline	ND	560	ug/kg	
91-20-3	Naphthalene	ND	110	ug/kg	
98-95-3	Nitrobenzene	ND	280	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	280	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	280	ug/kg	
82-68-8	Pentachloronitrobenzene	ND	560	ug/kg	
85-01-8	Phenanthrene	ND	110	ug/kg	
129-00-0	Pyrene	ND	110	ug/kg	
110-86-1	Pyridine	ND	560	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	560	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	280	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	72%		25-109%
4165-62-2	Phenol-d5	75%		29-113%
118-79-6	2,4,6-Tribromophenol	97%		20-141%
4165-60-0	Nitrobenzene-d5	73%		27-115%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-20		Date Sampled: 08/25/16
Lab Sample ID: MC47535-5		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 89.4
Method: SW846 8270D SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

ABN RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	76%		34-118%
1718-51-0	Terphenyl-d14	88%		42-139%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.9
4

Report of Analysis

Client Sample ID: GP-20		Date Sampled: 08/25/16
Lab Sample ID: MC47535-5		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 89.4
Method: CT-ETPH 7/06 SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CF4622.D	1	08/31/16	MD	08/29/16	OP48569	GCF1300
Run #2							

	Initial Weight	Final Volume
Run #1	15.6 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-ETPH (C9-C36)	37.3	18	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	74%		50-137%	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.9
4

Report of Analysis

Client Sample ID: GP-20		Date Sampled: 08/25/16
Lab Sample ID: MC47535-5		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 89.4
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	2.4	0.88	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³
Barium	33.7	4.4	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³
Cadmium	< 0.35	0.35	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³
Chromium	9.1	0.88	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³
Lead	36.8	0.88	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³
Mercury	< 0.035	0.035	mg/kg	1	08/31/16	08/31/16 EAL	SW846 7471B ²	SW846 7471B ⁴
Selenium	< 0.88	0.88	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³
Silver	< 0.44	0.44	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³

- (1) Instrument QC Batch: MA19425
- (2) Instrument QC Batch: MA19431
- (3) Prep QC Batch: MP26704
- (4) Prep QC Batch: MP26719

RL = Reporting Limit

4.9
4

Report of Analysis

Client Sample ID: GP-20		Date Sampled: 08/25/16
Lab Sample ID: MC47535-5A		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 89.4
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

4.10
4

Metals Analysis, SPLP Leachate SW846 1312

Analyte	Result	MCL	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 0.010	0.010		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Barium	< 0.50	0.50		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Cadmium	< 0.0040	0.0040		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Chromium	< 0.010	0.010		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Lead	0.012	0.010		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Mercury	< 0.00020	0.00020		mg/l	1	09/01/16	09/01/16 EAL	SW846 7470A ²	SW846 7470A ⁴
Selenium	< 0.025	0.025		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Silver	< 0.0050	0.0050		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³

- (1) Instrument QC Batch: MA19427
- (2) Instrument QC Batch: MA19433
- (3) Prep QC Batch: MP26716
- (4) Prep QC Batch: MP26722

RL = Reporting Limit
MCL = Maximum Contamination Level (not available)

Report of Analysis

Client Sample ID: GP-8		Date Sampled: 08/25/16
Lab Sample ID: MC47535-6		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 96.5
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M80621.D	1	08/30/16	KP	n/a	n/a	MSM2885
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	4.49 g	5.0 ml
Run #2		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	12	ug/kg	
107-13-1	Acrylonitrile	ND	29	ug/kg	
71-43-2	Benzene	ND	0.58	ug/kg	
108-86-1	Bromobenzene	ND	5.8	ug/kg	
75-27-4	Bromodichloromethane	ND	2.3	ug/kg	
75-25-2	Bromoform	ND	2.3	ug/kg	
74-83-9	Bromomethane	ND	2.3	ug/kg	
78-93-3	2-Butanone (MEK)	ND	23	ug/kg	
104-51-8	n-Butylbenzene	ND	5.8	ug/kg	
135-98-8	sec-Butylbenzene	ND	5.8	ug/kg	
98-06-6	tert-Butylbenzene	ND	5.8	ug/kg	
75-15-0	Carbon disulfide	ND	5.8	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.3	ug/kg	
108-90-7	Chlorobenzene	ND	2.3	ug/kg	
75-00-3	Chloroethane	ND	5.8	ug/kg	
67-66-3	Chloroform	ND	2.3	ug/kg	
74-87-3	Chloromethane	ND	5.8	ug/kg	
95-49-8	o-Chlorotoluene	ND	5.8	ug/kg	
106-43-4	p-Chlorotoluene	ND	5.8	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.8	ug/kg	
124-48-1	Dibromochloromethane	ND	2.3	ug/kg	
106-93-4	1,2-Dibromoethane	ND	2.3	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	2.3	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	2.3	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	2.3	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	2.3	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.3	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.3	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.3	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.3	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.3	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.3	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-8		Date Sampled: 08/25/16
Lab Sample ID: MC47535-6		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 96.5
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.8	ug/kg	
594-20-7	2,2-Dichloropropane	ND	5.8	ug/kg	
563-58-6	1,1-Dichloropropene	ND	5.8	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.3	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.3	ug/kg	
100-41-4	Ethylbenzene	ND	2.3	ug/kg	
76-13-1	Freon 113	ND	5.8	ug/kg	
87-68-3	Hexachlorobutadiene	ND	5.8	ug/kg	
591-78-6	2-Hexanone	ND	12	ug/kg	
98-82-8	Isopropylbenzene	ND	5.8	ug/kg	
99-87-6	p-Isopropyltoluene	ND	5.8	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.3	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.8	ug/kg	
74-95-3	Methylene bromide	ND	5.8	ug/kg	
75-09-2	Methylene chloride	ND	2.3	ug/kg	
91-20-3	Naphthalene	ND	5.8	ug/kg	
103-65-1	n-Propylbenzene	ND	5.8	ug/kg	
100-42-5	Styrene	ND	5.8	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.8	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.3	ug/kg	
127-18-4	Tetrachloroethene	ND	2.3	ug/kg	
109-99-9	Tetrahydrofuran	ND	12	ug/kg	
108-88-3	Toluene	ND	5.8	ug/kg	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.8	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.8	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.8	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.3	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.3	ug/kg	
79-01-6	Trichloroethene	ND	2.3	ug/kg	
75-69-4	Trichlorofluoromethane	ND	2.3	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	5.8	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	5.8	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	5.8	ug/kg	
75-01-4	Vinyl chloride	ND	2.3	ug/kg	
	m,p-Xylene	ND	2.3	ug/kg	
95-47-6	o-Xylene	ND	2.3	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	111%		65-141%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-8		Date Sampled: 08/25/16
Lab Sample ID: MC47535-6		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 96.5
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

4.11
4

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	102%		65-129%
460-00-4	4-Bromofluorobenzene	108%		63-137%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-8		Date Sampled: 08/25/16
Lab Sample ID: MC47535-6		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 96.5
Method: SW846 8270D SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W29705.D	1	08/31/16	MR	08/28/16	OP48551	MSW1197
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.5 g	1.0 ml
Run #2		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
95-57-8	2-Chlorophenol	ND	250	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	510	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	510	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	510	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	510	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	510	ug/kg	
95-48-7	2-Methylphenol	ND	510	ug/kg	
106-44-5	4-Methylphenol	ND	510	ug/kg	
88-75-5	2-Nitrophenol	ND	510	ug/kg	
100-02-7	4-Nitrophenol	ND	510	ug/kg	
87-86-5	Pentachlorophenol	ND	510	ug/kg	
108-95-2	Phenol	ND	250	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	510	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	510	ug/kg	
83-32-9	Acenaphthene	ND	100	ug/kg	
208-96-8	Acenaphthylene	ND	100	ug/kg	
62-53-3	Aniline	ND	510	ug/kg	
120-12-7	Anthracene	ND	100	ug/kg	
56-55-3	Benzo(a)anthracene	ND	100	ug/kg	
50-32-8	Benzo(a)pyrene	ND	250	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	100	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	100	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	100	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	250	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	250	ug/kg	
91-58-7	2-Chloronaphthalene	ND	250	ug/kg	
106-47-8	4-Chloroaniline	ND	510	ug/kg	
86-74-8	Carbazole	ND	100	ug/kg	
218-01-9	Chrysene	ND	100	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	250	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	250	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	250	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-8	Date Sampled:	08/25/16
Lab Sample ID:	MC47535-6	Date Received:	08/26/16
Matrix:	SO - Soil	Percent Solids:	96.5
Method:	SW846 8270D SW846 3546		
Project:	424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	250	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	510	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	510	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	510	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	100	ug/kg	
132-64-9	Dibenzofuran	ND	100	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	250	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	250	ug/kg	
84-66-2	Diethyl phthalate	ND	250	ug/kg	
131-11-3	Dimethyl phthalate	ND	250	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	250	ug/kg	
206-44-0	Fluoranthene	ND	100	ug/kg	
86-73-7	Fluorene	ND	100	ug/kg	
118-74-1	Hexachlorobenzene	ND	250	ug/kg	
87-68-3	Hexachlorobutadiene	ND	250	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	510	ug/kg	
67-72-1	Hexachloroethane	ND	250	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	250	ug/kg	
78-59-1	Isophorone	ND	250	ug/kg	
91-57-6	2-Methylnaphthalene	ND	100	ug/kg	
88-74-4	2-Nitroaniline	ND	510	ug/kg	
99-09-2	3-Nitroaniline	ND	510	ug/kg	
100-01-6	4-Nitroaniline	ND	510	ug/kg	
91-20-3	Naphthalene	ND	100	ug/kg	
98-95-3	Nitrobenzene	ND	250	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	250	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	250	ug/kg	
82-68-8	Pentachloronitrobenzene	ND	510	ug/kg	
85-01-8	Phenanthrene	ND	100	ug/kg	
129-00-0	Pyrene	ND	100	ug/kg	
110-86-1	Pyridine	ND	510	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	510	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	250	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	74%		25-109%
4165-62-2	Phenol-d5	79%		29-113%
118-79-6	2,4,6-Tribromophenol	97%		20-141%
4165-60-0	Nitrobenzene-d5	74%		27-115%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-8		Date Sampled: 08/25/16
Lab Sample ID: MC47535-6		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 96.5
Method: SW846 8270D SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

4.11
4

ABN RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	74%		34-118%
1718-51-0	Terphenyl-d14	86%		42-139%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-8		Date Sampled: 08/25/16
Lab Sample ID: MC47535-6		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 96.5
Method: CT-ETPH 7/06 SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CF4613.D	1	08/31/16	MD	08/29/16	OP48569	GCF1300
Run #2							

	Initial Weight	Final Volume
Run #1	15.2 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-ETPH (C9-C36)	ND	17	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	75%		50-137%	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.11 4

Report of Analysis

Client Sample ID: GP-8		Date Sampled: 08/25/16
Lab Sample ID: MC47535-6		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 96.5
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	1.2	0.85	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³
Barium	14.2	4.2	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³
Cadmium	< 0.34	0.34	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³
Chromium	6.4	0.85	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³
Lead	3.9	0.85	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³
Mercury	< 0.032	0.032	mg/kg	1	08/31/16	08/31/16 EAL	SW846 7471B ²	SW846 7471B ⁴
Selenium	< 0.85	0.85	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³
Silver	< 0.42	0.42	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³

- (1) Instrument QC Batch: MA19425
- (2) Instrument QC Batch: MA19431
- (3) Prep QC Batch: MP26704
- (4) Prep QC Batch: MP26719

RL = Reporting Limit

4.11
4

Report of Analysis

Client Sample ID: GP-8		Date Sampled: 08/25/16
Lab Sample ID: MC47535-6A		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 96.5
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Metals Analysis, SPLP Leachate SW846 1312

Analyte	Result	MCL	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 0.010	0.010		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Barium	< 0.50	0.50		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Cadmium	< 0.0040	0.0040		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Chromium	< 0.010	0.010		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Lead	< 0.010	0.010		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Mercury	< 0.00020	0.00020		mg/l	1	09/01/16	09/01/16 EAL	SW846 7470A ²	SW846 7470A ⁴
Selenium	< 0.025	0.025		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Silver	< 0.0050	0.0050		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³

- (1) Instrument QC Batch: MA19427
- (2) Instrument QC Batch: MA19433
- (3) Prep QC Batch: MP26716
- (4) Prep QC Batch: MP26722

RL = Reporting Limit
MCL = Maximum Contamination Level (not available)

4.12
4

Report of Analysis

Client Sample ID: GP-10		Date Sampled: 08/25/16
Lab Sample ID: MC47535-7		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 96.9
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M80622.D	1	08/30/16	KP	n/a	n/a	MSM2885

Run #1	Initial Weight	Final Volume
Run #2	5.29 g	5.0 ml

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	9.8	ug/kg	
107-13-1	Acrylonitrile	ND	24	ug/kg	
71-43-2	Benzene	ND	0.49	ug/kg	
108-86-1	Bromobenzene	ND	4.9	ug/kg	
75-27-4	Bromodichloromethane	ND	2.0	ug/kg	
75-25-2	Bromoform	ND	2.0	ug/kg	
74-83-9	Bromomethane	ND	2.0	ug/kg	
78-93-3	2-Butanone (MEK)	ND	20	ug/kg	
104-51-8	n-Butylbenzene	ND	4.9	ug/kg	
135-98-8	sec-Butylbenzene	ND	4.9	ug/kg	
98-06-6	tert-Butylbenzene	ND	4.9	ug/kg	
75-15-0	Carbon disulfide	ND	4.9	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.0	ug/kg	
108-90-7	Chlorobenzene	ND	2.0	ug/kg	
75-00-3	Chloroethane	ND	4.9	ug/kg	
67-66-3	Chloroform	ND	2.0	ug/kg	
74-87-3	Chloromethane	ND	4.9	ug/kg	
95-49-8	o-Chlorotoluene	ND	4.9	ug/kg	
106-43-4	p-Chlorotoluene	ND	4.9	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	4.9	ug/kg	
124-48-1	Dibromochloromethane	ND	2.0	ug/kg	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	2.0	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	2.0	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	2.0	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.0	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.0	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.0	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.0	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.0	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-10	Date Sampled:	08/25/16
Lab Sample ID:	MC47535-7	Date Received:	08/26/16
Matrix:	SO - Soil	Percent Solids:	96.9
Method:	SW846 8260C		
Project:	424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	4.9	ug/kg	
594-20-7	2,2-Dichloropropane	ND	4.9	ug/kg	
563-58-6	1,1-Dichloropropene	ND	4.9	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	ug/kg	
100-41-4	Ethylbenzene	ND	2.0	ug/kg	
76-13-1	Freon 113	ND	4.9	ug/kg	
87-68-3	Hexachlorobutadiene	ND	4.9	ug/kg	
591-78-6	2-Hexanone	ND	9.8	ug/kg	
98-82-8	Isopropylbenzene	ND	4.9	ug/kg	
99-87-6	p-Isopropyltoluene	ND	4.9	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.9	ug/kg	
74-95-3	Methylene bromide	ND	4.9	ug/kg	
75-09-2	Methylene chloride	ND	2.0	ug/kg	
91-20-3	Naphthalene	ND	4.9	ug/kg	
103-65-1	n-Propylbenzene	ND	4.9	ug/kg	
100-42-5	Styrene	ND	4.9	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	4.9	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	ug/kg	
127-18-4	Tetrachloroethene	ND	2.0	ug/kg	
109-99-9	Tetrahydrofuran	ND	9.8	ug/kg	
108-88-3	Toluene	ND	4.9	ug/kg	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	4.9	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	4.9	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	4.9	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.0	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.0	ug/kg	
79-01-6	Trichloroethene	2.3	2.0	ug/kg	
75-69-4	Trichlorofluoromethane	ND	2.0	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	4.9	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	4.9	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	4.9	ug/kg	
75-01-4	Vinyl chloride	ND	2.0	ug/kg	
	m,p-Xylene	ND	2.0	ug/kg	
95-47-6	o-Xylene	ND	2.0	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	113%		65-141%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-10		Date Sampled: 08/25/16
Lab Sample ID: MC47535-7		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 96.9
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

4.13
4

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	103%		65-129%
460-00-4	4-Bromofluorobenzene	109%		63-137%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-10		Date Sampled: 08/25/16
Lab Sample ID: MC47535-7		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 96.9
Method: SW846 8270D SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W29706.D	1	08/31/16	MR	08/28/16	OP48551	MSW1197
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.5 g	1.0 ml
Run #2		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
95-57-8	2-Chlorophenol	ND	250	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	500	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	500	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	500	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	500	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	500	ug/kg	
95-48-7	2-Methylphenol	ND	500	ug/kg	
106-44-5	4-Methylphenol	ND	500	ug/kg	
88-75-5	2-Nitrophenol	ND	500	ug/kg	
100-02-7	4-Nitrophenol	ND	500	ug/kg	
87-86-5	Pentachlorophenol	ND	500	ug/kg	
108-95-2	Phenol	ND	250	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	500	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	500	ug/kg	
83-32-9	Acenaphthene	ND	100	ug/kg	
208-96-8	Acenaphthylene	ND	100	ug/kg	
62-53-3	Aniline	ND	500	ug/kg	
120-12-7	Anthracene	ND	100	ug/kg	
56-55-3	Benzo(a)anthracene	ND	100	ug/kg	
50-32-8	Benzo(a)pyrene	ND	250	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	100	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	100	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	100	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	250	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	250	ug/kg	
91-58-7	2-Chloronaphthalene	ND	250	ug/kg	
106-47-8	4-Chloroaniline	ND	500	ug/kg	
86-74-8	Carbazole	ND	100	ug/kg	
218-01-9	Chrysene	ND	100	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	250	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	250	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	250	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-10		Date Sampled: 08/25/16
Lab Sample ID: MC47535-7		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 96.9
Method: SW846 8270D SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	250	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	500	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	500	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	500	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	100	ug/kg	
132-64-9	Dibenzofuran	ND	100	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	250	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	250	ug/kg	
84-66-2	Diethyl phthalate	ND	250	ug/kg	
131-11-3	Dimethyl phthalate	ND	250	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	250	ug/kg	
206-44-0	Fluoranthene	ND	100	ug/kg	
86-73-7	Fluorene	ND	100	ug/kg	
118-74-1	Hexachlorobenzene	ND	250	ug/kg	
87-68-3	Hexachlorobutadiene	ND	250	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	500	ug/kg	
67-72-1	Hexachloroethane	ND	250	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	250	ug/kg	
78-59-1	Isophorone	ND	250	ug/kg	
91-57-6	2-Methylnaphthalene	ND	100	ug/kg	
88-74-4	2-Nitroaniline	ND	500	ug/kg	
99-09-2	3-Nitroaniline	ND	500	ug/kg	
100-01-6	4-Nitroaniline	ND	500	ug/kg	
91-20-3	Naphthalene	ND	100	ug/kg	
98-95-3	Nitrobenzene	ND	250	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	250	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	250	ug/kg	
82-68-8	Pentachloronitrobenzene	ND	500	ug/kg	
85-01-8	Phenanthrene	ND	100	ug/kg	
129-00-0	Pyrene	ND	100	ug/kg	
110-86-1	Pyridine	ND	500	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	500	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	250	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	69%		25-109%
4165-62-2	Phenol-d5	72%		29-113%
118-79-6	2,4,6-Tribromophenol	93%		20-141%
4165-60-0	Nitrobenzene-d5	75%		27-115%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-10		Date Sampled: 08/25/16
Lab Sample ID: MC47535-7		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 96.9
Method: SW846 8270D SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

4.13
4

ABN RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	70%		34-118%
1718-51-0	Terphenyl-d14	83%		42-139%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-10	Date Sampled: 08/25/16
Lab Sample ID: MC47535-7	Date Received: 08/26/16
Matrix: SO - Soil	Percent Solids: 96.9
Method: CT-ETPH 7/06 SW846 3546	
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CF4620.D	1	08/31/16	MD	08/29/16	OP48569	GCF1300
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-ETPH (C9-C36)	56.9	17	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	74%		50-137%	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.13
4

Report of Analysis

Client Sample ID: GP-10		Date Sampled: 08/25/16
Lab Sample ID: MC47535-7		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 96.9
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 0.82	0.82	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³
Barium	14.4	4.1	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³
Cadmium	< 0.33	0.33	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³
Chromium	4.0	0.82	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³
Lead	2.8	0.82	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³
Mercury	< 0.032	0.032	mg/kg	1	08/31/16	08/31/16 EAL	SW846 7471B ²	SW846 7471B ⁴
Selenium	< 0.82	0.82	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³
Silver	< 0.41	0.41	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³

- (1) Instrument QC Batch: MA19425
- (2) Instrument QC Batch: MA19431
- (3) Prep QC Batch: MP26704
- (4) Prep QC Batch: MP26719

RL = Reporting Limit

4.13
4

Report of Analysis

Client Sample ID: GP-10 Lab Sample ID: MC47535-7A Matrix: SO - Soil Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT	Date Sampled: 08/25/16 Date Received: 08/26/16 Percent Solids: 96.9
---	--

4.14
4

Metals Analysis, SPLP Leachate SW846 1312

Analyte	Result	MCL	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 0.010	0.010		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Barium	< 0.50	0.50		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Cadmium	< 0.0040	0.0040		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Chromium	< 0.010	0.010		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Lead	< 0.010	0.010		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Mercury	< 0.00020	0.00020		mg/l	1	09/01/16	09/01/16 EAL	SW846 7470A ²	SW846 7470A ⁴
Selenium	< 0.025	0.025		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Silver	< 0.0050	0.0050		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³

- (1) Instrument QC Batch: MA19427
- (2) Instrument QC Batch: MA19433
- (3) Prep QC Batch: MP26716
- (4) Prep QC Batch: MP26722

RL = Reporting Limit
 MCL = Maximum Contamination Level (not available)

Report of Analysis

Client Sample ID: GP-6		Date Sampled: 08/25/16
Lab Sample ID: MC47535-8		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 95.0
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M80629.D	1	08/30/16	KP	n/a	n/a	MSM2885
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	6.15 g	5.0 ml
Run #2		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone ^a	16.2	8.6	ug/kg	
107-13-1	Acrylonitrile	ND	21	ug/kg	
71-43-2	Benzene	ND	0.43	ug/kg	
108-86-1	Bromobenzene	ND	4.3	ug/kg	
75-27-4	Bromodichloromethane	ND	1.7	ug/kg	
75-25-2	Bromoform	ND	1.7	ug/kg	
74-83-9	Bromomethane	ND	1.7	ug/kg	
78-93-3	2-Butanone (MEK)	ND	17	ug/kg	
104-51-8	n-Butylbenzene	ND	4.3	ug/kg	
135-98-8	sec-Butylbenzene	ND	4.3	ug/kg	
98-06-6	tert-Butylbenzene	ND	4.3	ug/kg	
75-15-0	Carbon disulfide	5.6	4.3	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.7	ug/kg	
108-90-7	Chlorobenzene	ND	1.7	ug/kg	
75-00-3	Chloroethane	ND	4.3	ug/kg	
67-66-3	Chloroform	ND	1.7	ug/kg	
74-87-3	Chloromethane	ND	4.3	ug/kg	
95-49-8	o-Chlorotoluene	ND	4.3	ug/kg	
106-43-4	p-Chlorotoluene	ND	4.3	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	4.3	ug/kg	
124-48-1	Dibromochloromethane	ND	1.7	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.7	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.7	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.7	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.7	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	1.7	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.7	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.7	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.7	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.7	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.7	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.7	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-6	Date Sampled:	08/25/16
Lab Sample ID:	MC47535-8	Date Received:	08/26/16
Matrix:	SO - Soil	Percent Solids:	95.0
Method:	SW846 8260C		
Project:	424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	4.3	ug/kg	
594-20-7	2,2-Dichloropropane	ND	4.3	ug/kg	
563-58-6	1,1-Dichloropropene	ND	4.3	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.7	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.7	ug/kg	
100-41-4	Ethylbenzene	ND	1.7	ug/kg	
76-13-1	Freon 113	ND	4.3	ug/kg	
87-68-3	Hexachlorobutadiene	ND	4.3	ug/kg	
591-78-6	2-Hexanone	ND	8.6	ug/kg	
98-82-8	Isopropylbenzene	ND	4.3	ug/kg	
99-87-6	p-Isopropyltoluene	ND	4.3	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.7	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.3	ug/kg	
74-95-3	Methylene bromide	ND	4.3	ug/kg	
75-09-2	Methylene chloride	ND	1.7	ug/kg	
91-20-3	Naphthalene	ND	4.3	ug/kg	
103-65-1	n-Propylbenzene	ND	4.3	ug/kg	
100-42-5	Styrene	ND	4.3	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	4.3	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.7	ug/kg	
127-18-4	Tetrachloroethene	ND	1.7	ug/kg	
109-99-9	Tetrahydrofuran	ND	8.6	ug/kg	
108-88-3	Toluene	ND	4.3	ug/kg	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	4.3	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	4.3	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	4.3	ug/kg	
71-55-6	1,1,1-Trichloroethane	2.2	1.7	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	1.7	ug/kg	
79-01-6	Trichloroethene	16.8	1.7	ug/kg	
75-69-4	Trichlorofluoromethane	ND	1.7	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	4.3	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	4.3	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	4.3	ug/kg	
75-01-4	Vinyl chloride	ND	1.7	ug/kg	
	m,p-Xylene	ND	1.7	ug/kg	
95-47-6	o-Xylene	ND	1.7	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		65-141%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-6		Date Sampled: 08/25/16
Lab Sample ID: MC47535-8		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 95.0
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

4.15
4

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	102%		65-129%
460-00-4	4-Bromofluorobenzene	107%		63-137%

(a) Initial Calibration Verification outside of acceptance criteria. Sample result may be biased high.

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-6		Date Sampled: 08/25/16
Lab Sample ID: MC47535-8		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 95.0
Method: SW846 8270D SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W29707.D	1	08/31/16	MR	08/28/16	OP48551	MSW1197
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.1 g	1.0 ml
Run #2		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
95-57-8	2-Chlorophenol	ND	260	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	520	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	520	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	520	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	520	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	520	ug/kg	
95-48-7	2-Methylphenol	ND	520	ug/kg	
106-44-5	4-Methylphenol	ND	520	ug/kg	
88-75-5	2-Nitrophenol	ND	520	ug/kg	
100-02-7	4-Nitrophenol	ND	520	ug/kg	
87-86-5	Pentachlorophenol	ND	520	ug/kg	
108-95-2	Phenol	ND	260	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	520	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	520	ug/kg	
83-32-9	Acenaphthene	ND	100	ug/kg	
208-96-8	Acenaphthylene	ND	100	ug/kg	
62-53-3	Aniline	ND	520	ug/kg	
120-12-7	Anthracene	ND	100	ug/kg	
56-55-3	Benzo(a)anthracene	ND	100	ug/kg	
50-32-8	Benzo(a)pyrene	ND	260	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	100	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	100	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	100	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	260	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	260	ug/kg	
91-58-7	2-Chloronaphthalene	ND	260	ug/kg	
106-47-8	4-Chloroaniline	ND	520	ug/kg	
86-74-8	Carbazole	ND	100	ug/kg	
218-01-9	Chrysene	ND	100	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	260	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	260	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	260	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-6		Date Sampled: 08/25/16
Lab Sample ID: MC47535-8		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 95.0
Method: SW846 8270D SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

4.15
4

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	260	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	520	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	520	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	520	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	100	ug/kg	
132-64-9	Dibenzofuran	ND	100	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	260	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	260	ug/kg	
84-66-2	Diethyl phthalate	ND	260	ug/kg	
131-11-3	Dimethyl phthalate	ND	260	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	260	ug/kg	
206-44-0	Fluoranthene	ND	100	ug/kg	
86-73-7	Fluorene	ND	100	ug/kg	
118-74-1	Hexachlorobenzene	ND	260	ug/kg	
87-68-3	Hexachlorobutadiene	ND	260	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	520	ug/kg	
67-72-1	Hexachloroethane	ND	260	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	260	ug/kg	
78-59-1	Isophorone	ND	260	ug/kg	
91-57-6	2-Methylnaphthalene	ND	100	ug/kg	
88-74-4	2-Nitroaniline	ND	520	ug/kg	
99-09-2	3-Nitroaniline	ND	520	ug/kg	
100-01-6	4-Nitroaniline	ND	520	ug/kg	
91-20-3	Naphthalene	ND	100	ug/kg	
98-95-3	Nitrobenzene	ND	260	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	260	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	260	ug/kg	
82-68-8	Pentachloronitrobenzene	ND	520	ug/kg	
85-01-8	Phenanthrene	ND	100	ug/kg	
129-00-0	Pyrene	ND	100	ug/kg	
110-86-1	Pyridine	ND	520	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	520	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	260	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	74%		25-109%
4165-62-2	Phenol-d5	78%		29-113%
118-79-6	2,4,6-Tribromophenol	98%		20-141%
4165-60-0	Nitrobenzene-d5	75%		27-115%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-6		Date Sampled: 08/25/16
Lab Sample ID: MC47535-8		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 95.0
Method: SW846 8270D SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

ABN RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	75%		34-118%
1718-51-0	Terphenyl-d14	88%		42-139%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-6		Date Sampled: 08/25/16
Lab Sample ID: MC47535-8		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 95.0
Method: CT-ETPH 7/06 SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CF4609.D	1	08/31/16	MD	08/29/16	OP48569	GCF1300
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-ETPH (C9-C36)	ND	17	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	72%		50-137%	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.15
4

Report of Analysis

Client Sample ID: GP-6		Date Sampled: 08/25/16
Lab Sample ID: MC47535-8		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 95.0
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	1.1	0.84	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³
Barium	13.2	4.2	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³
Cadmium	< 0.34	0.34	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³
Chromium	6.5	0.84	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³
Lead	33.1	0.84	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³
Mercury	< 0.032	0.032	mg/kg	1	08/31/16	08/31/16 EAL	SW846 7471B ²	SW846 7471B ⁴
Selenium	< 0.84	0.84	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³
Silver	< 0.42	0.42	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³

- (1) Instrument QC Batch: MA19425
- (2) Instrument QC Batch: MA19431
- (3) Prep QC Batch: MP26704
- (4) Prep QC Batch: MP26719

RL = Reporting Limit

4.15
4

Report of Analysis

Client Sample ID: GP-6		Date Sampled: 08/25/16
Lab Sample ID: MC47535-8A		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 95.0
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

4.16
4

Metals Analysis, SPLP Leachate SW846 1312

Analyte	Result	MCL	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 0.010	0.010		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Barium	< 0.50	0.50		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Cadmium	< 0.0040	0.0040		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Chromium	< 0.010	0.010		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Lead	0.056	0.010		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Mercury	< 0.00020	0.00020		mg/l	1	09/01/16	09/01/16 EAL	SW846 7470A ²	SW846 7470A ⁴
Selenium	< 0.025	0.025		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Silver	< 0.0050	0.0050		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³

- (1) Instrument QC Batch: MA19427
- (2) Instrument QC Batch: MA19433
- (3) Prep QC Batch: MP26716
- (4) Prep QC Batch: MP26722

RL = Reporting Limit
MCL = Maximum Contamination Level (not available)

Report of Analysis

Client Sample ID: GP-7		Date Sampled: 08/25/16
Lab Sample ID: MC47535-9		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 97.0
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M80623.D	1	08/30/16	KP	n/a	n/a	MSM2885
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	4.82 g	5.0 ml
Run #2		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone ^a	15.5	11	ug/kg	
107-13-1	Acrylonitrile	ND	27	ug/kg	
71-43-2	Benzene	ND	0.54	ug/kg	
108-86-1	Bromobenzene	ND	5.4	ug/kg	
75-27-4	Bromodichloromethane	ND	2.1	ug/kg	
75-25-2	Bromoform	ND	2.1	ug/kg	
74-83-9	Bromomethane	ND	2.1	ug/kg	
78-93-3	2-Butanone (MEK)	ND	21	ug/kg	
104-51-8	n-Butylbenzene	ND	5.4	ug/kg	
135-98-8	sec-Butylbenzene	ND	5.4	ug/kg	
98-06-6	tert-Butylbenzene	ND	5.4	ug/kg	
75-15-0	Carbon disulfide	ND	5.4	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.1	ug/kg	
108-90-7	Chlorobenzene	ND	2.1	ug/kg	
75-00-3	Chloroethane	ND	5.4	ug/kg	
67-66-3	Chloroform	ND	2.1	ug/kg	
74-87-3	Chloromethane	ND	5.4	ug/kg	
95-49-8	o-Chlorotoluene	ND	5.4	ug/kg	
106-43-4	p-Chlorotoluene	ND	5.4	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.4	ug/kg	
124-48-1	Dibromochloromethane	ND	2.1	ug/kg	
106-93-4	1,2-Dibromoethane	ND	2.1	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	2.1	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	2.1	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	2.1	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	2.1	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.1	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.1	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.1	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.1	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.1	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.1	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-7	Date Sampled:	08/25/16
Lab Sample ID:	MC47535-9	Date Received:	08/26/16
Matrix:	SO - Soil	Percent Solids:	97.0
Method:	SW846 8260C		
Project:	424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.4	ug/kg	
594-20-7	2,2-Dichloropropane	ND	5.4	ug/kg	
563-58-6	1,1-Dichloropropene	ND	5.4	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.1	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.1	ug/kg	
100-41-4	Ethylbenzene	ND	2.1	ug/kg	
76-13-1	Freon 113	ND	5.4	ug/kg	
87-68-3	Hexachlorobutadiene	ND	5.4	ug/kg	
591-78-6	2-Hexanone	ND	11	ug/kg	
98-82-8	Isopropylbenzene	ND	5.4	ug/kg	
99-87-6	p-Isopropyltoluene	ND	5.4	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.1	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.4	ug/kg	
74-95-3	Methylene bromide	ND	5.4	ug/kg	
75-09-2	Methylene chloride	ND	2.1	ug/kg	
91-20-3	Naphthalene	ND	5.4	ug/kg	
103-65-1	n-Propylbenzene	ND	5.4	ug/kg	
100-42-5	Styrene	ND	5.4	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.4	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.1	ug/kg	
127-18-4	Tetrachloroethene	ND	2.1	ug/kg	
109-99-9	Tetrahydrofuran	ND	11	ug/kg	
108-88-3	Toluene	ND	5.4	ug/kg	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.4	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.4	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.4	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.1	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.1	ug/kg	
79-01-6	Trichloroethene	ND	2.1	ug/kg	
75-69-4	Trichlorofluoromethane	ND	2.1	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	5.4	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	5.4	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	5.4	ug/kg	
75-01-4	Vinyl chloride	ND	2.1	ug/kg	
	m,p-Xylene	ND	2.1	ug/kg	
95-47-6	o-Xylene	ND	2.1	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	109%		65-141%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-7		Date Sampled: 08/25/16
Lab Sample ID: MC47535-9		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 97.0
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

4.17
4

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	102%		65-129%
460-00-4	4-Bromofluorobenzene	108%		63-137%

(a) Initial Calibration Verification outside of acceptance criteria. Sample result may be biased high.

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-7		Date Sampled: 08/25/16
Lab Sample ID: MC47535-9		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 97.0
Method: SW846 8270D SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W29708.D	1	08/31/16	MR	08/28/16	OP48551	MSW1197
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.7 g	1.0 ml
Run #2		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
95-57-8	2-Chlorophenol	ND	250	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	500	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	500	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	500	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	500	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	500	ug/kg	
95-48-7	2-Methylphenol	ND	500	ug/kg	
106-44-5	4-Methylphenol	ND	500	ug/kg	
88-75-5	2-Nitrophenol	ND	500	ug/kg	
100-02-7	4-Nitrophenol	ND	500	ug/kg	
87-86-5	Pentachlorophenol	ND	500	ug/kg	
108-95-2	Phenol	ND	250	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	500	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	500	ug/kg	
83-32-9	Acenaphthene	ND	100	ug/kg	
208-96-8	Acenaphthylene	ND	100	ug/kg	
62-53-3	Aniline	ND	500	ug/kg	
120-12-7	Anthracene	ND	100	ug/kg	
56-55-3	Benzo(a)anthracene	ND	100	ug/kg	
50-32-8	Benzo(a)pyrene	ND	250	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	100	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	100	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	100	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	250	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	250	ug/kg	
91-58-7	2-Chloronaphthalene	ND	250	ug/kg	
106-47-8	4-Chloroaniline	ND	500	ug/kg	
86-74-8	Carbazole	ND	100	ug/kg	
218-01-9	Chrysene	ND	100	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	250	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	250	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	250	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-7		Date Sampled: 08/25/16
Lab Sample ID: MC47535-9		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 97.0
Method: SW846 8270D SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	250	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	500	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	500	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	500	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	100	ug/kg	
132-64-9	Dibenzofuran	ND	100	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	250	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	250	ug/kg	
84-66-2	Diethyl phthalate	ND	250	ug/kg	
131-11-3	Dimethyl phthalate	ND	250	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	250	ug/kg	
206-44-0	Fluoranthene	ND	100	ug/kg	
86-73-7	Fluorene	ND	100	ug/kg	
118-74-1	Hexachlorobenzene	ND	250	ug/kg	
87-68-3	Hexachlorobutadiene	ND	250	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	500	ug/kg	
67-72-1	Hexachloroethane	ND	250	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	250	ug/kg	
78-59-1	Isophorone	ND	250	ug/kg	
91-57-6	2-Methylnaphthalene	ND	100	ug/kg	
88-74-4	2-Nitroaniline	ND	500	ug/kg	
99-09-2	3-Nitroaniline	ND	500	ug/kg	
100-01-6	4-Nitroaniline	ND	500	ug/kg	
91-20-3	Naphthalene	ND	100	ug/kg	
98-95-3	Nitrobenzene	ND	250	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	250	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	250	ug/kg	
82-68-8	Pentachloronitrobenzene	ND	500	ug/kg	
85-01-8	Phenanthrene	ND	100	ug/kg	
129-00-0	Pyrene	ND	100	ug/kg	
110-86-1	Pyridine	ND	500	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	500	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	250	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	70%		25-109%
4165-62-2	Phenol-d5	72%		29-113%
118-79-6	2,4,6-Tribromophenol	91%		20-141%
4165-60-0	Nitrobenzene-d5	69%		27-115%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.17
4

Report of Analysis

Client Sample ID: GP-7		Date Sampled: 08/25/16
Lab Sample ID: MC47535-9		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 97.0
Method: SW846 8270D SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

ABN RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	73%		34-118%
1718-51-0	Terphenyl-d14	86%		42-139%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.17
 4

Report of Analysis

Client Sample ID: GP-7		Date Sampled: 08/25/16
Lab Sample ID: MC47535-9		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 97.0
Method: CT-ETPH 7/06 SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CF4623.D	1	08/31/16	MD	08/29/16	OP48569	GCF1300
Run #2							

	Initial Weight	Final Volume
Run #1	15.7 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-ETPH (C9-C36)	85.0	16	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	80%		50-137%	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.17
4

Report of Analysis

Client Sample ID: GP-7		Date Sampled: 08/25/16
Lab Sample ID: MC47535-9		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 97.0
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	0.84	0.83	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³
Barium	17.4	4.2	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³
Cadmium	< 0.33	0.33	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³
Chromium	4.6	0.83	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³
Lead	5.5	0.83	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³
Mercury	< 0.032	0.032	mg/kg	1	08/31/16	08/31/16 EAL	SW846 7471B ²	SW846 7471B ⁴
Selenium	< 0.83	0.83	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³
Silver	< 0.42	0.42	mg/kg	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3050B ³

- (1) Instrument QC Batch: MA19425
- (2) Instrument QC Batch: MA19431
- (3) Prep QC Batch: MP26704
- (4) Prep QC Batch: MP26719

RL = Reporting Limit

4.17
4

Report of Analysis

Client Sample ID: GP-7		Date Sampled: 08/25/16
Lab Sample ID: MC47535-9A		Date Received: 08/26/16
Matrix: SO - Soil		Percent Solids: 97.0
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Metals Analysis, SPLP Leachate SW846 1312

Analyte	Result	MCL	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 0.010	0.010		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Barium	< 0.50	0.50		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Cadmium	< 0.0040	0.0040		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Chromium	< 0.010	0.010		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Lead	< 0.010	0.010		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Mercury	< 0.00020	0.00020		mg/l	1	09/01/16	09/01/16 EAL	SW846 7470A ²	SW846 7470A ⁴
Selenium	< 0.025	0.025		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³
Silver	< 0.0050	0.0050		mg/l	1	08/31/16	08/31/16 EAL	SW846 6010C ¹	SW846 3010A ³

- (1) Instrument QC Batch: MA19427
- (2) Instrument QC Batch: MA19433
- (3) Prep QC Batch: MP26716
- (4) Prep QC Batch: MP26722

RL = Reporting Limit
MCL = Maximum Contamination Level (not available)

4.18
4

Report of Analysis

Client Sample ID: GW-1		Date Sampled: 08/25/16
Lab Sample ID: MC47535-10		Date Received: 08/26/16
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N104366.D	1	08/29/16	MC	n/a	n/a	MSN3826
Run #2							

Run #1	Purge Volume
Run #1	5.0 ml
Run #2	

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	10	ug/l	
107-13-1	Acrylonitrile	ND	5.0	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GW-1	Date Sampled:	08/25/16
Lab Sample ID:	MC47535-10	Date Received:	08/26/16
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	10	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	2.4	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	2.9	1.0	ug/l	
95-47-6	o-Xylene	1.2	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		76-129%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GW-1		Date Sampled: 08/25/16
Lab Sample ID: MC47535-10		Date Received: 08/26/16
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

4.19
4

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	98%		83-114%
460-00-4	4-Bromofluorobenzene	94%		75-124%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GW-1		Date Sampled: 08/25/16
Lab Sample ID: MC47535-10		Date Received: 08/26/16
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8270D SW846 3510C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	W29681.D	1	08/30/16	MR	08/29/16	OP48571	MSW1196

Run #1	Initial Volume	Final Volume
Run #2	975 ml	1.0 ml

ABN RCP List(without PAH)

CAS No.	Compound	Result	RL	Units	Q
95-57-8	2-Chlorophenol	ND	5.1	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	ug/l	
95-48-7	2-Methylphenol	ND	10	ug/l	
106-44-5	4-Methylphenol	ND	10	ug/l	
88-75-5	2-Nitrophenol	ND	10	ug/l	
100-02-7	4-Nitrophenol	ND	21	ug/l	
87-86-5	Pentachlorophenol	ND	10	ug/l	
108-95-2	Phenol	ND	5.1	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	ug/l	
62-53-3	Aniline	ND	10	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.1	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.1	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.1	ug/l	
106-47-8	4-Chloroaniline	ND	10	ug/l	
86-74-8	Carbazole	ND	2.1	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.1	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.1	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.1	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.1	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.1	ug/l	
132-64-9	Dibenzofuran	ND	2.1	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.1	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.1	ug/l	
84-66-2	Diethyl phthalate	ND	5.1	ug/l	
131-11-3	Dimethyl phthalate	ND	5.1	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GW-1	Date Sampled:	08/25/16
Lab Sample ID:	MC47535-10	Date Received:	08/26/16
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270D SW846 3510C		
Project:	424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

ABN RCP List(without PAH)

CAS No.	Compound	Result	RL	Units	Q
117-81-7	bis(2-Ethylhexyl)phthalate ^a	7.6	2.1	ug/l	
118-74-1	Hexachlorobenzene	ND	5.1	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.1	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	ug/l	
67-72-1	Hexachloroethane	ND	5.1	ug/l	
78-59-1	Isophorone	ND	5.1	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.1	ug/l	
88-74-4	2-Nitroaniline	ND	10	ug/l	
99-09-2	3-Nitroaniline	ND	10	ug/l	
100-01-6	4-Nitroaniline	ND	10	ug/l	
98-95-3	Nitrobenzene	ND	5.1	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.1	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	10	ug/l	
82-68-8	Pentachloronitrobenzene	ND	10	ug/l	
110-86-1	Pyridine	ND	10	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	10	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.1	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	36%		10-80%
4165-62-2	Phenol-d5	22%		10-72%
118-79-6	2,4,6-Tribromophenol	85%		42-134%
4165-60-0	Nitrobenzene-d5	64%		25-117%
321-60-8	2-Fluorobiphenyl	62%		24-112%
1718-51-0	Terphenyl-d14	68%		48-133%

(a) Continuing Calibration outside acceptance criteria. Sample result may be biased high.

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GW-1		Date Sampled: 08/25/16
Lab Sample ID: MC47535-10		Date Received: 08/26/16
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8270D BY SIM SW846 3510C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I102604.D	1	08/30/16	MR	08/29/16	OP48572	MSI3878
Run #2							

Run #1	Initial Volume	Final Volume
Run #1	975 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	0.10	ug/l	
208-96-8	Acenaphthylene	ND	0.10	ug/l	
120-12-7	Anthracene	ND	0.10	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.051	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.051	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	ug/l	
218-01-9	Chrysene	ND	0.10	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	ug/l	
206-44-0	Fluoranthene	ND	0.10	ug/l	
86-73-7	Fluorene	ND	0.10	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.1	ug/l	
91-20-3	Naphthalene	ND	2.1	ug/l	
85-01-8	Phenanthrene	ND	0.051	ug/l	
129-00-0	Pyrene	ND	0.10	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	60%		26-121%
321-60-8	2-Fluorobiphenyl	57%		28-107%
1718-51-0	Terphenyl-d14	60%		29-129%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.19
4

Report of Analysis

Client Sample ID: GW-1		Date Sampled: 08/25/16
Lab Sample ID: MC47535-10		Date Received: 08/26/16
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: CT-ETPH 7/06 SW846 3510C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CF4619.D	1	08/31/16	MD	08/30/16	OP48576	GCF1300
Run #2							

	Initial Volume	Final Volume
Run #1	970 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-ETPH (C9-C36)	0.162	0.10	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	79%		50-149%	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.19
4

Report of Analysis

Client Sample ID: GW-1		Date Sampled: 08/25/16
Lab Sample ID: MC47535-10		Date Received: 08/26/16
Matrix: AQ - Ground Water		Percent Solids: n/a
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Barium	< 50	50	ug/l	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Cadmium	< 4.0	4.0	ug/l	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Chromium	< 10	10	ug/l	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Lead	< 5.0	5.0	ug/l	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Mercury	< 0.20	0.20	ug/l	1	08/30/16	08/31/16 EAL	SW846 7470A ²	SW846 7470A ⁴
Selenium	< 10	10	ug/l	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Silver	< 5.0	5.0	ug/l	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³

- (1) Instrument QC Batch: MA19424
- (2) Instrument QC Batch: MA19426
- (3) Prep QC Batch: MP26705
- (4) Prep QC Batch: MP26712

RL = Reporting Limit

4.19
4

Report of Analysis

Client Sample ID: GW-1		Date Sampled: 08/25/16
Lab Sample ID: MC47535-10F		Date Received: 08/26/16
Matrix: AQ - Groundwater Filtered		Percent Solids: n/a
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	08/29/16 08/30/16	EAL	SW846 6010C ¹	SW846 3010A ³
Barium	< 50	50	ug/l	1	08/29/16 08/30/16	EAL	SW846 6010C ¹	SW846 3010A ³
Cadmium	< 4.0	4.0	ug/l	1	08/29/16 08/30/16	EAL	SW846 6010C ¹	SW846 3010A ³
Chromium	< 10	10	ug/l	1	08/29/16 08/30/16	EAL	SW846 6010C ¹	SW846 3010A ³
Lead	< 5.0	5.0	ug/l	1	08/29/16 08/30/16	EAL	SW846 6010C ¹	SW846 3010A ³
Mercury	< 0.20	0.20	ug/l	1	08/30/16 08/31/16	EAL	SW846 7470A ²	SW846 7470A ⁴
Selenium	< 10	10	ug/l	1	08/29/16 08/30/16	EAL	SW846 6010C ¹	SW846 3010A ³
Silver	< 5.0	5.0	ug/l	1	08/29/16 08/30/16	EAL	SW846 6010C ¹	SW846 3010A ³

- (1) Instrument QC Batch: MA19424
- (2) Instrument QC Batch: MA19426
- (3) Prep QC Batch: MP26705
- (4) Prep QC Batch: MP26712

RL = Reporting Limit

4.20
4

Report of Analysis

Client Sample ID: GW-2		Date Sampled: 08/25/16
Lab Sample ID: MC47535-11		Date Received: 08/26/16
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N104367.D	1	08/29/16	MC	n/a	n/a	MSN3826
Run #2							

Run #1	Purge Volume
Run #1	5.0 ml
Run #2	

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	10	ug/l	
107-13-1	Acrylonitrile	ND	5.0	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GW-2	Date Sampled:	08/25/16
Lab Sample ID:	MC47535-11	Date Received:	08/26/16
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	10	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	2.6	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	3.4	1.0	ug/l	
95-47-6	o-Xylene	1.3	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		76-129%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GW-2		Date Sampled: 08/25/16
Lab Sample ID: MC47535-11		Date Received: 08/26/16
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	98%		83-114%
460-00-4	4-Bromofluorobenzene	95%		75-124%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.21
 4

Report of Analysis

Client Sample ID: GW-2		Date Sampled: 08/25/16
Lab Sample ID: MC47535-11		Date Received: 08/26/16
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8270D SW846 3510C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	W29682.D	1	08/30/16	MR	08/29/16	OP48571	MSW1196

Run #1	Initial Volume	Final Volume
Run #2	975 ml	1.0 ml

ABN RCP List(without PAH)

CAS No.	Compound	Result	RL	Units	Q
95-57-8	2-Chlorophenol	ND	5.1	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	ug/l	
95-48-7	2-Methylphenol	ND	10	ug/l	
106-44-5	4-Methylphenol	ND	10	ug/l	
88-75-5	2-Nitrophenol	ND	10	ug/l	
100-02-7	4-Nitrophenol	ND	21	ug/l	
87-86-5	Pentachlorophenol	ND	10	ug/l	
108-95-2	Phenol	ND	5.1	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	ug/l	
62-53-3	Aniline	ND	10	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.1	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.1	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.1	ug/l	
106-47-8	4-Chloroaniline	ND	10	ug/l	
86-74-8	Carbazole	ND	2.1	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.1	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.1	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.1	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.1	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.1	ug/l	
132-64-9	Dibenzofuran	ND	2.1	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.1	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.1	ug/l	
84-66-2	Diethyl phthalate	ND	5.1	ug/l	
131-11-3	Dimethyl phthalate	ND	5.1	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GW-2	Date Sampled:	08/25/16
Lab Sample ID:	MC47535-11	Date Received:	08/26/16
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270D SW846 3510C		
Project:	424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

ABN RCP List(without PAH)

CAS No.	Compound	Result	RL	Units	Q
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	ug/l	
118-74-1	Hexachlorobenzene	ND	5.1	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.1	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	ug/l	
67-72-1	Hexachloroethane	ND	5.1	ug/l	
78-59-1	Isophorone	ND	5.1	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.1	ug/l	
88-74-4	2-Nitroaniline	ND	10	ug/l	
99-09-2	3-Nitroaniline	ND	10	ug/l	
100-01-6	4-Nitroaniline	ND	10	ug/l	
98-95-3	Nitrobenzene	ND	5.1	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.1	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	10	ug/l	
82-68-8	Pentachloronitrobenzene	ND	10	ug/l	
110-86-1	Pyridine	ND	10	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	10	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.1	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	29%		10-80%
4165-62-2	Phenol-d5	16%		10-72%
118-79-6	2,4,6-Tribromophenol	82%		42-134%
4165-60-0	Nitrobenzene-d5	67%		25-117%
321-60-8	2-Fluorobiphenyl	62%		24-112%
1718-51-0	Terphenyl-d14	71%		48-133%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GW-2		Date Sampled: 08/25/16
Lab Sample ID: MC47535-11		Date Received: 08/26/16
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8270D BY SIM SW846 3510C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I102605.D	1	08/30/16	MR	08/29/16	OP48572	MSI3878
Run #2							

Run #1	Initial Volume	Final Volume
Run #1	975 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	0.10	ug/l	
208-96-8	Acenaphthylene	ND	0.10	ug/l	
120-12-7	Anthracene	ND	0.10	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.051	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.051	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	ug/l	
218-01-9	Chrysene	ND	0.10	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	ug/l	
206-44-0	Fluoranthene	ND	0.10	ug/l	
86-73-7	Fluorene	ND	0.10	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.1	ug/l	
91-20-3	Naphthalene	ND	2.1	ug/l	
85-01-8	Phenanthrene	ND	0.051	ug/l	
129-00-0	Pyrene	ND	0.10	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	61%		26-121%
321-60-8	2-Fluorobiphenyl	55%		28-107%
1718-51-0	Terphenyl-d14	62%		29-129%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GW-2		Date Sampled: 08/25/16
Lab Sample ID: MC47535-11		Date Received: 08/26/16
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: CT-ETPH 7/06 SW846 3510C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CF4608.D	1	08/31/16	MD	08/30/16	OP48576	GCF1300
Run #2							

	Initial Volume	Final Volume
Run #1	980 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-ETPH (C9-C36)	ND	0.10	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	79%		50-149%	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.21
4

Report of Analysis

Client Sample ID: GW-2		Date Sampled: 08/25/16
Lab Sample ID: MC47535-11		Date Received: 08/26/16
Matrix: AQ - Ground Water		Percent Solids: n/a
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Barium	326	50	ug/l	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Cadmium	< 4.0	4.0	ug/l	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Chromium	< 10	10	ug/l	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Lead	< 5.0	5.0	ug/l	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Mercury	< 0.20	0.20	ug/l	1	08/30/16	08/31/16 EAL	SW846 7470A ²	SW846 7470A ⁴
Selenium	< 10	10	ug/l	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Silver	< 5.0	5.0	ug/l	1	08/29/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³

- (1) Instrument QC Batch: MA19424
- (2) Instrument QC Batch: MA19426
- (3) Prep QC Batch: MP26705
- (4) Prep QC Batch: MP26712

RL = Reporting Limit

4.21
4

Report of Analysis

Client Sample ID: GW-2		Date Sampled: 08/25/16
Lab Sample ID: MC47535-11F		Date Received: 08/26/16
Matrix: AQ - Groundwater Filtered		Percent Solids: n/a
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	08/29/16	08/30/16	EAL SW846 6010C ¹	SW846 3010A ³
Barium	207	50	ug/l	1	08/29/16	08/30/16	EAL SW846 6010C ¹	SW846 3010A ³
Cadmium	< 4.0	4.0	ug/l	1	08/29/16	08/30/16	EAL SW846 6010C ¹	SW846 3010A ³
Chromium	< 10	10	ug/l	1	08/29/16	08/30/16	EAL SW846 6010C ¹	SW846 3010A ³
Lead	< 5.0	5.0	ug/l	1	08/29/16	08/30/16	EAL SW846 6010C ¹	SW846 3010A ³
Mercury	< 0.20	0.20	ug/l	1	08/30/16	08/31/16	EAL SW846 7470A ²	SW846 7470A ⁴
Selenium	< 10	10	ug/l	1	08/29/16	08/30/16	EAL SW846 6010C ¹	SW846 3010A ³
Silver	< 5.0	5.0	ug/l	1	08/29/16	08/30/16	EAL SW846 6010C ¹	SW846 3010A ³

- (1) Instrument QC Batch: MA19424
- (2) Instrument QC Batch: MA19426
- (3) Prep QC Batch: MP26705
- (4) Prep QC Batch: MP26712

RL = Reporting Limit

4.22
4

Report of Analysis

Client Sample ID: TB-1		Date Sampled: 08/25/16
Lab Sample ID: MC47535-12		Date Received: 08/26/16
Matrix: AQ - Trip Blank Water		Percent Solids: n/a
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N104357.D	1	08/29/16	MC	n/a	n/a	MSN3826
Run #2							

Run #1	Purge Volume
Run #1	5.0 ml
Run #2	

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	10	ug/l	
107-13-1	Acrylonitrile	ND	5.0	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-1	Date Sampled:	08/25/16
Lab Sample ID:	MC47535-12	Date Received:	08/26/16
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	10	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		76-129%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: TB-1		Date Sampled: 08/25/16
Lab Sample ID: MC47535-12		Date Received: 08/26/16
Matrix: AQ - Trip Blank Water		Percent Solids: n/a
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	98%		83-114%
460-00-4	4-Bromofluorobenzene	94%		75-124%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- RCP Form
- Sample Tracking Chronicle
- QC Evaluation: CT RCP Limits



ACCUTEST

CHAIN OF CUSTODY

SGS Accutest of New England
50 D'Angelo Drive, Building One Marlborough, MA 01752
TEL: 508-481-6200 FAX: 508-481-7753
www.accutest.com

FED-EX Tracking #
SGS Accutest Job #
PM 7-2016-278
MC47535
MC47440

Table with columns for Client/Reporting Information, Project Information, Billing Information, Requested Analysis, Matrix Codes, and a large data table for sample collection (Field ID, Date, Time, Sampled by, etc.).

Turnaround Time (Business days)
Approved By (SGS Accutest PM): / Date:
Commercial "A" (Level 1)
Commercial "B" (Level 2)
FULLT1 (Level 3+4)
CT RCP
MA MCP
NYASP Category A
NYASP Category B
State Forms
EDD Format
Other

Sample Custody must be documented below each time samples change possession, including courier delivery.
Table with columns for Relinquished by, Date Time, Received By, Date Time, Relinquished by, Date Time, Received By, Date Time, Relinquished by, Date Time, Received By, Date Time.

5.1
5

SGS Accutest Sample Receipt Summary

Job Number: MC47535

Client: CDR

Project: 424 CHAPEL STREET

Date / Time Received: 8/26/2016 6:25:00 PM

Delivery Method: SGS Courier

Airbill #s:

Cooler Temps (Initial/Adjusted): #1: (0.4/0.4); #2: (0.7/0.7);

Cooler Security

	<u>Y or N</u>			<u>Y or N</u>	
1. Custody Seals Present:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3. COC Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Custody Seals Intact:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4. Smp Dates/Time OK	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Cooler Temperature

	<u>Y or N</u>	
1. Temp criteria achieved:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Cooler temp verification:	IRGUN1	
3. Cooler media:	Ice (Bag)	
4. No. Coolers:	2	

Quality Control Preservation

	<u>Y</u>	<u>N</u>	<u>N/A</u>
1. Trip Blank present / cooler:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. Trip Blank listed on COC:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3. Samples preserved properly:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4. VOCs headspace free:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments

MC47535-3 1x950ml was broken during transit.
 MC47535-5 received 1x40ml MeOH vial and 1x40ml Sodium Bisulfate vials. COC says two sodium bisulfate vials were submitted.
 MC47535-10 and MC47535-11 - Only 2x950ml were received but 3 were required for 8270, 8082, and CT ETPH.
 MC47535-12 - No analysis checked off

Sample Integrity - Documentation

	<u>Y or N</u>	
1. Sample labels present on bottles:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Container labeling complete:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Sample container label / COC agree:	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Sample Integrity - Condition

	<u>Y or N</u>	
1. Sample rec'd within HT:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. All containers accounted for:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Condition of sample:	Broken / Leaking	

Sample Integrity - Instructions

	<u>Y</u>	<u>N</u>	<u>N/A</u>
1. Analysis requested is clear:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2. Bottles received for unspecified tests	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3. Sufficient volume rec'd for analysis:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
4. Compositing instructions clear:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Filtering instructions clear:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

5.1
5

MC47535: Chain of Custody

Page 2 of 3

Sample Receipt Summary - Problem Resolution

Job Number: MC47535

CSR: Jeremy Vienneau

Response Date: 8/29/2016

Response: SGS Accutest aliquoted the soil from the broken bottle for sample MC47535-3 and client confirmed it was okay to proceed.
Client advised for -10 and -11 to analyze for 8270 and CT ETPH only and to run the trip blank for VOCs by 8260. See email in file.

5.1

5

MC47535: Chain of Custody

Page 3 of 3

Reasonable Confidence Protocol Laboratory Analysis QA/QC Certification Form

Laboratory Name: Accutest New England **Client:** CDR Maguire
Project Location: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT **Project Number:** 0092-0531
Sampling Date(s): 8/25/2016


Laboratory Sample ID(s): MC47535-1, MC47535-2, MC47535-3, MC47535-4, MC47535-5, MC47535-6, MC47535-7, MC47535-8, MC47535-9, MC47535-10, MC47535-11, MC47535-12, MC47535-1A, MC47535-2A, MC47535-3A, MC47535-4A, MC47535-5A, MC47535-6A, MC47535-7A, MC47535-8A, MC47535-9A, MC47535-10F, MC47535-11F

Methods: Refer to case narrative.

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 <input checked="" type="checkbox"/> No <input type="checkbox"/>
1A	Where all the method specified preservation and holding time requirements met?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1B	VPH and EPH methods only: Was the VPH or EPH method conducted without significant modifications (See section 11.3 of respective methods)	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
3	Were samples received at an appropriate temperature (<6° C)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
4	Were all QA/QC performance criteria specified in the CTDEP Reasonable Confidence Protocol documents achieved?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
5	a) Were reporting limits specified or referenced on the chain-of-custody?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
	b) Were these reporting limits met?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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 <input type="checkbox"/> No <input checked="" type="checkbox"/>
7	Are project-specific matrix spikes and laboratory duplicates included in this data set?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

Note: 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".

I, the undersigned, attest under 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: Lab Director
Printed Name: H. (Brad) Madadian Date: 9/2/2016
Accutest New England

5.2
5

Internal Sample Tracking Chronicle

CDR Maguire

Job No: MC47535

424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
 Project No: 0092-0531

5.3
5

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC47535-1 Collected: 25-AUG-16 07:00 By: JB Received: 26-AUG-16 By: NT GP-16						
MC47535-1	SM 2540G-97 MOD	30-AUG-16	HS			%SOL
MC47535-1	SW846 8260C	30-AUG-16 15:32	KP			V8260RCP
MC47535-1	SW846 6010C	30-AUG-16 16:04	EAL	29-AUG-16 EM		AG, AS, BA, CD, CR, PB, SE
MC47535-1	SW846 8270D	31-AUG-16 16:45	MR	28-AUG-16 NE		AB8270RCP
MC47535-1	SW846 7471B	31-AUG-16 17:23	EAL	31-AUG-16 EM		HG
MC47535-1	CT-ETPH 7/06	31-AUG-16 22:11	MD	29-AUG-16 PA		BCTTPH
MC47535-2 Collected: 25-AUG-16 07:30 By: JB Received: 26-AUG-16 By: NT GP-17						
MC47535-2	SM 2540G-97 MOD	30-AUG-16	HS			%SOL
MC47535-2	SW846 8260C	30-AUG-16 16:00	KP			V8260RCP
MC47535-2	SW846 6010C	30-AUG-16 16:09	EAL	29-AUG-16 EM		AG, AS, CD, CR, PB, SE
MC47535-2	SW846 6010C	31-AUG-16 12:07	EAL	29-AUG-16 EM		BA
MC47535-2	SW846 8270D	31-AUG-16 17:12	MR	28-AUG-16 NE		AB8270RCP
MC47535-2	SW846 7471B	31-AUG-16 17:25	EAL	31-AUG-16 EM		HG
MC47535-2	CT-ETPH 7/06	31-AUG-16 18:55	MD	29-AUG-16 PA		BCTTPH
MC47535-3 Collected: 25-AUG-16 08:15 By: JB Received: 26-AUG-16 By: NT GP-18						
MC47535-3	SM 2540G-97 MOD	30-AUG-16	HS			%SOL
MC47535-3	SW846 6010C	30-AUG-16 16:23	EAL	29-AUG-16 EM		AG, AS, BA, CD, CR, PB, SE
MC47535-3	SW846 8260C	30-AUG-16 16:27	KP			V8260RCP
MC47535-3	SW846 7471B	31-AUG-16 17:28	EAL	31-AUG-16 EM		HG
MC47535-3	SW846 8270D	31-AUG-16 17:39	MR	28-AUG-16 NE		AB8270RCP
MC47535-3	CT-ETPH 7/06	31-AUG-16 18:22	MD	29-AUG-16 PA		BCTTPH
MC47535-4 Collected: 25-AUG-16 08:30 By: JB Received: 26-AUG-16 By: NT GP-19						
MC47535-4	SM 2540G-97 MOD	30-AUG-16	HS			%SOL
MC47535-4	SW846 6010C	30-AUG-16 16:28	EAL	29-AUG-16 EM		AG, AS, BA, CD, CR, PB, SE
MC47535-4	SW846 8260C	30-AUG-16 16:55	KP			V8260RCP
MC47535-4	CT-ETPH 7/06	31-AUG-16 15:39	MD	29-AUG-16 PA		BCTTPH
MC47535-4	SW846 7471B	31-AUG-16 17:41	EAL	31-AUG-16 EM		HG
MC47535-4	SW846 8270D	31-AUG-16 18:06	MR	28-AUG-16 NE		AB8270RCP

Internal Sample Tracking Chronicle

CDR Maguire

Job No: MC47535

424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
 Project No: 0092-0531

5.3
5

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
---------------	--------	----------	----	---------	----	------------

MC47535-5 Collected: 25-AUG-16 09:45 By: JB Received: 26-AUG-16 By: NT
 GP-20

MC47535-5 SM 2540G-97 MOD		30-AUG-16	HS			% SOL
MC47535-5 SW846 6010C		30-AUG-16 16:33	EAL	29-AUG-16 EM		AG, AS, BA, CD, CR, PB, SE
MC47535-5 SW846 8260C		30-AUG-16 17:23	KP			V8260RCP
MC47535-5 SW846 7471B		31-AUG-16 17:44	EAL	31-AUG-16 EM		HG
MC47535-5 SW846 8270D		31-AUG-16 18:33	MR	28-AUG-16 NE		AB8270RCP
MC47535-5 CT-ETPH 7/06		31-AUG-16 21:06	MD	29-AUG-16 PA		BCTTPH

MC47535-6 Collected: 25-AUG-16 10:00 By: JB Received: 26-AUG-16 By: NT
 GP-8

MC47535-6 SM 2540G-97 MOD		30-AUG-16	HS			% SOL
MC47535-6 SW846 6010C		30-AUG-16 16:38	EAL	29-AUG-16 EM		AG, AS, BA, CD, CR, PB, SE
MC47535-6 SW846 8260C		30-AUG-16 17:51	KP			V8260RCP
MC47535-6 CT-ETPH 7/06		31-AUG-16 16:11	MD	29-AUG-16 PA		BCTTPH
MC47535-6 SW846 7471B		31-AUG-16 17:46	EAL	31-AUG-16 EM		HG
MC47535-6 SW846 8270D		31-AUG-16 19:00	MR	28-AUG-16 NE		AB8270RCP

MC47535-7 Collected: 25-AUG-16 10:15 By: JB Received: 26-AUG-16 By: NT
 GP-10

MC47535-7 SM 2540G-97 MOD		30-AUG-16	HS			% SOL
MC47535-7 SW846 6010C		30-AUG-16 15:49	EAL	29-AUG-16 EM		AG, AS, BA, CD, CR, PB, SE
MC47535-7 SW846 8260C		30-AUG-16 18:19	KP			V8260RCP
MC47535-7 SW846 7471B		31-AUG-16 17:18	EAL	31-AUG-16 EM		HG
MC47535-7 SW846 8270D		31-AUG-16 19:27	MR	28-AUG-16 NE		AB8270RCP
MC47535-7 CT-ETPH 7/06		31-AUG-16 20:00	MD	29-AUG-16 PA		BCTTPH

MC47535-8 Collected: 25-AUG-16 10:30 By: JB Received: 26-AUG-16 By: NT
 GP-6

MC47535-8 SM 2540G-97 MOD		30-AUG-16	HS			% SOL
MC47535-8 SW846 6010C		30-AUG-16 16:43	EAL	29-AUG-16 EM		AG, AS, BA, CD, CR, PB, SE
MC47535-8 SW846 8260C		30-AUG-16 21:34	KP			V8260RCP
MC47535-8 CT-ETPH 7/06		31-AUG-16 13:59	MD	29-AUG-16 PA		BCTTPH
MC47535-8 SW846 7471B		31-AUG-16 17:49	EAL	31-AUG-16 EM		HG
MC47535-8 SW846 8270D		31-AUG-16 19:55	MR	28-AUG-16 NE		AB8270RCP

Internal Sample Tracking Chronicle

CDR Maguire

Job No: MC47535

424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
 Project No: 0092-0531

5.3
5

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
---------------	--------	----------	----	---------	----	------------

MC47535-9 Collected: 25-AUG-16 10:45 By: JB Received: 26-AUG-16 By: NT
 GP-7

MC47535-9 SM 2540G-97 MOD	30-AUG-16	HS				% SOL
MC47535-9 SW846 6010C	30-AUG-16 16:48	EAL	29-AUG-16	EM		AG, AS, BA, CD, CR, PB, SE
MC47535-9 SW846 8260C	30-AUG-16 18:47	KP				V8260RCP
MC47535-9 SW846 7471B	31-AUG-16 18:38	EAL	31-AUG-16	EM		HG
MC47535-9 SW846 8270D	31-AUG-16 20:21	MR	28-AUG-16	NE		AB8270RCP
MC47535-9 CT-ETPH 7/06	31-AUG-16 21:39	MD	29-AUG-16	PA		BCTTPH

MC47535-10 Collected: 25-AUG-16 08:00 By: JB Received: 26-AUG-16 By: NT
 GW-1

MC47535-10 SW846 8260C	29-AUG-16 16:09	MC				V8260RCP
MC47535-10 SW846 6010C	30-AUG-16 13:31	EAL	29-AUG-16	EM		AG, AS, BA, CD, CR, PB, SE
MC47535-10 SW846 8270D BY SIM	30-AUG-16 16:32	MR	29-AUG-16	AW		B8270SIMP AH
MC47535-10 SW846 8270D	30-AUG-16 17:02	MR	29-AUG-16	AW		AB8270RCP-PAH
MC47535-10 SW846 7470A	31-AUG-16 15:35	EAL	30-AUG-16	EM		HG
MC47535-10 CT-ETPH 7/06	31-AUG-16 19:28	MD	30-AUG-16	PA		BCTTPH

MC47535-11 Collected: 25-AUG-16 08:00 By: JB Received: 26-AUG-16 By: NT
 GW-2

MC47535-11 SW846 8260C	29-AUG-16 16:38	MC				V8260RCP
MC47535-11 SW846 6010C	30-AUG-16 12:00	EAL	29-AUG-16	EM		AG, AS, BA, CD, CR, PB, SE
MC47535-11 SW846 8270D BY SIM	30-AUG-16 17:02	MR	29-AUG-16	AW		B8270SIMP AH
MC47535-11 SW846 8270D	30-AUG-16 17:30	MR	29-AUG-16	AW		AB8270RCP-PAH
MC47535-11 CT-ETPH 7/06	31-AUG-16 13:26	MD	30-AUG-16	PA		BCTTPH
MC47535-11 SW846 7470A	31-AUG-16 15:37	EAL	30-AUG-16	EM		HG

MC47535-12 Collected: 25-AUG-16 11:00 By: JB Received: 26-AUG-16 By: NT
 TB-1

MC47535-12 SW846 8260C	29-AUG-16 11:53	MC				V8260RCP
------------------------	-----------------	----	--	--	--	----------

MC47535-13 Collected: 25-AUG-16 07:00 By: JB Received: 26-AUG-16 By: NT
 GP-16

MC47535-13 SW846 6010C	31-AUG-16 13:41	EAL	31-AUG-16	EM		EAG, EAS, EBA, ECD, ECR, EPB, ESE
------------------------	-----------------	-----	-----------	----	--	-----------------------------------

Internal Sample Tracking Chronicle

CDR Maguire

Job No: MC47535

424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
 Project No: 0092-0531

5.3
5

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC47535-1	SW846 7470A	01-SEP-16 14:52	EAL	01-SEP-16	EM	EHG
MC47535-2 Collected: 25-AUG-16 07:30 By: JB Received: 26-AUG-16 By: NT GP-17						
MC47535-2	SW846 6010C	31-AUG-16 14:01	EAL	31-AUG-16	EM	EAG,EAS,EBA,ECD,ECR,EPB,ESE
MC47535-2	SW846 7470A	01-SEP-16 14:55	EAL	01-SEP-16	EM	EHG
MC47535-3 Collected: 25-AUG-16 08:15 By: JB Received: 26-AUG-16 By: NT GP-18						
MC47535-3	SW846 6010C	31-AUG-16 14:06	EAL	31-AUG-16	EM	EAG,EAS,EBA,ECD,ECR,EPB,ESE
MC47535-3	SW846 7470A	01-SEP-16 14:57	EAL	01-SEP-16	EM	EHG
MC47535-4 Collected: 25-AUG-16 08:30 By: JB Received: 26-AUG-16 By: NT GP-19						
MC47535-4	SW846 6010C	31-AUG-16 14:10	EAL	31-AUG-16	EM	EAG,EAS,EBA,ECD,ECR,EPB,ESE
MC47535-4	SW846 7470A	01-SEP-16 14:59	EAL	01-SEP-16	EM	EHG
MC47535-5 Collected: 25-AUG-16 09:45 By: JB Received: 26-AUG-16 By: NT GP-20						
MC47535-5	SW846 6010C	31-AUG-16 14:15	EAL	31-AUG-16	EM	EAG,EAS,EBA,ECD,ECR,EPB,ESE
MC47535-5	SW846 7470A	01-SEP-16 15:06	EAL	01-SEP-16	EM	EHG
MC47535-6 Collected: 25-AUG-16 10:00 By: JB Received: 26-AUG-16 By: NT GP-8						
MC47535-6	SW846 6010C	31-AUG-16 14:20	EAL	31-AUG-16	EM	EAG,EAS,EBA,ECD,ECR,EPB,ESE
MC47535-6	SW846 7470A	01-SEP-16 15:09	EAL	01-SEP-16	EM	EHG
MC47535-7 Collected: 25-AUG-16 10:15 By: JB Received: 26-AUG-16 By: NT GP-10						
MC47535-7	SW846 6010C	31-AUG-16 14:25	EAL	31-AUG-16	EM	EAG,EAS,EBA,ECD,ECR,EPB,ESE
MC47535-7	SW846 7470A	01-SEP-16 15:11	EAL	01-SEP-16	EM	EHG

Internal Sample Tracking Chronicle

CDR Maguire

Job No: MC47535

424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
 Project No: 0092-0531

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
---------------	--------	----------	----	---------	----	------------

MC47535-8A Collected: 25-AUG-16 10:30 By: JB Received: 26-AUG-16 By: NT
 GP-6

MC47535-8A SW846 6010C 31-AUG-16 14:30 EAL 31-AUG-16 EM EAG,EAS,EBA,ECD,ECR,EPB,ESE
 MC47535-8A SW846 7470A 01-SEP-16 15:13 EAL 01-SEP-16 EM EHG

MC47535-9A Collected: 25-AUG-16 10:45 By: JB Received: 26-AUG-16 By: NT
 GP-7

MC47535-9A SW846 6010C 31-AUG-16 14:35 EAL 31-AUG-16 EM EAG,EAS,EBA,ECD,ECR,EPB,ESE
 MC47535-9A SW846 7470A 01-SEP-16 15:15 EAL 01-SEP-16 EM EHG

MC47535-10A Collected: 25-AUG-16 08:00 By: JB Received: 26-AUG-16 By: NT
 GW-1

MC47535-10A SW846 6010C 30-AUG-16 13:36 EAL 29-AUG-16 EM AG,AS,BA,CD,CR,PB,SE
 MC47535-10A SW846 7470A 31-AUG-16 15:21 EAL 30-AUG-16 EM HG

MC47535-11A Collected: 25-AUG-16 08:00 By: JB Received: 26-AUG-16 By: NT
 GW-2

MC47535-11A SW846 6010C 30-AUG-16 11:50 EAL 29-AUG-16 EM AG,AS,BA,CD,CR,PB,SE
 MC47535-11A SW846 7470A 31-AUG-16 15:40 EAL 30-AUG-16 EM HG

QC Evaluation: CT RCP Limits

Job Number: MC47535
Account: CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
Collected: 08/25/16

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
MSM2885	SW846 8260C						
MSM2885-BS	67-64-1	Acetone	BSP	REC	115	%	70-130
MSM2885-BS	107-13-1	Acrylonitrile	BSP	REC	107	%	70-130
MSM2885-BS	71-43-2	Benzene	BSP	REC	105	%	70-130
MSM2885-BS	108-86-1	Bromobenzene	BSP	REC	105	%	70-130
MSM2885-BS	75-27-4	Bromodichloromethane	BSP	REC	108	%	70-130
MSM2885-BS	75-25-2	Bromoform	BSP	REC	102	%	70-130
MSM2885-BS	74-83-9	Bromomethane	BSP	REC	124	%	70-130
MSM2885-BS	78-93-3	2-Butanone (MEK)	BSP	REC	91	%	70-130
MSM2885-BS	104-51-8	n-Butylbenzene	BSP	REC	114	%	70-130
MSM2885-BS	135-98-8	sec-Butylbenzene	BSP	REC	112	%	70-130
MSM2885-BS	98-06-6	tert-Butylbenzene	BSP	REC	113	%	70-130
MSM2885-BS	75-15-0	Carbon disulfide	BSP	REC	75	%	70-130
MSM2885-BS	56-23-5	Carbon tetrachloride	BSP	REC	107	%	70-130
MSM2885-BS	108-90-7	Chlorobenzene	BSP	REC	105	%	70-130
MSM2885-BS	75-00-3	Chloroethane	BSP	REC	115	%	70-130
MSM2885-BS	67-66-3	Chloroform	BSP	REC	110	%	70-130
MSM2885-BS	74-87-3	Chloromethane	BSP	REC	122	%	70-130
MSM2885-BS	95-49-8	o-Chlorotoluene	BSP	REC	108	%	70-130
MSM2885-BS	106-43-4	p-Chlorotoluene	BSP	REC	108	%	70-130
MSM2885-BS	96-12-8	1,2-Dibromo-3-chloropropane	BSP	REC	99	%	70-130
MSM2885-BS	124-48-1	Dibromochloromethane	BSP	REC	103	%	70-130
MSM2885-BS	106-93-4	1,2-Dibromoethane	BSP	REC	105	%	70-130
MSM2885-BS	95-50-1	1,2-Dichlorobenzene	BSP	REC	108	%	70-130
MSM2885-BS	541-73-1	1,3-Dichlorobenzene	BSP	REC	107	%	70-130
MSM2885-BS	106-46-7	1,4-Dichlorobenzene	BSP	REC	105	%	70-130
MSM2885-BS	75-71-8	Dichlorodifluoromethane	BSP	REC	104	%	70-130
MSM2885-BS	75-34-3	1,1-Dichloroethane	BSP	REC	102	%	70-130
MSM2885-BS	107-06-2	1,2-Dichloroethane	BSP	REC	105	%	70-130
MSM2885-BS	75-35-4	1,1-Dichloroethene	BSP	REC	91	%	70-130
MSM2885-BS	156-59-2	cis-1,2-Dichloroethene	BSP	REC	112	%	70-130
MSM2885-BS	156-60-5	trans-1,2-Dichloroethene	BSP	REC	95	%	70-130
MSM2885-BS	78-87-5	1,2-Dichloropropane	BSP	REC	107	%	70-130
MSM2885-BS	142-28-9	1,3-Dichloropropane	BSP	REC	112	%	70-130
MSM2885-BS	594-20-7	2,2-Dichloropropane	BSP	REC	109	%	70-130
MSM2885-BS	563-58-6	1,1-Dichloropropene	BSP	REC	105	%	70-130
MSM2885-BS	10061-01-5	cis-1,3-Dichloropropene	BSP	REC	105	%	70-130
MSM2885-BS	10061-02-6	trans-1,3-Dichloropropene	BSP	REC	100	%	70-130
MSM2885-BS	100-41-4	Ethylbenzene	BSP	REC	110	%	70-130
MSM2885-BS	76-13-1	Freon 113	BSP	REC	100	%	70-130
MSM2885-BS	87-68-3	Hexachlorobutadiene	BSP	REC	106	%	70-130
MSM2885-BS	591-78-6	2-Hexanone	BSP	REC	121	%	70-130
MSM2885-BS	98-82-8	Isopropylbenzene	BSP	REC	109	%	70-130

* Sample used for QC is not from job MC47535

QC Evaluation: CT RCP Limits

Job Number: MC47535
Account: CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
Collected: 08/25/16

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
MSM2885-BS	99-87-6	p-Isopropyltoluene	BSP	REC	113	%	70-130
MSM2885-BS	1634-04-4	Methyl Tert Butyl Ether	BSP	REC	106	%	70-130
MSM2885-BS	108-10-1	4-Methyl-2-pentanone (MIBK)	BSP	REC	114	%	70-130
MSM2885-BS	74-95-3	Methylene bromide	BSP	REC	104	%	70-130
MSM2885-BS	75-09-2	Methylene chloride	BSP	REC	98	%	70-130
MSM2885-BS	91-20-3	Naphthalene	BSP	REC	95	%	70-130
MSM2885-BS	103-65-1	n-Propylbenzene	BSP	REC	108	%	70-130
MSM2885-BS	100-42-5	Styrene	BSP	REC	111	%	70-130
MSM2885-BS	630-20-6	1,1,1,2-Tetrachloroethane	BSP	REC	110	%	70-130
MSM2885-BS	79-34-5	1,1,2,2-Tetrachloroethane	BSP	REC	107	%	70-130
MSM2885-BS	127-18-4	Tetrachloroethene	BSP	REC	101	%	70-130
MSM2885-BS	109-99-9	Tetrahydrofuran	BSP	REC	94	%	70-130
MSM2885-BS	108-88-3	Toluene	BSP	REC	106	%	70-130
MSM2885-BS	110-57-6	Trans-1,4-Dichloro-2-Butene	BSP	REC	106	%	70-130
MSM2885-BS	87-61-6	1,2,3-Trichlorobenzene	BSP	REC	105	%	70-130
MSM2885-BS	120-82-1	1,2,4-Trichlorobenzene	BSP	REC	103	%	70-130
MSM2885-BS	71-55-6	1,1,1-Trichloroethane	BSP	REC	112	%	70-130
MSM2885-BS	79-00-5	1,1,2-Trichloroethane	BSP	REC	110	%	70-130
MSM2885-BS	79-01-6	Trichloroethene	BSP	REC	106	%	70-130
MSM2885-BS	75-69-4	Trichlorofluoromethane	BSP	REC	105	%	70-130
MSM2885-BS	96-18-4	1,2,3-Trichloropropane	BSP	REC	103	%	70-130
MSM2885-BS	95-63-6	1,2,4-Trimethylbenzene	BSP	REC	110	%	70-130
MSM2885-BS	108-67-8	1,3,5-Trimethylbenzene	BSP	REC	115	%	70-130
MSM2885-BS	75-01-4	Vinyl chloride	BSP	REC	96	%	70-130
MSM2885-BS		m,p-Xylene	BSP	REC	111	%	70-130
MSM2885-BS	95-47-6	o-Xylene	BSP	REC	110	%	70-130
MSM2885-BS	1868-53-7	Dibromofluoromethane	BSP	SURR	102	%	70-130
MSM2885-BS	2037-26-5	Toluene-D8	BSP	SURR	101	%	70-130
MSM2885-BS	460-00-4	4-Bromofluorobenzene	BSP	SURR	93	%	70-130
MSM2885-MB	1868-53-7	Dibromofluoromethane	MB	SURR	107	%	70-130
MSM2885-MB	2037-26-5	Toluene-D8	MB	SURR	103	%	70-130
MSM2885-MB	460-00-4	4-Bromofluorobenzene	MB	SURR	107	%	70-130
MC47535-1	1868-53-7	Dibromofluoromethane	SAMP	SURR	109	%	70-130
MC47535-1	2037-26-5	Toluene-D8	SAMP	SURR	103	%	70-130
MC47535-1	460-00-4	4-Bromofluorobenzene	SAMP	SURR	108	%	70-130
MC47535-2	1868-53-7	Dibromofluoromethane	SAMP	SURR	108	%	70-130
MC47535-2	2037-26-5	Toluene-D8	SAMP	SURR	102	%	70-130
MC47535-2	460-00-4	4-Bromofluorobenzene	SAMP	SURR	109	%	70-130
MC47535-3	1868-53-7	Dibromofluoromethane	SAMP	SURR	109	%	70-130
MC47535-3	2037-26-5	Toluene-D8	SAMP	SURR	103	%	70-130
MC47535-3	460-00-4	4-Bromofluorobenzene	SAMP	SURR	109	%	70-130
MC47535-4	1868-53-7	Dibromofluoromethane	SAMP	SURR	111	%	70-130
MC47535-4	2037-26-5	Toluene-D8	SAMP	SURR	101	%	70-130
MC47535-4	460-00-4	4-Bromofluorobenzene	SAMP	SURR	107	%	70-130
MC47535-5	1868-53-7	Dibromofluoromethane	SAMP	SURR	110	%	70-130

* Sample used for QC is not from job MC47535

5.4
5

QC Evaluation: CT RCP Limits

Job Number: MC47535
Account: CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
Collected: 08/25/16

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
MC47535-5	2037-26-5	Toluene-D8	SAMP	SURR	101	%	70-130
MC47535-5	460-00-4	4-Bromofluorobenzene	SAMP	SURR	109	%	70-130
MC47535-6	1868-53-7	Dibromofluoromethane	SAMP	SURR	111	%	70-130
MC47535-6	2037-26-5	Toluene-D8	SAMP	SURR	102	%	70-130
MC47535-6	460-00-4	4-Bromofluorobenzene	SAMP	SURR	108	%	70-130
MC47535-7	1868-53-7	Dibromofluoromethane	SAMP	SURR	113	%	70-130
MC47535-7	2037-26-5	Toluene-D8	SAMP	SURR	103	%	70-130
MC47535-7	460-00-4	4-Bromofluorobenzene	SAMP	SURR	109	%	70-130
MC47535-8	1868-53-7	Dibromofluoromethane	SAMP	SURR	108	%	70-130
MC47535-8	2037-26-5	Toluene-D8	SAMP	SURR	102	%	70-130
MC47535-8	460-00-4	4-Bromofluorobenzene	SAMP	SURR	107	%	70-130
MC47535-9	1868-53-7	Dibromofluoromethane	SAMP	SURR	109	%	70-130
MC47535-9	2037-26-5	Toluene-D8	SAMP	SURR	102	%	70-130
MC47535-9	460-00-4	4-Bromofluorobenzene	SAMP	SURR	108	%	70-130

MSN3826 SW846 8260C

MSN3826-BS	67-64-1	Acetone	BSP	REC	120	%	70-130
MSN3826-BS	107-13-1	Acrylonitrile	BSP	REC	107	%	70-130
MSN3826-BS	71-43-2	Benzene	BSP	REC	99	%	70-130
MSN3826-BS	108-86-1	Bromobenzene	BSP	REC	105	%	70-130
MSN3826-BS	75-27-4	Bromodichloromethane	BSP	REC	108	%	70-130
MSN3826-BS	75-25-2	Bromoform	BSP	REC	108	%	70-130
MSN3826-BS	74-83-9	Bromomethane	BSP	REC	114	%	70-130
MSN3826-BS	78-93-3	2-Butanone (MEK)	BSP	REC	114	%	70-130
MSN3826-BS	104-51-8	n-Butylbenzene	BSP	REC	120	%	70-130
MSN3826-BS	135-98-8	sec-Butylbenzene	BSP	REC	115	%	70-130
MSN3826-BS	98-06-6	tert-Butylbenzene	BSP	REC	111	%	70-130
MSN3826-BS	75-15-0	Carbon disulfide	BSP	REC	74	%	70-130
MSN3826-BS	56-23-5	Carbon tetrachloride	BSP	REC	106	%	70-130
MSN3826-BS	108-90-7	Chlorobenzene	BSP	REC	111	%	70-130
MSN3826-BS	75-00-3	Chloroethane	BSP	REC	95	%	70-130
MSN3826-BS	67-66-3	Chloroform	BSP	REC	106	%	70-130
MSN3826-BS	74-87-3	Chloromethane	BSP	REC	111	%	70-130
MSN3826-BS	95-49-8	o-Chlorotoluene	BSP	REC	102	%	70-130
MSN3826-BS	106-43-4	p-Chlorotoluene	BSP	REC	106	%	70-130
MSN3826-BS	96-12-8	1,2-Dibromo-3-chloropropane	BSP	REC	113	%	70-130
MSN3826-BS	124-48-1	Dibromochloromethane	BSP	REC	124	%	70-130
MSN3826-BS	106-93-4	1,2-Dibromoethane	BSP	REC	119	%	70-130
MSN3826-BS	95-50-1	1,2-Dichlorobenzene	BSP	REC	112	%	70-130
MSN3826-BS	541-73-1	1,3-Dichlorobenzene	BSP	REC	109	%	70-130
MSN3826-BS	106-46-7	1,4-Dichlorobenzene	BSP	REC	109	%	70-130
MSN3826-BS	75-71-8	Dichlorodifluoromethane	BSP	REC	108	%	70-130
MSN3826-BS	75-34-3	1,1-Dichloroethane	BSP	REC	95	%	70-130
MSN3826-BS	107-06-2	1,2-Dichloroethane	BSP	REC	98	%	70-130

* Sample used for QC is not from job MC47535

5.4
5

QC Evaluation: CT RCP Limits

Job Number: MC47535
Account: CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
Collected: 08/25/16

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
MSN3826-BS	75-35-4	1,1-Dichloroethene	BSP	REC	90	%	70-130
MSN3826-BS	156-59-2	cis-1,2-Dichloroethene	BSP	REC	109	%	70-130
MSN3826-BS	156-60-5	trans-1,2-Dichloroethene	BSP	REC	89	%	70-130
MSN3826-BS	78-87-5	1,2-Dichloropropane	BSP	REC	100	%	70-130
MSN3826-BS	142-28-9	1,3-Dichloropropane	BSP	REC	116	%	70-130
MSN3826-BS	594-20-7	2,2-Dichloropropane	BSP	REC	106	%	70-130
MSN3826-BS	563-58-6	1,1-Dichloropropene	BSP	REC	104	%	70-130
MSN3826-BS	10061-01-5	cis-1,3-Dichloropropene	BSP	REC	106	%	70-130
MSN3826-BS	10061-02-6	trans-1,3-Dichloropropene	BSP	REC	100	%	70-130
MSN3826-BS	100-41-4	Ethylbenzene	BSP	REC	111	%	70-130
MSN3826-BS	76-13-1	Freon 113	BSP	REC	95	%	70-130
MSN3826-BS	87-68-3	Hexachlorobutadiene	BSP	REC	133	%	70-130
MSN3826-BS	591-78-6	2-Hexanone	BSP	REC	137	%	70-130
MSN3826-BS	98-82-8	Isopropylbenzene	BSP	REC	104	%	70-130
MSN3826-BS	99-87-6	p-Isopropyltoluene	BSP	REC	119	%	70-130
MSN3826-BS	1634-04-4	Methyl Tert Butyl Ether	BSP	REC	105	%	70-130
MSN3826-BS	108-10-1	4-Methyl-2-pentanone (MIBK)	BSP	REC	119	%	70-130
MSN3826-BS	74-95-3	Methylene bromide	BSP	REC	104	%	70-130
MSN3826-BS	75-09-2	Methylene chloride	BSP	REC	93	%	70-130
MSN3826-BS	91-20-3	Naphthalene	BSP	REC	116	%	70-130
MSN3826-BS	103-65-1	n-Propylbenzene	BSP	REC	107	%	70-130
MSN3826-BS	100-42-5	Styrene	BSP	REC	120	%	70-130
MSN3826-BS	630-20-6	1,1,1,2-Tetrachloroethane	BSP	REC	119	%	70-130
MSN3826-BS	79-34-5	1,1,2,2-Tetrachloroethane	BSP	REC	111	%	70-130
MSN3826-BS	127-18-4	Tetrachloroethene	BSP	REC	111	%	70-130
MSN3826-BS	109-99-9	Tetrahydrofuran	BSP	REC	96	%	70-130
MSN3826-BS	108-88-3	Toluene	BSP	REC	107	%	70-130
MSN3826-BS	110-57-6	Trans-1,4-Dichloro-2-Butene	BSP	REC	128	%	70-130
MSN3826-BS	87-61-6	1,2,3-Trichlorobenzene	BSP	REC	128	%	70-130
MSN3826-BS	120-82-1	1,2,4-Trichlorobenzene	BSP	REC	119	%	70-130
MSN3826-BS	71-55-6	1,1,1-Trichloroethane	BSP	REC	107	%	70-130
MSN3826-BS	79-00-5	1,1,2-Trichloroethane	BSP	REC	111	%	70-130
MSN3826-BS	79-01-6	Trichloroethene	BSP	REC	103	%	70-130
MSN3826-BS	75-69-4	Trichlorofluoromethane	BSP	REC	103	%	70-130
MSN3826-BS	96-18-4	1,2,3-Trichloropropane	BSP	REC	109	%	70-130
MSN3826-BS	95-63-6	1,2,4-Trimethylbenzene	BSP	REC	107	%	70-130
MSN3826-BS	108-67-8	1,3,5-Trimethylbenzene	BSP	REC	107	%	70-130
MSN3826-BS	75-01-4	Vinyl chloride	BSP	REC	92	%	70-130
MSN3826-BS		m,p-Xylene	BSP	REC	115	%	70-130
MSN3826-BS	95-47-6	o-Xylene	BSP	REC	116	%	70-130
MSN3826-BS	1868-53-7	Dibromofluoromethane	BSP	SURR	102	%	70-130
MSN3826-BS	2037-26-5	Toluene-D8	BSP	SURR	97	%	70-130
MSN3826-BS	460-00-4	4-Bromofluorobenzene	BSP	SURR	87	%	70-130
MSN3826-BSD	67-64-1	Acetone	BSD	REC	122	%	70-130
MSN3826-BSD	67-64-1	Acetone	BSD	RPD	2	%	20

* Sample used for QC is not from job MC47535

QC Evaluation: CT RCP Limits

Job Number: MC47535
Account: CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
Collected: 08/25/16

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
MSN3826-BSD	107-13-1	Acrylonitrile	BSD	REC	107	%	70-130
MSN3826-BSD	107-13-1	Acrylonitrile	BSD	RPD	0	%	20
MSN3826-BSD	71-43-2	Benzene	BSD	REC	96	%	70-130
MSN3826-BSD	71-43-2	Benzene	BSD	RPD	3	%	20
MSN3826-BSD	108-86-1	Bromobenzene	BSD	REC	104	%	70-130
MSN3826-BSD	108-86-1	Bromobenzene	BSD	RPD	1	%	20
MSN3826-BSD	75-27-4	Bromodichloromethane	BSD	REC	105	%	70-130
MSN3826-BSD	75-27-4	Bromodichloromethane	BSD	RPD	3	%	20
MSN3826-BSD	75-25-2	Bromoform	BSD	REC	107	%	70-130
MSN3826-BSD	75-25-2	Bromoform	BSD	RPD	1	%	20
MSN3826-BSD	74-83-9	Bromomethane	BSD	REC	104	%	70-130
MSN3826-BSD	74-83-9	Bromomethane	BSD	RPD	9	%	20
MSN3826-BSD	78-93-3	2-Butanone (MEK)	BSD	REC	118	%	70-130
MSN3826-BSD	78-93-3	2-Butanone (MEK)	BSD	RPD	3	%	20
MSN3826-BSD	104-51-8	n-Butylbenzene	BSD	REC	112	%	70-130
MSN3826-BSD	104-51-8	n-Butylbenzene	BSD	RPD	7	%	20
MSN3826-BSD	135-98-8	sec-Butylbenzene	BSD	REC	110	%	70-130
MSN3826-BSD	135-98-8	sec-Butylbenzene	BSD	RPD	4	%	20
MSN3826-BSD	98-06-6	tert-Butylbenzene	BSD	REC	108	%	70-130
MSN3826-BSD	98-06-6	tert-Butylbenzene	BSD	RPD	3	%	20
MSN3826-BSD	75-15-0	Carbon disulfide	BSD	REC	72	%	70-130
MSN3826-BSD	75-15-0	Carbon disulfide	BSD	RPD	3	%	20
MSN3826-BSD	56-23-5	Carbon tetrachloride	BSD	REC	105	%	70-130
MSN3826-BSD	56-23-5	Carbon tetrachloride	BSD	RPD	1	%	20
MSN3826-BSD	108-90-7	Chlorobenzene	BSD	REC	108	%	70-130
MSN3826-BSD	108-90-7	Chlorobenzene	BSD	RPD	3	%	20
MSN3826-BSD	75-00-3	Chloroethane	BSD	REC	91	%	70-130
MSN3826-BSD	75-00-3	Chloroethane	BSD	RPD	5	%	20
MSN3826-BSD	67-66-3	Chloroform	BSD	REC	102	%	70-130
MSN3826-BSD	67-66-3	Chloroform	BSD	RPD	4	%	20
MSN3826-BSD	74-87-3	Chloromethane	BSD	REC	106	%	70-130
MSN3826-BSD	74-87-3	Chloromethane	BSD	RPD	5	%	20
MSN3826-BSD	95-49-8	o-Chlorotoluene	BSD	REC	101	%	70-130
MSN3826-BSD	95-49-8	o-Chlorotoluene	BSD	RPD	1	%	20
MSN3826-BSD	106-43-4	p-Chlorotoluene	BSD	REC	104	%	70-130
MSN3826-BSD	106-43-4	p-Chlorotoluene	BSD	RPD	2	%	20
MSN3826-BSD	96-12-8	1,2-Dibromo-3-chloropropane	BSD	REC	118	%	70-130
MSN3826-BSD	96-12-8	1,2-Dibromo-3-chloropropane	BSD	RPD	4	%	20
MSN3826-BSD	124-48-1	Dibromochloromethane	BSD	REC	120	%	70-130
MSN3826-BSD	124-48-1	Dibromochloromethane	BSD	RPD	4	%	20
MSN3826-BSD	106-93-4	1,2-Dibromoethane	BSD	REC	119	%	70-130
MSN3826-BSD	106-93-4	1,2-Dibromoethane	BSD	RPD	1	%	20
MSN3826-BSD	95-50-1	1,2-Dichlorobenzene	BSD	REC	111	%	70-130
MSN3826-BSD	95-50-1	1,2-Dichlorobenzene	BSD	RPD	1	%	20
MSN3826-BSD	541-73-1	1,3-Dichlorobenzene	BSD	REC	108	%	70-130

* Sample used for QC is not from job MC47535

5.4
5

QC Evaluation: CT RCP Limits

Job Number: MC47535
Account: CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
Collected: 08/25/16

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
MSN3826-BSD	541-73-1	1,3-Dichlorobenzene	BSD	RPD	2	%	20
MSN3826-BSD	106-46-7	1,4-Dichlorobenzene	BSD	REC	107	%	70-130
MSN3826-BSD	106-46-7	1,4-Dichlorobenzene	BSD	RPD	3	%	20
MSN3826-BSD	75-71-8	Dichlorodifluoromethane	BSD	REC	102	%	70-130
MSN3826-BSD	75-71-8	Dichlorodifluoromethane	BSD	RPD	6	%	20
MSN3826-BSD	75-34-3	1,1-Dichloroethane	BSD	REC	92	%	70-130
MSN3826-BSD	75-34-3	1,1-Dichloroethane	BSD	RPD	3	%	20
MSN3826-BSD	107-06-2	1,2-Dichloroethane	BSD	REC	97	%	70-130
MSN3826-BSD	107-06-2	1,2-Dichloroethane	BSD	RPD	1	%	20
MSN3826-BSD	75-35-4	1,1-Dichloroethene	BSD	REC	86	%	70-130
MSN3826-BSD	75-35-4	1,1-Dichloroethene	BSD	RPD	4	%	20
MSN3826-BSD	156-59-2	cis-1,2-Dichloroethene	BSD	REC	104	%	70-130
MSN3826-BSD	156-59-2	cis-1,2-Dichloroethene	BSD	RPD	4	%	20
MSN3826-BSD	156-60-5	trans-1,2-Dichloroethene	BSD	REC	86	%	70-130
MSN3826-BSD	156-60-5	trans-1,2-Dichloroethene	BSD	RPD	3	%	20
MSN3826-BSD	78-87-5	1,2-Dichloropropane	BSD	REC	98	%	70-130
MSN3826-BSD	78-87-5	1,2-Dichloropropane	BSD	RPD	2	%	20
MSN3826-BSD	142-28-9	1,3-Dichloropropane	BSD	REC	115	%	70-130
MSN3826-BSD	142-28-9	1,3-Dichloropropane	BSD	RPD	1	%	20
MSN3826-BSD	594-20-7	2,2-Dichloropropane	BSD	REC	100	%	70-130
MSN3826-BSD	594-20-7	2,2-Dichloropropane	BSD	RPD	5	%	20
MSN3826-BSD	563-58-6	1,1-Dichloropropene	BSD	REC	100	%	70-130
MSN3826-BSD	563-58-6	1,1-Dichloropropene	BSD	RPD	4	%	20
MSN3826-BSD	10061-01-5	cis-1,3-Dichloropropene	BSD	REC	103	%	70-130
MSN3826-BSD	10061-01-5	cis-1,3-Dichloropropene	BSD	RPD	3	%	20
MSN3826-BSD	10061-02-6	trans-1,3-Dichloropropene	BSD	REC	99	%	70-130
MSN3826-BSD	10061-02-6	trans-1,3-Dichloropropene	BSD	RPD	1	%	20
MSN3826-BSD	100-41-4	Ethylbenzene	BSD	REC	109	%	70-130
MSN3826-BSD	100-41-4	Ethylbenzene	BSD	RPD	2	%	20
MSN3826-BSD	76-13-1	Freon 113	BSD	REC	91	%	70-130
MSN3826-BSD	76-13-1	Freon 113	BSD	RPD	4	%	20
MSN3826-BSD	87-68-3	Hexachlorobutadiene	BSD	REC	128	%	70-130
MSN3826-BSD	87-68-3	Hexachlorobutadiene	BSD	RPD	4	%	20
MSN3826-BSD	591-78-6	2-Hexanone	BSD	REC	137	%	70-130
MSN3826-BSD	591-78-6	2-Hexanone	BSD	RPD	0	%	20
MSN3826-BSD	98-82-8	Isopropylbenzene	BSD	REC	105	%	70-130
MSN3826-BSD	98-82-8	Isopropylbenzene	BSD	RPD	1	%	20
MSN3826-BSD	99-87-6	p-Isopropyltoluene	BSD	REC	112	%	70-130
MSN3826-BSD	99-87-6	p-Isopropyltoluene	BSD	RPD	6	%	20
MSN3826-BSD	1634-04-4	Methyl Tert Butyl Ether	BSD	REC	105	%	70-130
MSN3826-BSD	1634-04-4	Methyl Tert Butyl Ether	BSD	RPD	0	%	20
MSN3826-BSD	108-10-1	4-Methyl-2-pentanone (MIBK)	BSD	REC	121	%	70-130
MSN3826-BSD	108-10-1	4-Methyl-2-pentanone (MIBK)	BSD	RPD	1	%	20
MSN3826-BSD	74-95-3	Methylene bromide	BSD	REC	102	%	70-130
MSN3826-BSD	74-95-3	Methylene bromide	BSD	RPD	2	%	20

* Sample used for QC is not from job MC47535

5.4
5

QC Evaluation: CT RCP Limits

Job Number: MC47535
Account: CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
Collected: 08/25/16

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
MSN3826-BSD	75-09-2	Methylene chloride	BSD	REC	89	%	70-130
MSN3826-BSD	75-09-2	Methylene chloride	BSD	RPD	4	%	20
MSN3826-BSD	91-20-3	Naphthalene	BSD	REC	116	%	70-130
MSN3826-BSD	91-20-3	Naphthalene	BSD	RPD	0	%	20
MSN3826-BSD	103-65-1	n-Propylbenzene	BSD	REC	104	%	70-130
MSN3826-BSD	103-65-1	n-Propylbenzene	BSD	RPD	3	%	20
MSN3826-BSD	100-42-5	Styrene	BSD	REC	117	%	70-130
MSN3826-BSD	100-42-5	Styrene	BSD	RPD	3	%	20
MSN3826-BSD	630-20-6	1,1,1,2-Tetrachloroethane	BSD	REC	115	%	70-130
MSN3826-BSD	630-20-6	1,1,1,2-Tetrachloroethane	BSD	RPD	3	%	20
MSN3826-BSD	79-34-5	1,1,2,2-Tetrachloroethane	BSD	REC	113	%	70-130
MSN3826-BSD	79-34-5	1,1,2,2-Tetrachloroethane	BSD	RPD	2	%	20
MSN3826-BSD	127-18-4	Tetrachloroethene	BSD	REC	107	%	70-130
MSN3826-BSD	127-18-4	Tetrachloroethene	BSD	RPD	4	%	20
MSN3826-BSD	109-99-9	Tetrahydrofuran	BSD	REC	98	%	70-130
MSN3826-BSD	109-99-9	Tetrahydrofuran	BSD	RPD	2	%	20
MSN3826-BSD	108-88-3	Toluene	BSD	REC	104	%	70-130
MSN3826-BSD	108-88-3	Toluene	BSD	RPD	3	%	20
MSN3826-BSD	110-57-6	Trans-1,4-Dichloro-2-Butene	BSD	REC	127	%	70-130
MSN3826-BSD	110-57-6	Trans-1,4-Dichloro-2-Butene	BSD	RPD	0	%	20
MSN3826-BSD	87-61-6	1,2,3-Trichlorobenzene	BSD	REC	127	%	70-130
MSN3826-BSD	87-61-6	1,2,3-Trichlorobenzene	BSD	RPD	1	%	25
MSN3826-BSD	120-82-1	1,2,4-Trichlorobenzene	BSD	REC	117	%	70-130
MSN3826-BSD	120-82-1	1,2,4-Trichlorobenzene	BSD	RPD	2	%	20
MSN3826-BSD	71-55-6	1,1,1-Trichloroethane	BSD	REC	105	%	70-130
MSN3826-BSD	71-55-6	1,1,1-Trichloroethane	BSD	RPD	2	%	20
MSN3826-BSD	79-00-5	1,1,2-Trichloroethane	BSD	REC	109	%	70-130
MSN3826-BSD	79-00-5	1,1,2-Trichloroethane	BSD	RPD	1	%	20
MSN3826-BSD	79-01-6	Trichloroethene	BSD	REC	99	%	70-130
MSN3826-BSD	79-01-6	Trichloroethene	BSD	RPD	4	%	20
MSN3826-BSD	75-69-4	Trichlorofluoromethane	BSD	REC	100	%	70-130
MSN3826-BSD	75-69-4	Trichlorofluoromethane	BSD	RPD	3	%	20
MSN3826-BSD	96-18-4	1,2,3-Trichloropropane	BSD	REC	111	%	70-130
MSN3826-BSD	96-18-4	1,2,3-Trichloropropane	BSD	RPD	2	%	20
MSN3826-BSD	95-63-6	1,2,4-Trimethylbenzene	BSD	REC	104	%	70-130
MSN3826-BSD	95-63-6	1,2,4-Trimethylbenzene	BSD	RPD	3	%	20
MSN3826-BSD	108-67-8	1,3,5-Trimethylbenzene	BSD	REC	105	%	70-130
MSN3826-BSD	108-67-8	1,3,5-Trimethylbenzene	BSD	RPD	1	%	20
MSN3826-BSD	75-01-4	Vinyl chloride	BSD	REC	89	%	70-130
MSN3826-BSD	75-01-4	Vinyl chloride	BSD	RPD	3	%	20
MSN3826-BSD		m,p-Xylene	BSD	REC	111	%	70-130
MSN3826-BSD		m,p-Xylene	BSD	RPD	4	%	20
MSN3826-BSD	95-47-6	o-Xylene	BSD	REC	112	%	70-130
MSN3826-BSD	95-47-6	o-Xylene	BSD	RPD	3	%	20
MSN3826-BSD	1868-53-7	Dibromofluoromethane	BSD	SURR	101	%	70-130

* Sample used for QC is not from job MC47535

5.4
5

QC Evaluation: CT RCP Limits

Job Number: MC47535
Account: CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
Collected: 08/25/16

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
MSN3826-BSD	2037-26-5	Toluene-D8	BSD	SURR	97	%	70-130
MSN3826-BSD	460-00-4	4-Bromofluorobenzene	BSD	SURR	89	%	70-130
MSN3826-MB	1868-53-7	Dibromofluoromethane	MB	SURR	99	%	70-130
MSN3826-MB	2037-26-5	Toluene-D8	MB	SURR	99	%	70-130
MSN3826-MB	460-00-4	4-Bromofluorobenzene	MB	SURR	92	%	70-130
MC47535-10	1868-53-7	Dibromofluoromethane	SAMP	SURR	100	%	70-130
MC47535-10	2037-26-5	Toluene-D8	SAMP	SURR	98	%	70-130
MC47535-10	460-00-4	4-Bromofluorobenzene	SAMP	SURR	94	%	70-130
MC47535-11	1868-53-7	Dibromofluoromethane	SAMP	SURR	101	%	70-130
MC47535-11	2037-26-5	Toluene-D8	SAMP	SURR	98	%	70-130
MC47535-11	460-00-4	4-Bromofluorobenzene	SAMP	SURR	95	%	70-130
MC47535-12	1868-53-7	Dibromofluoromethane	SAMP	SURR	100	%	70-130
MC47535-12	2037-26-5	Toluene-D8	SAMP	SURR	98	%	70-130
MC47535-12	460-00-4	4-Bromofluorobenzene	SAMP	SURR	94	%	70-130

OP48551 SW846 8270D

OP48551-BS	95-57-8	2-Chlorophenol	BSP	REC	84	%	30-130
OP48551-BS	59-50-7	4-Chloro-3-methyl phenol	BSP	REC	96	%	30-130
OP48551-BS	120-83-2	2,4-Dichlorophenol	BSP	REC	86	%	30-130
OP48551-BS	105-67-9	2,4-Dimethylphenol	BSP	REC	90	%	30-130
OP48551-BS	51-28-5	2,4-Dinitrophenol	BSP	REC	167 ^a	%	30-130
OP48551-BS	534-52-1	4,6-Dinitro-o-cresol	BSP	REC	161 ^a	%	30-130
OP48551-BS	95-48-7	2-Methylphenol	BSP	REC	82	%	30-130
OP48551-BS	106-44-5	4-Methylphenol	BSP	REC	85	%	30-130
OP48551-BS	88-75-5	2-Nitrophenol	BSP	REC	104	%	30-130
OP48551-BS	100-02-7	4-Nitrophenol	BSP	REC	110	%	30-130
OP48551-BS	87-86-5	Pentachlorophenol	BSP	REC	100	%	30-130
OP48551-BS	108-95-2	Phenol	BSP	REC	82	%	30-130
OP48551-BS	95-95-4	2,4,5-Trichlorophenol	BSP	REC	90	%	30-130
OP48551-BS	88-06-2	2,4,6-Trichlorophenol	BSP	REC	91	%	30-130
OP48551-BS	83-32-9	Acenaphthene	BSP	REC	90	%	40-140
OP48551-BS	208-96-8	Acenaphthylene	BSP	REC	69	%	40-140
OP48551-BS	62-53-3	Aniline	BSP	REC	55	%	40-140
OP48551-BS	120-12-7	Anthracene	BSP	REC	83	%	40-140
OP48551-BS	56-55-3	Benzo(a)anthracene	BSP	REC	90	%	40-140
OP48551-BS	50-32-8	Benzo(a)pyrene	BSP	REC	84	%	40-140
OP48551-BS	205-99-2	Benzo(b)fluoranthene	BSP	REC	86	%	40-140
OP48551-BS	191-24-2	Benzo(g,h,i)perylene	BSP	REC	82	%	40-140
OP48551-BS	207-08-9	Benzo(k)fluoranthene	BSP	REC	84	%	40-140
OP48551-BS	101-55-3	4-Bromophenyl phenyl ether	BSP	REC	86	%	40-140
OP48551-BS	85-68-7	Butyl benzyl phthalate	BSP	REC	115	%	40-140
OP48551-BS	91-58-7	2-Chloronaphthalene	BSP	REC	84	%	40-140
OP48551-BS	106-47-8	4-Chloroaniline	BSP	REC	47	%	40-140
OP48551-BS	86-74-8	Carbazole	BSP	REC	93	%	40-140

* Sample used for QC is not from job MC47535

5.4
5

QC Evaluation: CT RCP Limits

Job Number: MC47535
Account: CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
Collected: 08/25/16

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
OP48551-BS	218-01-9	Chrysene	BSP	REC	86	%	40-140
OP48551-BS	111-91-1	bis(2-Chloroethoxy)methane	BSP	REC	75	%	40-140
OP48551-BS	111-44-4	bis(2-Chloroethyl)ether	BSP	REC	80	%	40-140
OP48551-BS	108-60-1	bis(2-Chloroisopropyl)ether	BSP	REC	89	%	40-140
OP48551-BS	7005-72-3	4-Chlorophenyl phenyl ether	BSP	REC	82	%	40-140
OP48551-BS	121-14-2	2,4-Dinitrotoluene	BSP	REC	108	%	40-140
OP48551-BS	606-20-2	2,6-Dinitrotoluene	BSP	REC	103	%	40-140
OP48551-BS	91-94-1	3,3'-Dichlorobenzidine	BSP	REC	62	%	40-140
OP48551-BS	53-70-3	Dibenzo(a,h)anthracene	BSP	REC	81	%	40-140
OP48551-BS	132-64-9	Dibenzofuran	BSP	REC	88	%	40-140
OP48551-BS	84-74-2	Di-n-butyl phthalate	BSP	REC	101	%	40-140
OP48551-BS	117-84-0	Di-n-octyl phthalate	BSP	REC	102	%	40-140
OP48551-BS	84-66-2	Diethyl phthalate	BSP	REC	96	%	40-140
OP48551-BS	131-11-3	Dimethyl phthalate	BSP	REC	90	%	40-140
OP48551-BS	117-81-7	bis(2-Ethylhexyl)phthalate	BSP	REC	103	%	40-140
OP48551-BS	206-44-0	Fluoranthene	BSP	REC	87	%	40-140
OP48551-BS	86-73-7	Fluorene	BSP	REC	91	%	40-140
OP48551-BS	118-74-1	Hexachlorobenzene	BSP	REC	84	%	40-140
OP48551-BS	87-68-3	Hexachlorobutadiene	BSP	REC	70	%	40-140
OP48551-BS	77-47-4	Hexachlorocyclopentadiene	BSP	REC	62	%	40-140
OP48551-BS	67-72-1	Hexachloroethane	BSP	REC	81	%	40-140
OP48551-BS	193-39-5	Indeno(1,2,3-cd)pyrene	BSP	REC	80	%	40-140
OP48551-BS	78-59-1	Isophorone	BSP	REC	77	%	40-140
OP48551-BS	91-57-6	2-Methylnaphthalene	BSP	REC	83	%	40-140
OP48551-BS	88-74-4	2-Nitroaniline	BSP	REC	110	%	40-140
OP48551-BS	99-09-2	3-Nitroaniline	BSP	REC	80	%	40-140
OP48551-BS	100-01-6	4-Nitroaniline	BSP	REC	101	%	40-140
OP48551-BS	91-20-3	Naphthalene	BSP	REC	79	%	40-140
OP48551-BS	98-95-3	Nitrobenzene	BSP	REC	88	%	40-140
OP48551-BS	621-64-7	N-Nitroso-di-n-propylamine	BSP	REC	83	%	40-140
OP48551-BS	86-30-6	N-Nitrosodiphenylamine	BSP	REC	84	%	40-140
OP48551-BS	82-68-8	Pentachloronitrobenzene	BSP	REC	95	%	40-140
OP48551-BS	85-01-8	Phenanthrene	BSP	REC	86	%	40-140
OP48551-BS	129-00-0	Pyrene	BSP	REC	92	%	40-140
OP48551-BS	110-86-1	Pyridine	BSP	REC	48	%	40-140
OP48551-BS	95-94-3	1,2,4,5-Tetrachlorobenzene	BSP	REC	72	%	40-140
OP48551-BS	120-82-1	1,2,4-Trichlorobenzene	BSP	REC	71	%	40-140
OP48551-BS	367-12-4	2-Fluorophenol	BSP	SURR	83	%	30-130
OP48551-BS	4165-62-2	Phenol-d5	BSP	SURR	83	%	30-130
OP48551-BS	118-79-6	2,4,6-Tribromophenol	BSP	SURR	110	%	30-130
OP48551-BS	4165-60-0	Nitrobenzene-d5	BSP	SURR	88	%	30-130
OP48551-BS	321-60-8	2-Fluorobiphenyl	BSP	SURR	88	%	30-130
OP48551-BS	1718-51-0	Terphenyl-d14	BSP	SURR	98	%	30-130
OP48551-MB	367-12-4	2-Fluorophenol	MB	SURR	80	%	30-130
OP48551-MB	4165-62-2	Phenol-d5	MB	SURR	79	%	30-130

* Sample used for QC is not from job MC47535

QC Evaluation: CT RCP Limits

Job Number: MC47535
Account: CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
Collected: 08/25/16

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
OP48551-MB	118-79-6	2,4,6-Tribromophenol	MB	SURR	105	%	30-130
OP48551-MB	4165-60-0	Nitrobenzene-d5	MB	SURR	83	%	30-130
OP48551-MB	321-60-8	2-Fluorobiphenyl	MB	SURR	86	%	30-130
OP48551-MB	1718-51-0	Terphenyl-d14	MB	SURR	99	%	30-130
MC47535-1	367-12-4	2-Fluorophenol	SAMP	SURR	66	%	30-130
MC47535-1	4165-62-2	Phenol-d5	SAMP	SURR	67	%	30-130
MC47535-1	118-79-6	2,4,6-Tribromophenol	SAMP	SURR	91	%	30-130
MC47535-1	4165-60-0	Nitrobenzene-d5	SAMP	SURR	71	%	30-130
MC47535-1	321-60-8	2-Fluorobiphenyl	SAMP	SURR	71	%	30-130
MC47535-1	1718-51-0	Terphenyl-d14	SAMP	SURR	80	%	30-130
MC47535-2	367-12-4	2-Fluorophenol	SAMP	SURR	68	%	30-130
MC47535-2	4165-62-2	Phenol-d5	SAMP	SURR	69	%	30-130
MC47535-2	118-79-6	2,4,6-Tribromophenol	SAMP	SURR	93	%	30-130
MC47535-2	4165-60-0	Nitrobenzene-d5	SAMP	SURR	70	%	30-130
MC47535-2	321-60-8	2-Fluorobiphenyl	SAMP	SURR	72	%	30-130
MC47535-2	1718-51-0	Terphenyl-d14	SAMP	SURR	83	%	30-130
MC47535-3	367-12-4	2-Fluorophenol	SAMP	SURR	70	%	30-130
MC47535-3	4165-62-2	Phenol-d5	SAMP	SURR	70	%	30-130
MC47535-3	118-79-6	2,4,6-Tribromophenol	SAMP	SURR	98	%	30-130
MC47535-3	4165-60-0	Nitrobenzene-d5	SAMP	SURR	70	%	30-130
MC47535-3	321-60-8	2-Fluorobiphenyl	SAMP	SURR	74	%	30-130
MC47535-3	1718-51-0	Terphenyl-d14	SAMP	SURR	87	%	30-130
MC47535-4	367-12-4	2-Fluorophenol	SAMP	SURR	73	%	30-130
MC47535-4	4165-62-2	Phenol-d5	SAMP	SURR	73	%	30-130
MC47535-4	118-79-6	2,4,6-Tribromophenol	SAMP	SURR	79	%	30-130
MC47535-4	4165-60-0	Nitrobenzene-d5	SAMP	SURR	72	%	30-130
MC47535-4	321-60-8	2-Fluorobiphenyl	SAMP	SURR	75	%	30-130
MC47535-4	1718-51-0	Terphenyl-d14	SAMP	SURR	88	%	30-130
MC47535-5	367-12-4	2-Fluorophenol	SAMP	SURR	72	%	30-130
MC47535-5	4165-62-2	Phenol-d5	SAMP	SURR	75	%	30-130
MC47535-5	118-79-6	2,4,6-Tribromophenol	SAMP	SURR	97	%	30-130
MC47535-5	4165-60-0	Nitrobenzene-d5	SAMP	SURR	73	%	30-130
MC47535-5	321-60-8	2-Fluorobiphenyl	SAMP	SURR	76	%	30-130
MC47535-5	1718-51-0	Terphenyl-d14	SAMP	SURR	88	%	30-130
MC47535-6	367-12-4	2-Fluorophenol	SAMP	SURR	74	%	30-130
MC47535-6	4165-62-2	Phenol-d5	SAMP	SURR	79	%	30-130
MC47535-6	118-79-6	2,4,6-Tribromophenol	SAMP	SURR	97	%	30-130
MC47535-6	4165-60-0	Nitrobenzene-d5	SAMP	SURR	74	%	30-130
MC47535-6	321-60-8	2-Fluorobiphenyl	SAMP	SURR	74	%	30-130
MC47535-6	1718-51-0	Terphenyl-d14	SAMP	SURR	86	%	30-130
MC47535-7	367-12-4	2-Fluorophenol	SAMP	SURR	69	%	30-130
MC47535-7	4165-62-2	Phenol-d5	SAMP	SURR	72	%	30-130
MC47535-7	118-79-6	2,4,6-Tribromophenol	SAMP	SURR	93	%	30-130
MC47535-7	4165-60-0	Nitrobenzene-d5	SAMP	SURR	75	%	30-130
MC47535-7	321-60-8	2-Fluorobiphenyl	SAMP	SURR	70	%	30-130

* Sample used for QC is not from job MC47535

5.4
5

QC Evaluation: CT RCP Limits

Job Number: MC47535
Account: CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
Collected: 08/25/16

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
MC47535-7	1718-51-0	Terphenyl-d14	SAMP	SURR	83	%	30-130
MC47535-8	367-12-4	2-Fluorophenol	SAMP	SURR	74	%	30-130
MC47535-8	4165-62-2	Phenol-d5	SAMP	SURR	78	%	30-130
MC47535-8	118-79-6	2,4,6-Tribromophenol	SAMP	SURR	98	%	30-130
MC47535-8	4165-60-0	Nitrobenzene-d5	SAMP	SURR	75	%	30-130
MC47535-8	321-60-8	2-Fluorobiphenyl	SAMP	SURR	75	%	30-130
MC47535-8	1718-51-0	Terphenyl-d14	SAMP	SURR	88	%	30-130
MC47535-9	367-12-4	2-Fluorophenol	SAMP	SURR	70	%	30-130
MC47535-9	4165-62-2	Phenol-d5	SAMP	SURR	72	%	30-130
MC47535-9	118-79-6	2,4,6-Tribromophenol	SAMP	SURR	91	%	30-130
MC47535-9	4165-60-0	Nitrobenzene-d5	SAMP	SURR	69	%	30-130
MC47535-9	321-60-8	2-Fluorobiphenyl	SAMP	SURR	73	%	30-130
MC47535-9	1718-51-0	Terphenyl-d14	SAMP	SURR	86	%	30-130
OP48571 SW846 8270D							
OP48571-BS	95-57-8	2-Chlorophenol	BSP	REC	65	%	30-130
OP48571-BS	59-50-7	4-Chloro-3-methyl phenol	BSP	REC	75	%	30-130
OP48571-BS	120-83-2	2,4-Dichlorophenol	BSP	REC	64	%	30-130
OP48571-BS	105-67-9	2,4-Dimethylphenol	BSP	REC	64	%	30-130
OP48571-BS	51-28-5	2,4-Dinitrophenol	BSP	REC	155 ^a	%	30-130
OP48571-BS	534-52-1	4,6-Dinitro-o-cresol	BSP	REC	144 ^a	%	30-130
OP48571-BS	95-48-7	2-Methylphenol	BSP	REC	55	%	30-130
OP48571-BS	106-44-5	4-Methylphenol	BSP	REC	52	%	30-130
OP48571-BS	88-75-5	2-Nitrophenol	BSP	REC	86	%	30-130
OP48571-BS	100-02-7	4-Nitrophenol	BSP	REC	44	%	30-130
OP48571-BS	87-86-5	Pentachlorophenol	BSP	REC	79	%	30-130
OP48571-BS	108-95-2	Phenol	BSP	REC	27	%	30-130
OP48571-BS	95-95-4	2,4,5-Trichlorophenol	BSP	REC	72	%	30-130
OP48571-BS	88-06-2	2,4,6-Trichlorophenol	BSP	REC	73	%	30-130
OP48571-BS	62-53-3	Aniline	BSP	REC	43	%	40-140
OP48571-BS	101-55-3	4-Bromophenyl phenyl ether	BSP	REC	71	%	40-140
OP48571-BS	85-68-7	Butyl benzyl phthalate	BSP	REC	95	%	40-140
OP48571-BS	91-58-7	2-Chloronaphthalene	BSP	REC	64	%	40-140
OP48571-BS	106-47-8	4-Chloroaniline	BSP	REC	67	%	40-140
OP48571-BS	86-74-8	Carbazole	BSP	REC	76	%	40-140
OP48571-BS	111-91-1	bis(2-Chloroethoxy)methane	BSP	REC	57	%	40-140
OP48571-BS	111-44-4	bis(2-Chloroethyl)ether	BSP	REC	62	%	40-140
OP48571-BS	108-60-1	bis(2-Chloroisopropyl)ether	BSP	REC	72	%	40-140
OP48571-BS	7005-72-3	4-Chlorophenyl phenyl ether	BSP	REC	67	%	40-140
OP48571-BS	121-14-2	2,4-Dinitrotoluene	BSP	REC	91	%	40-140
OP48571-BS	606-20-2	2,6-Dinitrotoluene	BSP	REC	88	%	40-140
OP48571-BS	91-94-1	3,3'-Dichlorobenzidine	BSP	REC	71	%	40-140
OP48571-BS	132-64-9	Dibenzofuran	BSP	REC	71	%	40-140
OP48571-BS	84-74-2	Di-n-butyl phthalate	BSP	REC	84	%	40-140

* Sample used for QC is not from job MC47535

5.4
5

QC Evaluation: CT RCP Limits

Job Number: MC47535
Account: CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
Collected: 08/25/16

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
OP48571-BS	117-84-0	Di-n-octyl phthalate	BSP	REC	84	%	40-140
OP48571-BS	84-66-2	Diethyl phthalate	BSP	REC	78	%	40-140
OP48571-BS	131-11-3	Dimethyl phthalate	BSP	REC	74	%	40-140
OP48571-BS	117-81-7	bis(2-Ethylhexyl)phthalate	BSP	REC	84	%	40-140
OP48571-BS	118-74-1	Hexachlorobenzene	BSP	REC	69	%	40-140
OP48571-BS	87-68-3	Hexachlorobutadiene	BSP	REC	52	%	40-140
OP48571-BS	77-47-4	Hexachlorocyclopentadiene	BSP	REC	40	%	40-140
OP48571-BS	67-72-1	Hexachloroethane	BSP	REC	60	%	40-140
OP48571-BS	78-59-1	Isophorone	BSP	REC	60	%	40-140
OP48571-BS	91-57-6	2-Methylnaphthalene	BSP	REC	62	%	40-140
OP48571-BS	88-74-4	2-Nitroaniline	BSP	REC	89	%	40-140
OP48571-BS	99-09-2	3-Nitroaniline	BSP	REC	90	%	40-140
OP48571-BS	100-01-6	4-Nitroaniline	BSP	REC	84	%	40-140
OP48571-BS	98-95-3	Nitrobenzene	BSP	REC	71	%	40-140
OP48571-BS	621-64-7	N-Nitroso-di-n-propylamine	BSP	REC	66	%	40-140
OP48571-BS	86-30-6	N-Nitrosodiphenylamine	BSP	REC	69	%	40-140
OP48571-BS	82-68-8	Pentachloronitrobenzene	BSP	REC	83	%	40-140
OP48571-BS	110-86-1	Pyridine	BSP	REC	14	%	40-140
OP48571-BS	95-94-3	1,2,4,5-Tetrachlorobenzene	BSP	REC	54	%	40-140
OP48571-BS	120-82-1	1,2,4-Trichlorobenzene	BSP	REC	53	%	40-140
OP48571-BS	367-12-4	2-Fluorophenol	BSP	SURR	40	%	15-110
OP48571-BS	4165-62-2	Phenol-d5	BSP	SURR	26	%	15-110
OP48571-BS	118-79-6	2,4,6-Tribromophenol	BSP	SURR	91	%	15-110
OP48571-BS	4165-60-0	Nitrobenzene-d5	BSP	SURR	71	%	30-130
OP48571-BS	321-60-8	2-Fluorobiphenyl	BSP	SURR	64	%	30-130
OP48571-BS	1718-51-0	Terphenyl-d14	BSP	SURR	75	%	30-130
OP48571-BSD	95-57-8	2-Chlorophenol	BSD	REC	71	%	30-130
OP48571-BSD	95-57-8	2-Chlorophenol	BSD	RPD	8	%	20
OP48571-BSD	59-50-7	4-Chloro-3-methyl phenol	BSD	REC	79	%	30-130
OP48571-BSD	59-50-7	4-Chloro-3-methyl phenol	BSD	RPD	5	%	20
OP48571-BSD	120-83-2	2,4-Dichlorophenol	BSD	REC	71	%	30-130
OP48571-BSD	120-83-2	2,4-Dichlorophenol	BSD	RPD	10	%	20
OP48571-BSD	105-67-9	2,4-Dimethylphenol	BSD	REC	70	%	30-130
OP48571-BSD	105-67-9	2,4-Dimethylphenol	BSD	RPD	9	%	20
OP48571-BSD	51-28-5	2,4-Dinitrophenol	BSD	REC	163 ^a	%	30-130
OP48571-BSD	51-28-5	2,4-Dinitrophenol	BSD	RPD	5	%	20
OP48571-BSD	534-52-1	4,6-Dinitro-o-cresol	BSD	REC	149 ^a	%	30-130
OP48571-BSD	534-52-1	4,6-Dinitro-o-cresol	BSD	RPD	3	%	20
OP48571-BSD	95-48-7	2-Methylphenol	BSD	REC	61	%	30-130
OP48571-BSD	95-48-7	2-Methylphenol	BSD	RPD	9	%	20
OP48571-BSD	106-44-5	4-Methylphenol	BSD	REC	57	%	30-130
OP48571-BSD	106-44-5	4-Methylphenol	BSD	RPD	8	%	20
OP48571-BSD	88-75-5	2-Nitrophenol	BSD	REC	96	%	30-130
OP48571-BSD	88-75-5	2-Nitrophenol	BSD	RPD	11	%	20
OP48571-BSD	100-02-7	4-Nitrophenol	BSD	REC	44	%	30-130

* Sample used for QC is not from job MC47535

QC Evaluation: CT RCP Limits

Job Number: MC47535
Account: CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
Collected: 08/25/16

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
OP48571-BSD	100-02-7	4-Nitrophenol	BSD	RPD	0	%	20
OP48571-BSD	87-86-5	Pentachlorophenol	BSD	REC	81	%	30-130
OP48571-BSD	87-86-5	Pentachlorophenol	BSD	RPD	2	%	20
OP48571-BSD	108-95-2	Phenol	BSD	REC	30	%	30-130
OP48571-BSD	108-95-2	Phenol	BSD	RPD	10	%	20
OP48571-BSD	95-95-4	2,4,5-Trichlorophenol	BSD	REC	76	%	30-130
OP48571-BSD	95-95-4	2,4,5-Trichlorophenol	BSD	RPD	5	%	20
OP48571-BSD	88-06-2	2,4,6-Trichlorophenol	BSD	REC	78	%	30-130
OP48571-BSD	88-06-2	2,4,6-Trichlorophenol	BSD	RPD	7	%	20
OP48571-BSD	62-53-3	Aniline	BSD	REC	43	%	40-140
OP48571-BSD	62-53-3	Aniline	BSD	RPD	0	%	20
OP48571-BSD	101-55-3	4-Bromophenyl phenyl ether	BSD	REC	75	%	40-140
OP48571-BSD	101-55-3	4-Bromophenyl phenyl ether	BSD	RPD	5	%	20
OP48571-BSD	85-68-7	Butyl benzyl phthalate	BSD	REC	100	%	40-140
OP48571-BSD	85-68-7	Butyl benzyl phthalate	BSD	RPD	5	%	20
OP48571-BSD	91-58-7	2-Chloronaphthalene	BSD	REC	69	%	40-140
OP48571-BSD	91-58-7	2-Chloronaphthalene	BSD	RPD	6	%	20
OP48571-BSD	106-47-8	4-Chloroaniline	BSD	REC	73	%	40-140
OP48571-BSD	106-47-8	4-Chloroaniline	BSD	RPD	7	%	20
OP48571-BSD	86-74-8	Carbazole	BSD	REC	80	%	40-140
OP48571-BSD	86-74-8	Carbazole	BSD	RPD	5	%	20
OP48571-BSD	111-91-1	bis(2-Chloroethoxy)methane	BSD	REC	64	%	40-140
OP48571-BSD	111-91-1	bis(2-Chloroethoxy)methane	BSD	RPD	11	%	20
OP48571-BSD	111-44-4	bis(2-Chloroethyl)ether	BSD	REC	72	%	40-140
OP48571-BSD	111-44-4	bis(2-Chloroethyl)ether	BSD	RPD	14	%	20
OP48571-BSD	108-60-1	bis(2-Chloroisopropyl)ether	BSD	REC	80	%	40-140
OP48571-BSD	108-60-1	bis(2-Chloroisopropyl)ether	BSD	RPD	11	%	20
OP48571-BSD	7005-72-3	4-Chlorophenyl phenyl ether	BSD	REC	71	%	40-140
OP48571-BSD	7005-72-3	4-Chlorophenyl phenyl ether	BSD	RPD	6	%	20
OP48571-BSD	121-14-2	2,4-Dinitrotoluene	BSD	REC	97	%	40-140
OP48571-BSD	121-14-2	2,4-Dinitrotoluene	BSD	RPD	7	%	20
OP48571-BSD	606-20-2	2,6-Dinitrotoluene	BSD	REC	92	%	40-140
OP48571-BSD	606-20-2	2,6-Dinitrotoluene	BSD	RPD	5	%	20
OP48571-BSD	91-94-1	3,3'-Dichlorobenzidine	BSD	REC	76	%	40-140
OP48571-BSD	91-94-1	3,3'-Dichlorobenzidine	BSD	RPD	7	%	20
OP48571-BSD	132-64-9	Dibenzofuran	BSD	REC	75	%	40-140
OP48571-BSD	132-64-9	Dibenzofuran	BSD	RPD	6	%	20
OP48571-BSD	84-74-2	Di-n-butyl phthalate	BSD	REC	87	%	40-140
OP48571-BSD	84-74-2	Di-n-butyl phthalate	BSD	RPD	3	%	20
OP48571-BSD	117-84-0	Di-n-octyl phthalate	BSD	REC	88	%	40-140
OP48571-BSD	117-84-0	Di-n-octyl phthalate	BSD	RPD	5	%	20
OP48571-BSD	84-66-2	Diethyl phthalate	BSD	REC	82	%	40-140
OP48571-BSD	84-66-2	Diethyl phthalate	BSD	RPD	5	%	20
OP48571-BSD	131-11-3	Dimethyl phthalate	BSD	REC	77	%	40-140
OP48571-BSD	131-11-3	Dimethyl phthalate	BSD	RPD	5	%	20

* Sample used for QC is not from job MC47535

5.4
5

QC Evaluation: CT RCP Limits

Job Number: MC47535
Account: CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
Collected: 08/25/16

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
OP48571-BSD	117-81-7	bis(2-Ethylhexyl)phthalate	BSD	REC	88	%	40-140
OP48571-BSD	117-81-7	bis(2-Ethylhexyl)phthalate	BSD	RPD	4	%	20
OP48571-BSD	118-74-1	Hexachlorobenzene	BSD	REC	72	%	40-140
OP48571-BSD	118-74-1	Hexachlorobenzene	BSD	RPD	4	%	20
OP48571-BSD	87-68-3	Hexachlorobutadiene	BSD	REC	49	%	40-140
OP48571-BSD	87-68-3	Hexachlorobutadiene	BSD	RPD	4	%	20
OP48571-BSD	77-47-4	Hexachlorocyclopentadiene	BSD	REC	42	%	40-140
OP48571-BSD	77-47-4	Hexachlorocyclopentadiene	BSD	RPD	5	%	20
OP48571-BSD	67-72-1	Hexachloroethane	BSD	REC	56	%	40-140
OP48571-BSD	67-72-1	Hexachloroethane	BSD	RPD	7	%	20
OP48571-BSD	78-59-1	Isophorone	BSD	REC	68	%	40-140
OP48571-BSD	78-59-1	Isophorone	BSD	RPD	12	%	20
OP48571-BSD	91-57-6	2-Methylnaphthalene	BSD	REC	66	%	40-140
OP48571-BSD	91-57-6	2-Methylnaphthalene	BSD	RPD	6	%	20
OP48571-BSD	88-74-4	2-Nitroaniline	BSD	REC	96	%	40-140
OP48571-BSD	88-74-4	2-Nitroaniline	BSD	RPD	7	%	20
OP48571-BSD	99-09-2	3-Nitroaniline	BSD	REC	92	%	40-140
OP48571-BSD	99-09-2	3-Nitroaniline	BSD	RPD	2	%	20
OP48571-BSD	100-01-6	4-Nitroaniline	BSD	REC	86	%	40-140
OP48571-BSD	100-01-6	4-Nitroaniline	BSD	RPD	2	%	20
OP48571-BSD	98-95-3	Nitrobenzene	BSD	REC	79	%	40-140
OP48571-BSD	98-95-3	Nitrobenzene	BSD	RPD	12	%	20
OP48571-BSD	621-64-7	N-Nitroso-di-n-propylamine	BSD	REC	75	%	40-140
OP48571-BSD	621-64-7	N-Nitroso-di-n-propylamine	BSD	RPD	13	%	20
OP48571-BSD	86-30-6	N-Nitrosodiphenylamine	BSD	REC	72	%	40-140
OP48571-BSD	86-30-6	N-Nitrosodiphenylamine	BSD	RPD	5	%	20
OP48571-BSD	82-68-8	Pentachloronitrobenzene	BSD	REC	86	%	40-140
OP48571-BSD	82-68-8	Pentachloronitrobenzene	BSD	RPD	3	%	20
OP48571-BSD	110-86-1	Pyridine	BSD	REC	11	%	40-140
OP48571-BSD	110-86-1	Pyridine	BSD	RPD	26 ^b	%	20
OP48571-BSD	95-94-3	1,2,4,5-Tetrachlorobenzene	BSD	REC	58	%	40-140
OP48571-BSD	95-94-3	1,2,4,5-Tetrachlorobenzene	BSD	RPD	7	%	20
OP48571-BSD	120-82-1	1,2,4-Trichlorobenzene	BSD	REC	52	%	40-140
OP48571-BSD	120-82-1	1,2,4-Trichlorobenzene	BSD	RPD	1	%	20
OP48571-BSD	367-12-4	2-Fluorophenol	BSD	SURR	45	%	15-110
OP48571-BSD	4165-62-2	Phenol-d5	BSD	SURR	28	%	15-110
OP48571-BSD	118-79-6	2,4,6-Tribromophenol	BSD	SURR	93	%	15-110
OP48571-BSD	4165-60-0	Nitrobenzene-d5	BSD	SURR	78	%	30-130
OP48571-BSD	321-60-8	2-Fluorobiphenyl	BSD	SURR	69	%	30-130
OP48571-BSD	1718-51-0	Terphenyl-d14	BSD	SURR	80	%	30-130
OP48571-MB	367-12-4	2-Fluorophenol	MB	SURR	39	%	15-110
OP48571-MB	4165-62-2	Phenol-d5	MB	SURR	22	%	15-110
OP48571-MB	118-79-6	2,4,6-Tribromophenol	MB	SURR	77	%	15-110
OP48571-MB	4165-60-0	Nitrobenzene-d5	MB	SURR	64	%	30-130
OP48571-MB	321-60-8	2-Fluorobiphenyl	MB	SURR	58	%	30-130

* Sample used for QC is not from job MC47535

5.4
5

QC Evaluation: CT RCP Limits

Job Number: MC47535
Account: CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
Collected: 08/25/16

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
OP48571-MB	1718-51-0	Terphenyl-d14	MB	SURR	70	%	30-130
MC47535-10	367-12-4	2-Fluorophenol	SAMP	SURR	36	%	15-110
MC47535-10	4165-62-2	Phenol-d5	SAMP	SURR	22	%	15-110
MC47535-10	118-79-6	2,4,6-Tribromophenol	SAMP	SURR	85	%	15-110
MC47535-10	4165-60-0	Nitrobenzene-d5	SAMP	SURR	64	%	30-130
MC47535-10	321-60-8	2-Fluorobiphenyl	SAMP	SURR	62	%	30-130
MC47535-10	1718-51-0	Terphenyl-d14	SAMP	SURR	68	%	30-130
MC47535-11	367-12-4	2-Fluorophenol	SAMP	SURR	29	%	15-110
MC47535-11	4165-62-2	Phenol-d5	SAMP	SURR	16	%	15-110
MC47535-11	118-79-6	2,4,6-Tribromophenol	SAMP	SURR	82	%	15-110
MC47535-11	4165-60-0	Nitrobenzene-d5	SAMP	SURR	67	%	30-130
MC47535-11	321-60-8	2-Fluorobiphenyl	SAMP	SURR	62	%	30-130
MC47535-11	1718-51-0	Terphenyl-d14	SAMP	SURR	71	%	30-130

- (a) Outside control limits. Associated samples are non-detect for this compound.
- (b) Outside control limits. Individual spike recoveries within acceptance limits.

* Sample used for QC is not from job MC47535

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC47535

Account: CDRMRHCT CDR Maguire

Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3826-MB	N104356.D	1	08/29/16	MC	n/a	n/a	MSN3826

The QC reported here applies to the following samples:

Method: SW846 8260C

MC47535-10, MC47535-11, MC47535-12

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	10	ug/l	
107-13-1	Acrylonitrile	ND	5.0	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	

Method Blank Summary

Job Number: MC47535

Account: CDRMRHCT CDR Maguire

Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3826-MB	N104356.D	1	08/29/16	MC	n/a	n/a	MSN3826

The QC reported here applies to the following samples:

Method: SW846 8260C

MC47535-10, MC47535-11, MC47535-12

CAS No.	Compound	Result	RL	Units	Q
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	10	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	0.97	5.0	ug/l	J
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.69	5.0	ug/l	J
120-82-1	1,2,4-Trichlorobenzene	0.73	5.0	ug/l	J
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

Method Blank Summary

Job Number: MC47535

Account: CDRMRHCT CDR Maguire

Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3826-MB	N104356.D	1	08/29/16	MC	n/a	n/a	MSN3826

The QC reported here applies to the following samples:

Method: SW846 8260C

MC47535-10, MC47535-11, MC47535-12

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	99% 76-129%
2037-26-5	Toluene-D8	99% 83-114%
460-00-4	4-Bromofluorobenzene	92% 75-124%

Method Blank Summary

Job Number: MC47535

Account: CDRMRHCT CDR Maguire

Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM2885-MB	M80611.D	1	08/30/16	KP	n/a	n/a	MSM2885

The QC reported here applies to the following samples:

Method: SW846 8260C

MC47535-1, MC47535-2, MC47535-3, MC47535-4, MC47535-5, MC47535-6, MC47535-7, MC47535-8, MC47535-9

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	10	ug/kg	
107-13-1	Acrylonitrile	ND	25	ug/kg	
71-43-2	Benzene	ND	0.50	ug/kg	
108-86-1	Bromobenzene	ND	5.0	ug/kg	
75-27-4	Bromodichloromethane	ND	2.0	ug/kg	
75-25-2	Bromoform	ND	2.0	ug/kg	
74-83-9	Bromomethane	ND	2.0	ug/kg	
78-93-3	2-Butanone (MEK)	ND	20	ug/kg	
104-51-8	n-Butylbenzene	ND	5.0	ug/kg	
135-98-8	sec-Butylbenzene	ND	5.0	ug/kg	
98-06-6	tert-Butylbenzene	ND	5.0	ug/kg	
75-15-0	Carbon disulfide	ND	5.0	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.0	ug/kg	
108-90-7	Chlorobenzene	ND	2.0	ug/kg	
75-00-3	Chloroethane	ND	5.0	ug/kg	
67-66-3	Chloroform	ND	2.0	ug/kg	
74-87-3	Chloromethane	ND	5.0	ug/kg	
95-49-8	o-Chlorotoluene	ND	5.0	ug/kg	
106-43-4	p-Chlorotoluene	ND	5.0	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/kg	
124-48-1	Dibromochloromethane	ND	2.0	ug/kg	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	2.0	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	2.0	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	2.0	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.0	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.0	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.0	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.0	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.0	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/kg	
142-28-9	1,3-Dichloropropane	ND	5.0	ug/kg	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/kg	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	ug/kg	

Method Blank Summary

Job Number: MC47535

Account: CDRMRHCT CDR Maguire

Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM2885-MB	M80611.D	1	08/30/16	KP	n/a	n/a	MSM2885

The QC reported here applies to the following samples:

Method: SW846 8260C

MC47535-1, MC47535-2, MC47535-3, MC47535-4, MC47535-5, MC47535-6, MC47535-7, MC47535-8, MC47535-9

CAS No.	Compound	Result	RL	Units	Q
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	ug/kg	
100-41-4	Ethylbenzene	ND	2.0	ug/kg	
76-13-1	Freon 113	ND	5.0	ug/kg	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/kg	
591-78-6	2-Hexanone	ND	10	ug/kg	
98-82-8	Isopropylbenzene	ND	5.0	ug/kg	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/kg	
74-95-3	Methylene bromide	ND	5.0	ug/kg	
75-09-2	Methylene chloride	ND	2.0	ug/kg	
91-20-3	Naphthalene	ND	5.0	ug/kg	
103-65-1	n-Propylbenzene	ND	5.0	ug/kg	
100-42-5	Styrene	ND	5.0	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	ug/kg	
127-18-4	Tetrachloroethene	ND	2.0	ug/kg	
109-99-9	Tetrahydrofuran	ND	10	ug/kg	
108-88-3	Toluene	ND	5.0	ug/kg	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.0	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.0	ug/kg	
79-01-6	Trichloroethene	ND	2.0	ug/kg	
75-69-4	Trichlorofluoromethane	ND	2.0	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/kg	
75-01-4	Vinyl chloride	ND	2.0	ug/kg	
	m,p-Xylene	ND	2.0	ug/kg	
95-47-6	o-Xylene	ND	2.0	ug/kg	

Method Blank Summary

Job Number: MC47535

Account: CDRMRHCT CDR Maguire

Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM2885-MB	M80611.D	1	08/30/16	KP	n/a	n/a	MSM2885

The QC reported here applies to the following samples:

Method: SW846 8260C

MC47535-1, MC47535-2, MC47535-3, MC47535-4, MC47535-5, MC47535-6, MC47535-7, MC47535-8, MC47535-9

CAS No.	Surrogate Recoveries	Limits	
1868-53-7	Dibromofluoromethane	107%	65-141%
2037-26-5	Toluene-D8	103%	65-129%
460-00-4	4-Bromofluorobenzene	107%	63-137%

Blank Spike Summary

Job Number: MC47535

Account: CDRMRHCT CDR Maguire

Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM2885-BS	M80609.D	1	08/30/16	KP	n/a	n/a	MSM2885

The QC reported here applies to the following samples:

Method: SW846 8260C

MC47535-1, MC47535-2, MC47535-3, MC47535-4, MC47535-5, MC47535-6, MC47535-7, MC47535-8, MC47535-9

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
67-64-1	Acetone	50	57.4	115	24-179
107-13-1	Acrylonitrile	50	53.5	107	52-159
71-43-2	Benzene	50	52.5	105	73-115
108-86-1	Bromobenzene	50	52.5	105	76-121
75-27-4	Bromodichloromethane	50	53.9	108	76-122
75-25-2	Bromoform	50	50.9	102	67-151
74-83-9	Bromomethane	50	61.9	124	52-139
78-93-3	2-Butanone (MEK)	50	45.7	91	32-151
104-51-8	n-Butylbenzene	50	57.0	114	71-124
135-98-8	sec-Butylbenzene	50	56.1	112	71-124
98-06-6	tert-Butylbenzene	50	56.4	113	66-125
75-15-0	Carbon disulfide	50	37.7	75	57-143
56-23-5	Carbon tetrachloride	50	53.3	107	73-129
108-90-7	Chlorobenzene	50	52.3	105	79-123
75-00-3	Chloroethane	50	57.3	115	51-159
67-66-3	Chloroform	50	55.0	110	72-122
74-87-3	Chloromethane	50	61.0	122	57-143
95-49-8	o-Chlorotoluene	50	54.1	108	68-121
106-43-4	p-Chlorotoluene	50	54.2	108	68-119
96-12-8	1,2-Dibromo-3-chloropropane	50	49.4	99	52-132
124-48-1	Dibromochloromethane	50	51.6	103	74-139
106-93-4	1,2-Dibromoethane	50	52.5	105	76-130
95-50-1	1,2-Dichlorobenzene	50	53.9	108	73-122
541-73-1	1,3-Dichlorobenzene	50	53.3	107	74-119
106-46-7	1,4-Dichlorobenzene	50	52.3	105	75-118
75-71-8	Dichlorodifluoromethane	50	52.2	104	11-183
75-34-3	1,1-Dichloroethane	50	51.1	102	70-128
107-06-2	1,2-Dichloroethane	50	52.5	105	70-126
75-35-4	1,1-Dichloroethene	50	45.5	91	71-136
156-59-2	cis-1,2-Dichloroethene	50	56.2	112	78-128
156-60-5	trans-1,2-Dichloroethene	50	47.5	95	71-131
78-87-5	1,2-Dichloropropane	50	53.3	107	79-124
142-28-9	1,3-Dichloropropane	50	56.0	112	78-128
594-20-7	2,2-Dichloropropane	50	54.7	109	54-145
563-58-6	1,1-Dichloropropene	50	52.7	105	67-125
10061-01-5	cis-1,3-Dichloropropene	50	52.5	105	75-126

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC47535

Account: CDRMRHCT CDR Maguire

Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM2885-BS	M80609.D	1	08/30/16	KP	n/a	n/a	MSM2885

The QC reported here applies to the following samples:

Method: SW846 8260C

MC47535-1, MC47535-2, MC47535-3, MC47535-4, MC47535-5, MC47535-6, MC47535-7, MC47535-8, MC47535-9

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
10061-02-6	trans-1,3-Dichloropropene	50	50.0	100	75-128
100-41-4	Ethylbenzene	50	55.2	110	76-122
76-13-1	Freon 113	50	50.1	100	70-137
87-68-3	Hexachlorobutadiene	50	52.8	106	73-137
591-78-6	2-Hexanone	50	60.4	121	26-169
98-82-8	Isopropylbenzene	50	54.5	109	69-124
99-87-6	p-Isopropyltoluene	50	56.4	113	73-124
1634-04-4	Methyl Tert Butyl Ether	50	53.2	106	58-133
108-10-1	4-Methyl-2-pentanone (MIBK)	50	56.8	114	43-166
74-95-3	Methylene bromide	50	51.8	104	76-125
75-09-2	Methylene chloride	50	49.1	98	74-125
91-20-3	Naphthalene	50	47.6	95	39-158
103-65-1	n-Propylbenzene	50	53.9	108	69-121
100-42-5	Styrene	50	55.3	111	79-124
630-20-6	1,1,1,2-Tetrachloroethane	50	55.0	110	75-136
79-34-5	1,1,2,2-Tetrachloroethane	50	53.6	107	66-134
127-18-4	Tetrachloroethene	50	50.5	101	76-125
109-99-9	Tetrahydrofuran	50	47.2	94	34-177
108-88-3	Toluene	50	53.0	106	76-119
110-57-6	Trans-1,4-Dichloro-2-Butene	50	53.1	106	57-140
87-61-6	1,2,3-Trichlorobenzene	50	52.6	105	52-146
120-82-1	1,2,4-Trichlorobenzene	50	51.5	103	66-133
71-55-6	1,1,1-Trichloroethane	50	56.2	112	70-130
79-00-5	1,1,2-Trichloroethane	50	55.2	110	75-124
79-01-6	Trichloroethene	50	53.1	106	74-127
75-69-4	Trichlorofluoromethane	50	52.5	105	48-156
96-18-4	1,2,3-Trichloropropane	50	51.7	103	65-130
95-63-6	1,2,4-Trimethylbenzene	50	55.2	110	69-119
108-67-8	1,3,5-Trimethylbenzene	50	57.3	115	69-123
75-01-4	Vinyl chloride	50	47.9	96	33-166
	m,p-Xylene	100	111	111	78-122
95-47-6	o-Xylene	50	54.8	110	77-123

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC47535
Account: CDRMRHCT CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM2885-BS	M80609.D	1	08/30/16	KP	n/a	n/a	MSM2885

The QC reported here applies to the following samples:

Method: SW846 8260C

MC47535-1, MC47535-2, MC47535-3, MC47535-4, MC47535-5, MC47535-6, MC47535-7, MC47535-8, MC47535-9

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	102%	65-141%
2037-26-5	Toluene-D8	101%	65-129%
460-00-4	4-Bromofluorobenzene	93%	63-137%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC47535

Account: CDRMRHCT CDR Maguire

Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3826-BS	N104353.D	1	08/29/16	MC	n/a	n/a	MSN3826
MSN3826-BSD	N104354.D	1	08/29/16	MC	n/a	n/a	MSN3826

The QC reported here applies to the following samples:

Method: SW846 8260C

MC47535-10, MC47535-11, MC47535-12

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	60.1	120	61.1	122	2	24-200/25
107-13-1	Acrylonitrile	50	53.3	107	53.3	107	0	47-147/25
71-43-2	Benzene	50	49.4	99	47.8	96	3	66-123/25
108-86-1	Bromobenzene	50	52.4	105	51.9	104	1	73-124/25
75-27-4	Bromodichloromethane	50	53.9	108	52.5	105	3	68-130/25
75-25-2	Bromoform	50	53.9	108	53.6	107	1	61-149/25
74-83-9	Bromomethane	50	57.0	114	51.9	104	9	52-151/25
78-93-3	2-Butanone (MEK)	50	57.2	114	59.2	118	3	45-171/25
104-51-8	n-Butylbenzene	50	60.1	120	56.2	112	7	80-134/30
135-98-8	sec-Butylbenzene	50	57.3	115	55.0	110	4	77-132/25
98-06-6	tert-Butylbenzene	50	55.5	111	53.8	108	3	71-130/25
75-15-0	Carbon disulfide	50	36.9	74	35.9	72	3	24-164/25
56-23-5	Carbon tetrachloride	50	52.9	106	52.3	105	1	54-151/25
108-90-7	Chlorobenzene	50	55.4	111	54.0	108	3	75-117/25
75-00-3	Chloroethane	50	47.4	95	45.3	91	5	54-160/25
67-66-3	Chloroform	50	53.2	106	51.2	102	4	65-127/25
74-87-3	Chloromethane	50	55.7	111	52.9	106	5	43-154/25
95-49-8	o-Chlorotoluene	50	51.0	102	50.3	101	1	71-128/25
106-43-4	p-Chlorotoluene	50	53.1	106	52.1	104	2	71-125/25
96-12-8	1,2-Dibromo-3-chloropropane	50	56.6	113	58.8	118	4	53-145/25
124-48-1	Dibromochloromethane	50	62.1	124	59.9	120	4	67-137/25
106-93-4	1,2-Dibromoethane	50	59.7	119	59.3	119	1	73-126/25
95-50-1	1,2-Dichlorobenzene	50	56.2	112	55.5	111	1	75-124/25
541-73-1	1,3-Dichlorobenzene	50	54.7	109	53.8	108	2	76-120/25
106-46-7	1,4-Dichlorobenzene	50	54.7	109	53.3	107	3	77-117/25
75-71-8	Dichlorodifluoromethane	50	54.0	108	51.1	102	6	20-161/25
75-34-3	1,1-Dichloroethane	50	47.3	95	45.8	92	3	55-128/25
107-06-2	1,2-Dichloroethane	50	48.9	98	48.4	97	1	68-126/25
75-35-4	1,1-Dichloroethene	50	44.9	90	43.0	86	4	44-148/25
156-59-2	cis-1,2-Dichloroethene	50	54.3	109	52.0	104	4	63-132/25
156-60-5	trans-1,2-Dichloroethene	50	44.4	89	43.1	86	3	54-127/25
78-87-5	1,2-Dichloropropane	50	50.0	100	48.8	98	2	68-123/25
142-28-9	1,3-Dichloropropane	50	58.2	116	57.5	115	1	75-130/25
594-20-7	2,2-Dichloropropane	50	52.9	106	50.1	100	5	47-156/25
563-58-6	1,1-Dichloropropene	50	52.1	104	50.2	100	4	65-123/25
10061-01-5	cis-1,3-Dichloropropene	50	52.8	106	51.3	103	3	61-145/25

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC47535

Account: CDRMRHCT CDR Maguire

Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3826-BS	N104353.D	1	08/29/16	MC	n/a	n/a	MSN3826
MSN3826-BSD	N104354.D	1	08/29/16	MC	n/a	n/a	MSN3826

The QC reported here applies to the following samples:

Method: SW846 8260C

MC47535-10, MC47535-11, MC47535-12

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
10061-02-6	trans-1,3-Dichloropropene	50	50.0	100	49.5	99	1	60-134/25
100-41-4	Ethylbenzene	50	55.6	111	54.3	109	2	74-127/25
76-13-1	Freon 113	50	47.4	95	45.7	91	4	39-154/25
87-68-3	Hexachlorobutadiene	50	66.4	133	64.0	128	4	71-141/25
591-78-6	2-Hexanone	50	68.5	137	68.7	137	0	44-166/25
98-82-8	Isopropylbenzene	50	52.1	104	52.4	105	1	70-131/25
99-87-6	p-Isopropyltoluene	50	59.4	119	56.2	112	6	79-131/25
1634-04-4	Methyl Tert Butyl Ether	50	52.6	105	52.6	105	0	59-135/25
108-10-1	4-Methyl-2-pentanone (MIBK)	50	59.7	119	60.4	121	1	63-138/25
74-95-3	Methylene bromide	50	51.8	104	50.9	102	2	70-124/25
75-09-2	Methylene chloride	50	46.3	93	44.6	89	4	54-132/25
91-20-3	Naphthalene	50	58.0	116	58.2	116	0	37-145/25
103-65-1	n-Propylbenzene	50	53.4	107	51.8	104	3	71-128/25
100-42-5	Styrene	50	59.9	120	58.3	117	3	76-130/25
630-20-6	1,1,1,2-Tetrachloroethane	50	59.3	119	57.4	115	3	71-139/25
79-34-5	1,1,2,2-Tetrachloroethane	50	55.5	111	56.5	113	2	62-130/25
127-18-4	Tetrachloroethene	50	55.5	111	53.3	107	4	68-133/25
109-99-9	Tetrahydrofuran	50	48.1	96	49.1	98	2	52-131/25
108-88-3	Toluene	50	53.7	107	52.0	104	3	73-124/25
110-57-6	Trans-1,4-Dichloro-2-Butene	50	63.8	128	63.7	127	0	26-163/25
87-61-6	1,2,3-Trichlorobenzene	50	64.0	128	63.4	127	1	58-144/25
120-82-1	1,2,4-Trichlorobenzene	50	59.5	119	58.4	117	2	63-137/25
71-55-6	1,1,1-Trichloroethane	50	53.5	107	52.6	105	2	60-135/25
79-00-5	1,1,2-Trichloroethane	50	55.5	111	54.7	109	1	72-125/25
79-01-6	Trichloroethene	50	51.5	103	49.5	99	4	73-120/25
75-69-4	Trichlorofluoromethane	50	51.7	103	50.0	100	3	52-152/25
96-18-4	1,2,3-Trichloropropane	50	54.7	109	55.7	111	2	56-136/25
95-63-6	1,2,4-Trimethylbenzene	50	53.5	107	51.8	104	3	76-125/25
108-67-8	1,3,5-Trimethylbenzene	50	53.3	107	52.6	105	1	76-132/25
75-01-4	Vinyl chloride	50	45.9	92	44.4	89	3	49-154/25
	m,p-Xylene	100	115	115	111	111	4	73-129/25
95-47-6	o-Xylene	50	58.2	116	56.2	112	3	73-128/25

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC47535

Account: CDRMRHCT CDR Maguire

Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3826-BS	N104353.D	1	08/29/16	MC	n/a	n/a	MSN3826
MSN3826-BSD	N104354.D	1	08/29/16	MC	n/a	n/a	MSN3826

The QC reported here applies to the following samples:

Method: SW846 8260C

MC47535-10, MC47535-11, MC47535-12

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	102%	101%	76-129%
2037-26-5	Toluene-D8	97%	97%	83-114%
460-00-4	4-Bromofluorobenzene	87%	89%	75-124%

* = Outside of Control Limits.

Volatile Internal Standard Area Summary

Job Number: MC47535
Account: CDRMRHCT CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Check Std: MSM2885-CC2881	Injection Date: 08/30/16
Lab File ID: M80608.D	Injection Time: 11:49
Instrument ID: GCMSM	Method: SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	64805	9.77	108082	10.68	50756	13.90	59602	16.49	35908	7.69
Upper Limit ^a	129610	10.27	216164	11.18	101512	14.40	119204	16.99	71816	8.19
Lower Limit ^b	32403	9.27	54041	10.18	25378	13.40	29801	15.99	17954	7.19

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSM2884-BS1	64568	9.77	107678	10.67	50169	13.90	60918	16.49	37834	7.69
MSM2885-BS	64568	9.77	107678	10.67	50169	13.90	60918	16.49	37834	7.69
MSM2884-MB1	57423	9.77	94500	10.67	44763	13.90	47334	16.49	38652	7.68
MSM2885-MB	57423	9.77	94500	10.67	44763	13.90	47334	16.49	38652	7.68
ZZZZZZ	57172	9.77	91937	10.67	45259	13.90	49566	16.49	64653	7.68
ZZZZZZ	56126	9.77	91342	10.68	43263	13.90	44612	16.49	56822	7.69
ZZZZZZ	55824	9.77	93224	10.67	44262	13.90	47155	16.49	60911	7.69
MC47493-1MS	43308	9.77	72372	10.67	34072	13.90	37703	16.49	27463	7.68
MC47535-1	54360	9.77	89214	10.67	42862	13.90	45519	16.49	64994	7.68
MC47535-2	52334	9.77	86374	10.67	41595	13.90	43804	16.49	61948	7.68
MC47535-3	54591	9.77	88294	10.67	42516	13.90	44117	16.49	62750	7.68
MC47535-4	55831	9.77	91586	10.68	43479	13.90	46034	16.49	60667	7.69
MC47535-5	54287	9.77	89877	10.68	42727	13.90	44806	16.49	61204	7.68
MC47535-6	51974	9.77	84914	10.67	40789	13.90	43324	16.49	59235	7.69
MC47535-7	53129	9.77	87338	10.68	42484	13.90	43666	16.49	62131	7.68
MC47535-9	52850	9.77	86960	10.67	41426	13.90	44323	16.49	57890	7.68
MC47543-1	53169	9.77	88188	10.67	42365	13.90	43839	16.49	37216	7.68
ZZZZZZ	52266	9.77	86668	10.68	41540	13.90	43615	16.49	41399	7.68
ZZZZZZ	54296	9.77	88016	10.68	41241	13.90	40104	16.49	33638	7.69
MC47543-1MS	59280	9.77	98734	10.67	45127	13.90	50645	16.49	34559	7.69
MC47543-1MSD	60538	9.77	100118	10.67	45012	13.90	51063	16.49	37424	7.69
MC47535-8	55649	9.77	90757	10.67	42529	13.90	45105	16.49	57445	7.68

- IS 1** = Pentafluorobenzene
- IS 2** = 1,4-Difluorobenzene
- IS 3** = Chlorobenzene-D5
- IS 4** = 1,4-Dichlorobenzene-d4
- IS 5** = Tert Butyl Alcohol-D9

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Internal Standard Area Summary

Job Number: MC47535
Account: CDRMRHCT CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Check Std:	MSN3826-CC3802	Injection Date:	08/29/16
Lab File ID:	N104352.D	Injection Time:	09:29
Instrument ID:	GCMSN	Method:	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	360473	9.46	610789	10.33	342016	13.51	306630	16.07	163009	7.45
Upper Limit ^a	720946	9.96	1221578	10.83	684032	14.01	613260	16.57	326018	7.95
Lower Limit ^b	180237	8.96	305395	9.83	171008	13.01	153315	15.57	81505	6.95

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSN3826-BS	353523	9.46	606196	10.33	338015	13.51	314887	16.07	171742	7.45
MSN3826-BSD	361973	9.46	618831	10.33	345319	13.51	313121	16.07	186772	7.45
MSN3826-MB	354546	9.46	593674	10.33	341215	13.51	298120	16.07	176507	7.47
MC47535-12	357712	9.46	605779	10.33	349166	13.51	292850	16.07	160677	7.46
ZZZZZZ	355700	9.46	600529	10.33	345335	13.51	292625	16.07	167547	7.46
ZZZZZZ	354144	9.46	602442	10.33	346444	13.51	287012	16.07	156738	7.47
MC47507-3	357475	9.46	607082	10.33	348401	13.51	289248	16.07	160364	7.47
ZZZZZZ	356511	9.46	596395	10.33	349780	13.51	289164	16.07	147355	7.47
ZZZZZZ	356088	9.46	601459	10.33	350290	13.51	293303	16.07	153599	7.47
ZZZZZZ	356031	9.46	602919	10.33	350105	13.51	294882	16.07	176525	7.46
ZZZZZZ	359688	9.46	607067	10.33	347137	13.51	293419	16.07	164222	7.46
ZZZZZZ	359228	9.46	609233	10.33	345841	13.51	292693	16.07	169671	7.46
MC47535-10	355395	9.46	603622	10.33	344956	13.51	294120	16.07	169310	7.46
MC47535-11	356087	9.46	602406	10.33	347115	13.51	289464	16.07	163332	7.46
ZZZZZZ	353614	9.46	605539	10.33	345943	13.51	289459	16.07	154254	7.46
ZZZZZZ	359071	9.46	610010	10.33	351299	13.51	291331	16.07	153524	7.46
ZZZZZZ	352073	9.46	604487	10.33	352808	13.51	289967	16.07	151593	7.46
ZZZZZZ	363913	9.46	618438	10.33	357056	13.51	288705	16.07	151992	7.46
MC47507-3	354737	9.46	619381	10.33	351162	13.50	289749	16.07	151556	7.46
ZZZZZZ	357068	9.46	614464	10.33	355630	13.51	288063	16.07	134565	7.47
MC47507-3MS	361384	9.46	616731	10.33	351734	13.51	305967	16.07	132147	7.45
MC47507-3MSD	355914	9.46	615333	10.33	347396	13.51	302312	16.07	128570	7.45

- IS 1 = Pentafluorobenzene
- IS 2 = 1,4-Difluorobenzene
- IS 3 = Chlorobenzene-D5
- IS 4 = 1,4-Dichlorobenzene-d4
- IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

6.4.2
6

Volatile Surrogate Recovery Summary

Job Number: MC47535

Account: CDRMRHCT CDR Maguire

Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Method: SW846 8260C

Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC47535-10	N104366.D	100	98	94
MC47535-11	N104367.D	101	98	95
MC47535-12	N104357.D	100	98	94
MSN3826-BS	N104353.D	102	97	87
MSN3826-BSD	N104354.D	101	97	89
MSN3826-MB	N104356.D	99	99	92

Surrogate Compounds

Recovery Limits

S1 = Dibromofluoromethane	76-129%
S2 = Toluene-D8	83-114%
S3 = 4-Bromofluorobenzene	75-124%

Volatile Surrogate Recovery Summary

Job Number: MC47535

Account: CDRMRHCT CDR Maguire

Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Method: SW846 8260C

Matrix: SO

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC47535-1	M80616.D	109	103	108
MC47535-2	M80617.D	108	102	109
MC47535-3	M80618.D	109	103	109
MC47535-4	M80619.D	111	101	107
MC47535-5	M80620.D	110	101	109
MC47535-6	M80621.D	111	102	108
MC47535-7	M80622.D	113	103	109
MC47535-8	M80629.D	108	102	107
MC47535-9	M80623.D	109	102	108
MSM2885-BS	M80609.D	102	101	93
MSM2885-MB	M80611.D	107	103	107

Surrogate Compounds

Recovery Limits

S1 = Dibromofluoromethane

65-141%

S2 = Toluene-D8

65-129%

S3 = 4-Bromofluorobenzene

63-137%

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC47535

Account: CDRMRHCT CDR Maguire

Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP48551-MB	W29651.D	1	08/29/16	MR	08/28/16	OP48551	MSW1195

The QC reported here applies to the following samples:

Method: SW846 8270D

MC47535-1, MC47535-2, MC47535-3, MC47535-4, MC47535-5, MC47535-6, MC47535-7, MC47535-8, MC47535-9

CAS No.	Compound	Result	RL	Units	Q
95-57-8	2-Chlorophenol	ND	240	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	480	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	480	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	480	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	480	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	480	ug/kg	
95-48-7	2-Methylphenol	ND	480	ug/kg	
106-44-5	4-Methylphenol	ND	480	ug/kg	
88-75-5	2-Nitrophenol	ND	480	ug/kg	
100-02-7	4-Nitrophenol	ND	480	ug/kg	
87-86-5	Pentachlorophenol	ND	480	ug/kg	
108-95-2	Phenol	ND	240	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	480	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	480	ug/kg	
83-32-9	Acenaphthene	ND	95	ug/kg	
208-96-8	Acenaphthylene	ND	95	ug/kg	
62-53-3	Aniline	ND	480	ug/kg	
120-12-7	Anthracene	ND	95	ug/kg	
56-55-3	Benzo(a)anthracene	ND	95	ug/kg	
50-32-8	Benzo(a)pyrene	ND	240	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	95	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	95	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	95	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	240	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	240	ug/kg	
91-58-7	2-Chloronaphthalene	ND	240	ug/kg	
106-47-8	4-Chloroaniline	ND	480	ug/kg	
86-74-8	Carbazole	ND	95	ug/kg	
218-01-9	Chrysene	ND	95	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	240	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	240	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	240	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	240	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	480	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	480	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	480	ug/kg	

Method Blank Summary

Job Number: MC47535

Account: CDRMRHCT CDR Maguire

Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP48551-MB	W29651.D	1	08/29/16	MR	08/28/16	OP48551	MSW1195

The QC reported here applies to the following samples:

Method: SW846 8270D

MC47535-1, MC47535-2, MC47535-3, MC47535-4, MC47535-5, MC47535-6, MC47535-7, MC47535-8, MC47535-9

CAS No.	Compound	Result	RL	Units	Q
53-70-3	Dibenzo(a,h)anthracene	ND	95	ug/kg	
132-64-9	Dibenzofuran	ND	95	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	240	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	240	ug/kg	
84-66-2	Diethyl phthalate	ND	240	ug/kg	
131-11-3	Dimethyl phthalate	ND	240	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	240	ug/kg	
206-44-0	Fluoranthene	ND	95	ug/kg	
86-73-7	Fluorene	ND	95	ug/kg	
118-74-1	Hexachlorobenzene	ND	240	ug/kg	
87-68-3	Hexachlorobutadiene	ND	240	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	480	ug/kg	
67-72-1	Hexachloroethane	ND	240	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	240	ug/kg	
78-59-1	Isophorone	ND	240	ug/kg	
91-57-6	2-Methylnaphthalene	ND	95	ug/kg	
88-74-4	2-Nitroaniline	ND	480	ug/kg	
99-09-2	3-Nitroaniline	ND	480	ug/kg	
100-01-6	4-Nitroaniline	ND	480	ug/kg	
91-20-3	Naphthalene	ND	95	ug/kg	
98-95-3	Nitrobenzene	ND	240	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	240	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	240	ug/kg	
82-68-8	Pentachloronitrobenzene	ND	480	ug/kg	
85-01-8	Phenanthrene	ND	95	ug/kg	
129-00-0	Pyrene	ND	95	ug/kg	
110-86-1	Pyridine	ND	480	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	480	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	240	ug/kg	

CAS No.	Surrogate Recoveries	Limits	
367-12-4	2-Fluorophenol	80%	25-109%
4165-62-2	Phenol-d5	79%	29-113%
118-79-6	2,4,6-Tribromophenol	105%	20-141%

Method Blank Summary

Job Number: MC47535

Account: CDRMRHCT CDR Maguire

Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP48551-MB	W29651.D	1	08/29/16	MR	08/28/16	OP48551	MSW1195

The QC reported here applies to the following samples:

Method: SW846 8270D

MC47535-1, MC47535-2, MC47535-3, MC47535-4, MC47535-5, MC47535-6, MC47535-7, MC47535-8, MC47535-9

CAS No.	Surrogate Recoveries	Limits
4165-60-0	Nitrobenzene-d5	83% 27-115%
321-60-8	2-Fluorobiphenyl	86% 34-118%
1718-51-0	Terphenyl-d14	99% 42-139%

7.1.1
7

Method Blank Summary

Job Number: MC47535

Account: CDRMRHCT CDR Maguire

Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP48571-MB	W29675.D	1	08/30/16	MR	08/29/16	OP48571	MSW1196

The QC reported here applies to the following samples:

Method: SW846 8270D

MC47535-10, MC47535-11

CAS No.	Compound	Result	RL	Units	Q
95-57-8	2-Chlorophenol	ND	5.0	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	ug/l	
95-48-7	2-Methylphenol	ND	10	ug/l	
106-44-5	4-Methylphenol	ND	10	ug/l	
88-75-5	2-Nitrophenol	ND	10	ug/l	
100-02-7	4-Nitrophenol	ND	20	ug/l	
87-86-5	Pentachlorophenol	ND	10	ug/l	
108-95-2	Phenol	ND	5.0	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	ug/l	
62-53-3	Aniline	ND	10	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	ug/l	
106-47-8	4-Chloroaniline	ND	10	ug/l	
86-74-8	Carbazole	ND	2.0	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	ug/l	
132-64-9	Dibenzofuran	ND	2.0	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	ug/l	

Method Blank Summary

Job Number: MC47535

Account: CDRMRHCT CDR Maguire

Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP48571-MB	W29675.D	1	08/30/16	MR	08/29/16	OP48571	MSW1196

The QC reported here applies to the following samples:

Method: SW846 8270D

MC47535-10, MC47535-11

CAS No.	Compound	Result	RL	Units	Q
67-72-1	Hexachloroethane	ND	5.0	ug/l	
78-59-1	Isophorone	ND	5.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.0	ug/l	
88-74-4	2-Nitroaniline	ND	10	ug/l	
99-09-2	3-Nitroaniline	ND	10	ug/l	
100-01-6	4-Nitroaniline	ND	10	ug/l	
98-95-3	Nitrobenzene	ND	5.0	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	10	ug/l	
82-68-8	Pentachloronitrobenzene	ND	10	ug/l	
110-86-1	Pyridine	ND	10	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	10	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	

CAS No.	Surrogate Recoveries	Limits
367-12-4	2-Fluorophenol	39% 10-80%
4165-62-2	Phenol-d5	22% 10-72%
118-79-6	2,4,6-Tribromophenol	77% 42-134%
4165-60-0	Nitrobenzene-d5	64% 25-117%
321-60-8	2-Fluorobiphenyl	58% 24-112%
1718-51-0	Terphenyl-d14	70% 48-133%

Method Blank Summary

Job Number: MC47535
Account: CDRMRHCT CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP48572-MB	I102601.D	1	08/30/16	MR	08/29/16	OP48572	MSI3878

The QC reported here applies to the following samples:

Method: SW846 8270D BY SIM

MC47535-10, MC47535-11

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	0.10	ug/l	
208-96-8	Acenaphthylene	ND	0.10	ug/l	
120-12-7	Anthracene	ND	0.10	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.050	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.050	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	ug/l	
218-01-9	Chrysene	ND	0.10	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	ug/l	
206-44-0	Fluoranthene	ND	0.10	ug/l	
86-73-7	Fluorene	ND	0.10	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	2.0	ug/l	
85-01-8	Phenanthrene	ND	0.050	ug/l	
129-00-0	Pyrene	ND	0.10	ug/l	

CAS No.	Surrogate Recoveries	Limits	
4165-60-0	Nitrobenzene-d5	60%	26-121%
321-60-8	2-Fluorobiphenyl	55%	28-107%
1718-51-0	Terphenyl-d14	65%	29-129%

Blank Spike Summary

Job Number: MC47535
Account: CDRMRHCT CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP48551-BS	W29652.D	1	08/29/16	MR	08/28/16	OP48551	MSW1195

The QC reported here applies to the following samples: **Method:** SW846 8270D

MC47535-1, MC47535-2, MC47535-3, MC47535-4, MC47535-5, MC47535-6, MC47535-7, MC47535-8, MC47535-9

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
95-57-8	2-Chlorophenol	2460	2060	84	39-104
59-50-7	4-Chloro-3-methyl phenol	2460	2360	96	51-110
120-83-2	2,4-Dichlorophenol	2460	2110	86	47-109
105-67-9	2,4-Dimethylphenol	2460	2210	90	43-105
51-28-5	2,4-Dinitrophenol	2460	4120	167* a	10-130
534-52-1	4,6-Dinitro-o-cresol	2460	3970	161* a	16-140
95-48-7	2-Methylphenol	2460	2030	82	40-105
106-44-5	4-Methylphenol	4930	4170	85	38-114
88-75-5	2-Nitrophenol	2460	2570	104	41-112
100-02-7	4-Nitrophenol	2460	2710	110	28-134
87-86-5	Pentachlorophenol	2460	2470	100	22-123
108-95-2	Phenol	2460	2030	82	40-107
95-95-4	2,4,5-Trichlorophenol	2460	2210	90	54-115
88-06-2	2,4,6-Trichlorophenol	2460	2250	91	51-110
83-32-9	Acenaphthene	2460	2230	90	49-108
208-96-8	Acenaphthylene	2460	1710	69	37-102
62-53-3	Aniline	2460	1360	55	10-90
120-12-7	Anthracene	2460	2040	83	54-111
56-55-3	Benzo(a)anthracene	2460	2230	90	56-117
50-32-8	Benzo(a)pyrene	2460	2060	84	57-117
205-99-2	Benzo(b)fluoranthene	2460	2110	86	55-122
191-24-2	Benzo(g,h,i)perylene	2460	2030	82	52-123
207-08-9	Benzo(k)fluoranthene	2460	2080	84	54-117
101-55-3	4-Bromophenyl phenyl ether	2460	2130	86	54-118
85-68-7	Butyl benzyl phthalate	2460	2830	115	54-121
91-58-7	2-Chloronaphthalene	2460	2080	84	46-114
106-47-8	4-Chloroaniline	2460	1160	47	12-88
86-74-8	Carbazole	2460	2290	93	56-116
218-01-9	Chrysene	2460	2130	86	56-114
111-91-1	bis(2-Chloroethoxy)methane	2460	1860	75	41-106
111-44-4	bis(2-Chloroethyl)ether	2460	1960	80	28-113
108-60-1	bis(2-Chloroisopropyl)ether	2460	2200	89	30-132
7005-72-3	4-Chlorophenyl phenyl ether	2460	2020	82	54-114
121-14-2	2,4-Dinitrotoluene	2460	2650	108	50-121
606-20-2	2,6-Dinitrotoluene	2460	2550	103	52-115
91-94-1	3,3'-Dichlorobenzidine	2460	1530	62	17-120

* = Outside of Control Limits.

7.2.1
7

Blank Spike Summary

Job Number: MC47535
Account: CDRMRHCT CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP48551-BS	W29652.D	1	08/29/16	MR	08/28/16	OP48551	MSW1195

The QC reported here applies to the following samples: **Method:** SW846 8270D

MC47535-1, MC47535-2, MC47535-3, MC47535-4, MC47535-5, MC47535-6, MC47535-7, MC47535-8, MC47535-9

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
53-70-3	Dibenzo(a,h)anthracene	2460	2000	81	54-121
132-64-9	Dibenzofuran	2460	2160	88	52-109
84-74-2	Di-n-butyl phthalate	2460	2480	101	55-113
117-84-0	Di-n-octyl phthalate	2460	2520	102	53-126
84-66-2	Diethyl phthalate	2460	2360	96	54-111
131-11-3	Dimethyl phthalate	2460	2220	90	53-111
117-81-7	bis(2-Ethylhexyl)phthalate	2460	2530	103	55-125
206-44-0	Fluoranthene	2460	2150	87	55-116
86-73-7	Fluorene	2460	2240	91	52-111
118-74-1	Hexachlorobenzene	2460	2060	84	52-117
87-68-3	Hexachlorobutadiene	2460	1720	70	36-108
77-47-4	Hexachlorocyclopentadiene	2460	1520	62	10-99
67-72-1	Hexachloroethane	2460	1990	81	33-100
193-39-5	Indeno(1,2,3-cd)pyrene	2460	1980	80	55-120
78-59-1	Isophorone	2460	1900	77	37-101
91-57-6	2-Methylnaphthalene	2460	2040	83	38-114
88-74-4	2-Nitroaniline	2460	2700	110	55-120
99-09-2	3-Nitroaniline	2460	1980	80	31-103
100-01-6	4-Nitroaniline	2460	2480	101	50-112
91-20-3	Naphthalene	2460	1940	79	27-128
98-95-3	Nitrobenzene	2460	2170	88	33-108
621-64-7	N-Nitroso-di-n-propylamine	2460	2050	83	37-112
86-30-6	N-Nitrosodiphenylamine	2460	2080	84	47-114
82-68-8	Pentachloronitrobenzene	2460	2330	95	50-125
85-01-8	Phenanthrene	2460	2120	86	54-112
129-00-0	Pyrene	2460	2260	92	54-118
110-86-1	Pyridine	2460	1190	48	23-81
95-94-3	1,2,4,5-Tetrachlorobenzene	2460	1770	72	43-113
120-82-1	1,2,4-Trichlorobenzene	2460	1760	71	38-105

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	83%	25-109%
4165-62-2	Phenol-d5	83%	29-113%
118-79-6	2,4,6-Tribromophenol	110%	20-141%

* = Outside of Control Limits.

7.2.1
7

Blank Spike Summary

Job Number: MC47535

Account: CDRMRHCT CDR Maguire

Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP48551-BS	W29652.D	1	08/29/16	MR	08/28/16	OP48551	MSW1195

The QC reported here applies to the following samples:

Method: SW846 8270D

MC47535-1, MC47535-2, MC47535-3, MC47535-4, MC47535-5, MC47535-6, MC47535-7, MC47535-8, MC47535-9

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	88%	27-115%
321-60-8	2-Fluorobiphenyl	88%	34-118%
1718-51-0	Terphenyl-d14	98%	42-139%

(a) Outside control limits. Associated samples are non-detect for this compound.

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC47535

Account: CDRMRHCT CDR Maguire

Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP48571-BS	W29676.D	1	08/30/16	MR	08/29/16	OP48571	MSW1196
OP48571-BSD	W29677.D	1	08/30/16	MR	08/29/16	OP48571	MSW1196

The QC reported here applies to the following samples:

Method: SW846 8270D

MC47535-10, MC47535-11

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
95-57-8	2-Chlorophenol	50	32.6	65	35.4	71	8	39-100/20
59-50-7	4-Chloro-3-methyl phenol	50	37.7	75	39.5	79	5	43-112/20
120-83-2	2,4-Dichlorophenol	50	32.0	64	35.5	71	10	44-113/20
105-67-9	2,4-Dimethylphenol	50	32.1	64	35.2	70	9	21-108/20
51-28-5	2,4-Dinitrophenol	50	77.5	155* a	81.7	163* a	5	22-128/20
534-52-1	4,6-Dinitro-o-cresol	50	72.0	144* a	74.3	149* a	3	42-132/20
95-48-7	2-Methylphenol	50	27.7	55	30.3	61	9	34-91/20
106-44-5	4-Methylphenol	100	52.2	52	56.8	57	8	31-90/20
88-75-5	2-Nitrophenol	50	43.2	86	48.0	96	11	40-118/20
100-02-7	4-Nitrophenol	50	22.2	44	22.2	44	0	10-71/20
87-86-5	Pentachlorophenol	50	39.6	79	40.5	81	2	33-123/20
108-95-2	Phenol	50	13.4	27	14.8	30	10	11-57/20
95-95-4	2,4,5-Trichlorophenol	50	35.9	72	37.9	76	5	50-122/20
88-06-2	2,4,6-Trichlorophenol	50	36.3	73	38.8	78	7	48-118/20
62-53-3	Aniline	50	21.4	43	21.5	43	0	18-90/20
101-55-3	4-Bromophenyl phenyl ether	50	35.4	71	37.3	75	5	55-126/20
85-68-7	Butyl benzyl phthalate	50	47.3	95	49.9	100	5	56-124/20
91-58-7	2-Chloronaphthalene	50	32.2	64	34.3	69	6	45-123/20
106-47-8	4-Chloroaniline	50	33.7	67	36.3	73	7	35-111/20
86-74-8	Carbazole	50	38.2	76	40.0	80	5	60-121/20
111-91-1	bis(2-Chloroethoxy)methane	50	28.7	57	32.2	64	11	41-117/20
111-44-4	bis(2-Chloroethyl)ether	50	31.2	62	35.9	72	14	31-114/20
108-60-1	bis(2-Chloroisopropyl)ether	50	35.8	72	40.0	80	11	33-135/20
7005-72-3	4-Chlorophenyl phenyl ether	50	33.4	67	35.5	71	6	52-124/20
121-14-2	2,4-Dinitrotoluene	50	45.4	91	48.6	97	7	52-128/20
606-20-2	2,6-Dinitrotoluene	50	43.8	88	46.0	92	5	50-126/20
91-94-1	3,3'-Dichlorobenzidine	50	35.6	71	38.0	76	7	46-134/20
132-64-9	Dibenzofuran	50	35.3	71	37.3	75	6	51-118/20
84-74-2	Di-n-butyl phthalate	50	42.1	84	43.5	87	3	57-120/20
117-84-0	Di-n-octyl phthalate	50	41.8	84	44.0	88	5	58-125/20
84-66-2	Diethyl phthalate	50	38.9	78	41.0	82	5	40-125/20
131-11-3	Dimethyl phthalate	50	36.9	74	38.6	77	5	10-145/20
117-81-7	bis(2-Ethylhexyl)phthalate	50	42.1	84	44.0	88	4	60-126/20
118-74-1	Hexachlorobenzene	50	34.7	69	36.1	72	4	53-127/20
87-68-3	Hexachlorobutadiene	50	25.8	52	24.7	49	4	17-110/20
77-47-4	Hexachlorocyclopentadiene	50	19.8	40	20.9	42	5	10-75/20

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC47535

Account: CDRMRHCT CDR Maguire

Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP48571-BS	W29676.D	1	08/30/16	MR	08/29/16	OP48571	MSW1196
OP48571-BSD	W29677.D	1	08/30/16	MR	08/29/16	OP48571	MSW1196

The QC reported here applies to the following samples:

Method: SW846 8270D

MC47535-10, MC47535-11

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-72-1	Hexachloroethane	50	30.1	60	28.2	56	7	15-98/20
78-59-1	Isophorone	50	30.2	60	33.9	68	12	36-106/20
91-57-6	2-Methylnaphthalene	50	30.9	62	32.9	66	6	41-112/20
88-74-4	2-Nitroaniline	50	44.6	89	48.0	96	7	52-130/20
99-09-2	3-Nitroaniline	50	45.1	90	45.8	92	2	47-120/20
100-01-6	4-Nitroaniline	50	42.0	84	42.9	86	2	51-121/20
98-95-3	Nitrobenzene	50	35.3	71	39.7	79	12	27-120/20
621-64-7	N-Nitroso-di-n-propylamine	50	32.9	66	37.3	75	13	37-123/20
86-30-6	N-Nitrosodiphenylamine	50	34.5	69	36.2	72	5	50-112/20
82-68-8	Pentachloronitrobenzene	50	41.5	83	42.9	86	3	54-129/20
110-86-1	Pyridine	50	6.9	14	5.3	11	26* b	10-72/20
95-94-3	1,2,4,5-Tetrachlorobenzene	50	27.0	54	29.0	58	7	39-119/20
120-82-1	1,2,4-Trichlorobenzene	50	26.3	53	26.1	52	1	27-107/20

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
367-12-4	2-Fluorophenol	40%	45%	10-80%
4165-62-2	Phenol-d5	26%	28%	10-72%
118-79-6	2,4,6-Tribromophenol	91%	93%	42-134%
4165-60-0	Nitrobenzene-d5	71%	78%	25-117%
321-60-8	2-Fluorobiphenyl	64%	69%	24-112%
1718-51-0	Terphenyl-d14	75%	80%	48-133%

(a) Outside control limits. Associated samples are non-detect for this compound.

(b) Outside control limits. Individual spike recoveries within acceptance limits.

* = Outside of Control Limits.

7.3.1
7

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC47535

Account: CDRMRHCT CDR Maguire

Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP48572-BS	I102602.D	1	08/30/16	MR	08/29/16	OP48572	MSI3878
OP48572-BSD	I102603.D	1	08/30/16	MR	08/29/16	OP48572	MSI3878

The QC reported here applies to the following samples:

Method: SW846 8270D BY SIM

MC47535-10, MC47535-11

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	50	33.0	66	35.6	71	8	45-116/30
208-96-8	Acenaphthylene	50	25.4	51	27.5	55	8	34-110/30
120-12-7	Anthracene	50	34.0	68	36.4	73	7	50-117/30
56-55-3	Benzo(a)anthracene	50	40.2	80	42.6	85	6	55-139/30
50-32-8	Benzo(a)pyrene	50	35.2	70	38.2	76	8	48-131/30
205-99-2	Benzo(b)fluoranthene	50	35.0	70	38.2	76	9	49-141/30
191-24-2	Benzo(g,h,i)perylene	50	34.1	68	37.2	74	9	60-130/30
207-08-9	Benzo(k)fluoranthene	50	33.7	67	36.5	73	8	49-133/30
218-01-9	Chrysene	50	35.8	72	37.7	75	5	52-128/30
53-70-3	Dibenzo(a,h)anthracene	50	35.3	71	38.5	77	9	60-136/30
206-44-0	Fluoranthene	50	38.6	77	40.9	82	6	46-132/30
86-73-7	Fluorene	50	38.8	78	41.0	82	6	53-120/30
193-39-5	Indeno(1,2,3-cd)pyrene	50	35.9	72	38.8	78	8	57-134/30
91-57-6	2-Methylnaphthalene	50	28.9	58	31.4	63	8	36-111/30
91-20-3	Naphthalene	50	26.9	54	28.9	58	7	32-116/30
85-01-8	Phenanthrene	50	33.9	68	36.5	73	7	50-120/30
129-00-0	Pyrene	50	38.3	77	40.8	82	6	48-127/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
4165-60-0	Nitrobenzene-d5	61%	71%	26-121%
321-60-8	2-Fluorobiphenyl	60%	66%	28-107%
1718-51-0	Terphenyl-d14	64%	69%	29-129%

* = Outside of Control Limits.

Semivolatiles Internal Standard Area Summary

Job Number: MC47535
Account: CDRMRHCT CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Check Std: MSI3878-CC3850	Injection Date: 08/30/16
Lab File ID: I102596.D	Injection Time: 11:35
Instrument ID: GCMSI	Method: SW846 8270D BY SIM

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	84139	4.21	243170	5.26	114340	6.80	190225	8.09	114568	11.13	285392	14.40
Upper Limit ^a	168278	4.71	486340	5.76	228680	7.30	380450	8.59	229136	11.63	570784	14.90
Lower Limit ^b	42070	3.71	121585	4.76	57170	6.30	95113	7.59	57284	10.63	142696	13.90

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
OP48502-LB	64814	4.21	198593	5.27	88902	6.80	146445	8.09	85001	11.14	208249	14.41
OP48502-MB	64814	4.21	198593	5.27	88902	6.80	146445	8.09	85001	11.14	208249	14.41
OP48502-LS	65556	4.21	201108	5.26	91101	6.80	147954	8.09	92813	11.14	221147	14.40
OP48502-BS	65556	4.21	201108	5.26	91101	6.80	147954	8.09	92813	11.14	221147	14.40
ZZZZZZ	66694	4.21	203740	5.26	90719	6.80	145311	8.09	85498	11.14	207180	14.40
ZZZZZZ	65201	4.20	197755	5.26	89960	6.80	148505	8.09	88627	11.14	211495	14.40
OP48572-MB	70343	4.21	213902	5.27	98407	6.80	159659	8.09	93018	11.15	224956	14.41
OP48572-BS	70304	4.21	218818	5.26	100049	6.80	163987	8.09	103756	11.14	250797	14.40
OP48572-BSD	68776	4.21	209683	5.26	94828	6.80	153594	8.09	96706	11.14	227737	14.40
MC47535-10	81519	4.21	247025	5.26	112712	6.80	176521	8.09	102417	11.13	256118	14.40
MC47535-11	80083	4.21	244472	5.26	112850	6.80	181739	8.09	106675	11.14	261968	14.40

- IS 1 = 1,4-Dichlorobenzene-d4
- IS 2 = Naphthalene-d8
- IS 3 = Acenaphthene-D10
- IS 4 = Phenanthrene-d10
- IS 5 = Chrysene-d12
- IS 6 = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

7.4.1
7

Semivolatile Internal Standard Area Summary

Job Number: MC47535
Account: CDRMRHCT CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Check Std: MSW1195-CC1188	Injection Date: 08/29/16
Lab File ID: W29650.D	Injection Time: 12:27
Instrument ID: GCMSW	Method: SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	93204	4.43	361400	5.49	210318	7.03	385030	8.33	392267	11.59	356433	14.90
Upper Limit ^a	186408	4.93	722800	5.99	420636	7.53	770060	8.83	784534	12.09	712866	15.40
Lower Limit ^b	46602	3.93	180700	4.99	105159	6.53	192515	7.83	196134	11.09	178217	14.40

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
OP48551-MB	118816	4.43	461926	5.49	260724	7.03	469808	8.33	449736	11.59	405234	14.90
OP48551-BS	109144	4.43	419118	5.49	240949	7.03	430606	8.33	410644	11.58	359194	14.90
OP48551-MS	124540	4.43	485724	5.49	275430	7.03	477279	8.33	414255	11.59	337073	14.91
OP48551-MSD	131795	4.43	514879	5.49	292350	7.03	496335	8.33	418977	11.59	342797	14.91
MC47350-20R	115993	4.43	461435	5.49	263551	7.03	447337	8.33	374720	11.59	295583	14.90
ZZZZZZ	123812	4.43	485618	5.49	274202	7.03	464180	8.33	376433	11.59	305022	14.91
ZZZZZZ	124726	4.43	492116	5.49	278027	7.04	465920	8.33	380541	11.59	308058	14.91
ZZZZZZ	114121	4.43	459990	5.49	261340	7.04	442243	8.33	364235	11.59	289829	14.91
ZZZZZZ	120333	4.43	477986	5.49	270498	7.04	455236	8.33	368065	11.59	300204	14.91
ZZZZZZ	120498	4.43	479404	5.49	272208	7.04	467108	8.33	378625	11.59	310726	14.91
ZZZZZZ	118467	4.43	467467	5.49	263076	7.04	452999	8.33	366451	11.59	298613	14.91
ZZZZZZ	116630	4.43	453855	5.49	262626	7.04	451500	8.33	374202	11.60	305148	14.91
MSW1195-ECC1188	93845	4.43	370486	5.50	216308	7.04	385170	8.34	351896	11.60	299963	14.91

- IS 1** = 1,4-Dichlorobenzene-d4
- IS 2** = Naphthalene-d8
- IS 3** = Acenaphthene-D10
- IS 4** = Phenanthrene-d10
- IS 5** = Chrysene-d12
- IS 6** = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

7.4.2
7

Semivolatile Internal Standard Area Summary

Job Number: MC47535
Account: CDRMRHCT CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Check Std: MSW1196-CC1188	Injection Date: 08/30/16
Lab File ID: W29671.D	Injection Time: 10:12
Instrument ID: GCMSW	Method: SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	102172	4.43	401054	5.49	233772	7.04	413152	8.33	393900	11.60	353363	14.91
Upper Limit ^a	204344	4.93	802108	5.99	467544	7.54	826304	8.83	787800	12.10	706726	15.41
Lower Limit ^b	51086	3.93	200527	4.99	116886	6.54	206576	7.83	196950	11.10	176682	14.41

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
OP48500-MB	91605	4.43	364168	5.49	209473	7.04	375182	8.34	367244	11.60	328295	14.91
OP48500-BS	105919	4.43	412719	5.49	241794	7.04	424161	8.33	415164	11.59	374880	14.91
ZZZZZZ	105774	4.43	417753	5.49	242114	7.03	431268	8.33	422035	11.59	384598	14.91
OP48571-MB	105346	4.43	408524	5.49	238533	7.03	425355	8.33	411270	11.59	371291	14.90
OP48571-BS	106635	4.43	411572	5.49	237592	7.03	421724	8.33	402085	11.59	356717	14.91
OP48571-BSD	107487	4.43	416378	5.49	240823	7.04	427221	8.33	407320	11.59	362662	14.91
ZZZZZZ	109397	4.43	426560	5.49	251659	7.03	438161	8.33	417796	11.59	380125	14.90
ZZZZZZ	106053	4.43	402796	5.49	238987	7.03	422232	8.33	410090	11.59	372696	14.90
ZZZZZZ	101927	4.43	394968	5.49	225706	7.03	405518	8.33	400249	11.59	362058	14.90
MC47535-10	105383	4.43	409830	5.49	235421	7.03	418408	8.33	402194	11.59	363710	14.90
MC47535-11	103728	4.43	405193	5.49	239478	7.03	424485	8.33	409397	11.59	371095	14.90

- IS 1 = 1,4-Dichlorobenzene-d4
- IS 2 = Naphthalene-d8
- IS 3 = Acenaphthene-D10
- IS 4 = Phenanthrene-d10
- IS 5 = Chrysene-d12
- IS 6 = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

7.4.3
7

Semivolatiles Internal Standard Area Summary

Job Number: MC47535
Account: CDRMRHCT CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Check Std:	MSW1197-CC1188	Injection Date:	08/31/16
Lab File ID:	W29684.D	Injection Time:	09:16
Instrument ID:	GCMSW	Method:	SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	107761	4.43	421100	5.49	244629	7.03	432515	8.33	425832	11.59	376233	14.91
Upper Limit ^a	215522	4.93	842200	5.99	489258	7.53	865030	8.83	851664	12.09	752466	15.41
Lower Limit ^b	53881	3.93	210550	4.99	122315	6.53	216258	7.83	212916	11.09	188117	14.41

Lab Sample ID	IS 1 AREA	IS 1 RT	IS 2 AREA	IS 2 RT	IS 3 AREA	IS 3 RT	IS 4 AREA	IS 4 RT	IS 5 AREA	IS 5 RT	IS 6 AREA	IS 6 RT
OP48378-MB4	113717	4.43	456179	5.49	261978	7.03	466672	8.33	456906	11.58	411526	14.90
OP48378-BS4	118359	4.43	462306	5.49	264342	7.03	470598	8.33	448899	11.59	403685	14.90
OP48378-BSD4	120738	4.43	467697	5.49	269415	7.03	477572	8.33	468873	11.59	418900	14.90
OP48378-LS4	114399	4.43	442574	5.49	256323	7.03	454082	8.33	437073	11.59	391102	14.90
ZZZZZZ	114201	4.43	449915	5.49	261397	7.03	469853	8.33	453821	11.59	407122	14.90
ZZZZZZ	108253	4.43	421090	5.49	246361	7.03	440910	8.33	429835	11.58	389542	14.90
ZZZZZZ	106845	4.43	423090	5.49	245331	7.03	436575	8.33	415160	11.58	374392	14.90
ZZZZZZ	100094	4.43	393465	5.49	227414	7.03	403433	8.33	392463	11.58	353138	14.90
ZZZZZZ	105722	4.43	418698	5.49	243358	7.03	441343	8.33	428662	11.58	385183	14.90
OP48378-LS3	110061	4.43	432048	5.49	251359	7.03	451421	8.33	436755	11.59	389857	14.90
ZZZZZZ	110199	4.43	436912	5.49	255045	7.03	450290	8.33	436029	11.58	401170	14.90
ZZZZZZ	113668	4.43	450052	5.49	263598	7.03	468592	8.33	459465	11.58	415190	14.90
ZZZZZZ	109687	4.43	443261	5.49	255617	7.03	461175	8.33	446809	11.58	407842	14.90
ZZZZZZ	109428	4.43	436558	5.49	254964	7.03	458381	8.33	448950	11.58	411559	14.89
ZZZZZZ	110685	4.43	445626	5.49	258797	7.03	469487	8.33	458569	11.58	412849	14.89
MC47535-1	124939	4.43	491640	5.49	284010	7.03	498759	8.33	452111	11.58	382708	14.89
MC47535-2	121085	4.43	478485	5.49	279996	7.03	495788	8.33	459765	11.58	388904	14.90
MC47535-3	115655	4.43	464298	5.49	268397	7.03	472353	8.33	426787	11.58	360589	14.90
MC47535-4	111066	4.43	458583	5.49	265210	7.03	465996	8.33	429746	11.58	361790	14.89
MC47535-5	121985	4.43	477146	5.49	278291	7.03	483316	8.33	422466	11.58	352844	14.90
MC47535-6	112004	4.43	451559	5.49	261995	7.03	460750	8.33	408489	11.58	343423	14.90
MC47535-7	118484	4.43	484431	5.49	274611	7.03	487038	8.33	439902	11.58	370262	14.90
MC47535-8	106928	4.43	425408	5.49	245537	7.03	432665	8.33	396389	11.58	339926	14.89
MC47535-9	128541	4.43	509679	5.49	293259	7.03	512652	8.33	431280	11.58	364080	14.90

- IS 1 = 1,4-Dichlorobenzene-d4
- IS 2 = Naphthalene-d8
- IS 3 = Acenaphthene-D10
- IS 4 = Phenanthrene-d10
- IS 5 = Chrysene-d12
- IS 6 = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

7.4.4
 7

Semivolatile Surrogate Recovery Summary

Job Number: MC47535

Account: CDRMRHCT CDR Maguire

Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Method: SW846 8270D	Matrix: AQ
----------------------------	-------------------

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
MC47535-10	W29681.D	36	22	85	64	62	68
MC47535-11	W29682.D	29	16	82	67	62	71
OP48571-BS	W29676.D	40	26	91	71	64	75
OP48571-BSD	W29677.D	45	28	93	78	69	80
OP48571-MB	W29675.D	39	22	77	64	58	70

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	10-80%
S2 = Phenol-d5	10-72%
S3 = 2,4,6-Tribromophenol	42-134%
S4 = Nitrobenzene-d5	25-117%
S5 = 2-Fluorobiphenyl	24-112%
S6 = Terphenyl-d14	48-133%

7.5.1
7

Semivolatile Surrogate Recovery Summary

Job Number: MC47535
Account: CDRMRHCT CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Method: SW846 8270D	Matrix: SO
----------------------------	-------------------

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
MC47535-1	W29700.D	66	67	91	71	71	80
MC47535-2	W29701.D	68	69	93	70	72	83
MC47535-3	W29702.D	70	70	98	70	74	87
MC47535-4	W29703.D	73	73	79	72	75	88
MC47535-5	W29704.D	72	75	97	73	76	88
MC47535-6	W29705.D	74	79	97	74	74	86
MC47535-7	W29706.D	69	72	93	75	70	83
MC47535-8	W29707.D	74	78	98	75	75	88
MC47535-9	W29708.D	70	72	91	69	73	86
OP48551-BS	W29652.D	83	83	110	88	88	98
OP48551-MB	W29651.D	80	79	105	83	86	99

Surrogate Compounds	Recovery Limits
----------------------------	------------------------

S1 = 2-Fluorophenol	25-109%
S2 = Phenol-d5	29-113%
S3 = 2,4,6-Tribromophenol	20-141%
S4 = Nitrobenzene-d5	27-115%
S5 = 2-Fluorobiphenyl	34-118%
S6 = Terphenyl-d14	42-139%

7.5.2
7

Semivolatile Surrogate Recovery Summary

Job Number: MC47535

Account: CDRMRHCT CDR Maguire

Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Method: SW846 8270D BY SIM	Matrix: AQ
-----------------------------------	-------------------

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC47535-10	I102604.D	60	57	60
MC47535-11	I102605.D	61	55	62
OP48572-BS	I102602.D	61	60	64
OP48572-BSD	I102603.D	71	66	69
OP48572-MB	I102601.D	60	55	65

Surrogate Compounds	Recovery Limits
S1 = Nitrobenzene-d5	26-121%
S2 = 2-Fluorobiphenyl	28-107%
S3 = Terphenyl-d14	29-129%

7.5.3
7

GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC47535

Account: CDRMRHCT CDR Maguire

Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP48569-MB	CF4604.D	1	08/31/16	MD	08/29/16	OP48569	GCF1300

The QC reported here applies to the following samples:

Method: CT-ETPH 7/06

MC47535-1, MC47535-2, MC47535-3, MC47535-4, MC47535-5, MC47535-6, MC47535-7, MC47535-8, MC47535-9

CAS No.	Compound	Result	RL	Units	Q
	CT-ETPH (C9-C36)	ND	17	mg/kg	

CAS No.	Surrogate Recoveries	Limits
84-15-1	o-Terphenyl	70% 50-137%

Method Blank Summary

Job Number: MC47535

Account: CDRMRHCT CDR Maguire

Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP48576-MB	CF4606.D	1	08/31/16	MD	08/30/16	OP48576	GCF1300

The QC reported here applies to the following samples:

Method: CT-ETPH 7/06

MC47535-10, MC47535-11

CAS No.	Compound	Result	RL	Units	Q
	CT-ETPH (C9-C36)	ND	0.10	mg/l	

CAS No.	Surrogate Recoveries	Limits
84-15-1	o-Terphenyl	85% 50-149%

Blank Spike Summary

Job Number: MC47535
Account: CDRMRHCT CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP48569-BS	CF4605.D	1	08/31/16	MD	08/29/16	OP48569	GCF1300

The QC reported here applies to the following samples:

Method: CT-ETPH 7/06

MC47535-1, MC47535-2, MC47535-3, MC47535-4, MC47535-5, MC47535-6, MC47535-7, MC47535-8, MC47535-9

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	CT-ETPH (C9-C36)	44.2	30.6	69	60-120

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	70%	50-137%

8.2.1
8

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC47535
Account: CDRMRHCT CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP48576-BS	CF4607.D	1	08/31/16	MD	08/30/16	OP48576	GCF1300

The QC reported here applies to the following samples:

Method: CT-ETPH 7/06

MC47535-10, MC47535-11

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
	CT-ETPH (C9-C36)	0.7	0.645	92	60-120

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	88%	50-149%

8.2.2

8

* = Outside of Control Limits.

Semivolatile Surrogate Recovery Summary

Job Number: MC47535

Account: CDRMRHCT CDR Maguire

Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Method: CT-ETPH 7/06	Matrix: AQ
-----------------------------	-------------------

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 ^a
MC47535-10	CF4619.D	79
MC47535-11	CF4608.D	79
OP48576-BS	CF4607.D	88
OP48576-MB	CF4606.D	85

Surrogate Compounds	Recovery Limits
---------------------	-----------------

S1 = o-Terphenyl	50-149%
------------------	---------

(a) Recovery from GC signal #1

8.3.1
8

Semivolatile Surrogate Recovery Summary

Job Number: MC47535
Account: CDRMRHCT CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Method: CT-ETPH 7/06	Matrix: SO
-----------------------------	-------------------

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 ^a
MC47535-1	CF4624.D	77
MC47535-2	CF4618.D	77
MC47535-3	CF4617.D	82
MC47535-4	CF4612.D	83
MC47535-5	CF4622.D	74
MC47535-6	CF4613.D	75
MC47535-7	CF4620.D	74
MC47535-8	CF4609.D	72
MC47535-9	CF4623.D	80
OP48569-BS	CF4605.D	70
OP48569-MB	CF4604.D	70

Surrogate Compounds	Recovery Limits
---------------------	-----------------

S1 = o-Terphenyl	50-137%
------------------	---------

(a) Recovery from GC signal #1

8.3.2
8

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC47535
Account: CDRMRHCT - CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26704
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date: 08/29/16

Metal	RL	IDL	MDL	MB raw	final
Aluminum	20	.74	1.2		
Antimony	1.0	.1	.17		
Arsenic	1.0	.11	.2	0.10	<1.0
Barium	5.0	.015	.076	0.030	<5.0
Beryllium	0.40	.013	.015		
Bismuth	5.0	.087	.15		
Boron	10	.12	.13		
Cadmium	0.40	.015	.031	0.010	<0.40
Calcium	500	.93	.86		
Chromium	1.0	.028	.047	0.060	<1.0
Cobalt	5.0	.015	.031		
Copper	2.5	.15	.1		
Gold	5.0	.088	.11		
Iron	10	.17	.44		
Lead	1.0	.071	.11	-0.040	<1.0
Lithium	50	.12	.18		
Magnesium	500	1.7	4		
Manganese	1.5	.004	.047		
Molybdenum	10	.019	.51		
Nickel	4.0	.018	.057		
Palladium	5.0	.078	.14		
Platinum	5.0	.34	.54		
Potassium	500	1.8	3.4		
Selenium	1.0	.18	.3	0.10	<1.0
Silicon	10	.083	.51		
Silver	0.50	.042	.061	-0.010	<0.50
Sodium	500	.92	1.2		
Sulfur	5.0	.2	.31		
Strontium	1.0	.004	.022		
Thallium	1.0	.08	.11		
Tin	10	.064	.078		
Titanium	5.0	.036	.054		
Tungsten	10	.27	.93		

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC47535
Account: CDRMRHCT - CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26704
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date: 08/29/16

Metal	RL	IDL	MDL	MB	
				raw	final

Vanadium	1.0	.026	.04		
Zinc	2.0	.018	.17		
Zirconium	5.0	.025	.17		

Associated samples MP26704: MC47535-1, MC47535-2, MC47535-3, MC47535-4, MC47535-5, MC47535-6, MC47535-7, MC47535-8, MC47535-9

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

9.1.1
9

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC47535
 Account: CDRMRHCT - CDR Maguire
 Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26704
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date: 08/29/16

Metal	MC47535-7 Original MS		SpikeLot MPICP7	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic	0.68	38.5	40.6	93.1	75-125
Barium	14.4	158	163	88.4	75-125
Beryllium					
Bismuth					
Boron					
Cadmium	0.025	38.0	40.6	93.5	75-125
Calcium					
Chromium	4.0	42.2	40.6	94.0	75-125
Cobalt					
Copper					
Gold					
Iron					
Lead	2.8	79.9	81.3	94.9	75-125
Lithium					
Magnesium					
Manganese					
Molybdenum					
Nickel					
Palladium					
Platinum					
Potassium					
Selenium	0.0	36.9	40.6	90.8	75-125
Silicon					
Silver	0.0	13.2	16.3	81.2	75-125
Sodium					
Sulfur					
Strontium					
Thallium					
Tin					
Titanium					
Tungsten					

9.1.2
 9

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC47535
 Account: CDRMRHCT - CDR Maguire
 Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26704
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date: 08/29/16

Metal	MC47535-7 Original MS	SpikeLot MPICP7	% Rec	QC Limits
-------	--------------------------	--------------------	-------	--------------

Vanadium

Zinc

Zirconium

Associated samples MP26704: MC47535-1, MC47535-2, MC47535-3, MC47535-4, MC47535-5, MC47535-6, MC47535-7, MC47535-8, MC47535-9

Results < IDL are shown as zero for calculation purposes

- (*) Outside of QC limits
- (N) Matrix Spike Rec. outside of QC limits
- (anr) Analyte not requested

9.1.2
9

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC47535
 Account: CDRMRHCT - CDR Maguire
 Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26704
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date: 08/29/16

Metal	MC47535-7 Original MSD		SpikeLot MPICP7 % Rec		MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	0.68	39.0	40.6	94.3	1.3	20
Barium	14.4	159	163	89.0	0.6	20
Beryllium						
Bismuth						
Boron						
Cadmium	0.025	38.3	40.6	94.2	0.8	20
Calcium						
Chromium	4.0	42.2	40.6	94.0	0.0	20
Cobalt						
Copper						
Gold						
Iron						
Lead	2.8	80.8	81.3	96.0	1.1	20
Lithium						
Magnesium						
Manganese						
Molybdenum						
Nickel						
Palladium						
Platinum						
Potassium						
Selenium	0.0	37.2	40.6	91.6	0.8	20
Silicon						
Silver	0.0	13.3	16.3	81.8	0.8	20
Sodium						
Sulfur						
Strontium						
Thallium						
Tin						
Titanium						
Tungsten						

9.1.2
9

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC47535
 Account: CDRMRHCT - CDR Maguire
 Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26704
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date: 08/29/16

Metal	MC47535-7 Original MSD	Spike/lot MPICP7	% Rec	MSD RPD	QC Limit
-------	---------------------------	---------------------	-------	------------	-------------

Vanadium

Zinc

Zirconium

Associated samples MP26704: MC47535-1, MC47535-2, MC47535-3, MC47535-4, MC47535-5, MC47535-6, MC47535-7, MC47535-8, MC47535-9

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

9.1.2
9

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC47535
 Account: CDRMRHCT - CDR Maguire
 Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26704
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date: 08/29/16 08/29/16

Metal	BSP Result	Spikelot MPICP7	% Rec	QC Limits	BSD Result	Spikelot MPICP7	% Rec	BSD RPD	QC Limit
Aluminum									
Antimony									
Arsenic	48.1	50	96.2	80-120	47.9	50	95.8	0.4	20
Barium	181	200	90.5	80-120	180	200	90.0	0.6	20
Beryllium									
Bismuth									
Boron									
Cadmium	48.0	50	96.0	80-120	47.6	50	95.2	0.8	20
Calcium									
Chromium	48.1	50	96.2	80-120	48.1	50	96.2	0.0	20
Cobalt									
Copper									
Gold									
Iron									
Lead	95.5	100	95.5	80-120	94.8	100	94.8	0.7	20
Lithium									
Magnesium									
Manganese									
Molybdenum									
Nickel									
Palladium									
Platinum									
Potassium									
Selenium	47.2	50	94.4	80-120	46.7	50	93.4	1.1	20
Silicon									
Silver	16.6	20	83.0	80-120	16.3	20	81.5	1.8	20
Sodium									
Sulfur									
Strontium									
Thallium									
Tin									
Titanium									
Tungsten									

9.1.3
 9

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC47535
 Account: CDRMRHCT - CDR Maguire
 Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26704
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date: 08/29/16 08/29/16

Metal	BSP Result	Spikelot MPICP7	% Rec	QC Limits	BSD Result	Spikelot MPICP7	% Rec	BSD RPD	QC Limit
-------	---------------	--------------------	-------	--------------	---------------	--------------------	-------	------------	-------------

Vanadium

Zinc

Zirconium

Associated samples MP26704: MC47535-1, MC47535-2, MC47535-3, MC47535-4, MC47535-5, MC47535-6, MC47535-7, MC47535-8, MC47535-9

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC47535
 Account: CDRMRHCT - CDR Maguire
 Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26704
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date: 08/29/16

Metal	LCS Result	Spikelot MPLCS86	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	92.6	97.5	95.0	78-122
Barium	281	306	91.8	83-117
Beryllium				
Bismuth				
Boron				
Cadmium	72.4	76.6	94.5	82-118
Calcium				
Chromium	98.3	103	95.4	80-121
Cobalt				
Copper				
Gold				
Iron				
Lead	95.0	96.7	98.2	82-118
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Palladium				
Platinum				
Potassium				
Selenium	154	161	95.7	78-123
Silicon				
Silver	43.2	49.3	87.6	75-125
Sodium				
Sulfur				
Strontium				
Thallium				
Tin				
Titanium				
Tungsten				

9.1.3
9

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC47535
 Account: CDRMRHCT - CDR Maguire
 Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26704
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date: 08/29/16

Metal	LCS Result	Spikelot MPLCS86	% Rec	QC Limits
-------	---------------	---------------------	-------	--------------

Vanadium

Zinc

Zirconium

Associated samples MP26704: MC47535-1, MC47535-2, MC47535-3, MC47535-4, MC47535-5, MC47535-6, MC47535-7, MC47535-8, MC47535-9

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: MC47535
 Account: CDRMRHCT - CDR Maguire
 Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26704
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: ug/l

Prep Date: 08/29/16

Metal	MC47535-7 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	8.30	10.5	26.5 (a)	0-10
Barium	175	187	6.8	0-10
Beryllium				
Bismuth				
Boron				
Cadmium	0.300	0.00	100.0(a)	0-10
Calcium				
Chromium	48.7	52.3	7.4	0-10
Cobalt				
Copper				
Gold				
Iron				
Lead	33.7	32.0	5.0	0-10
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Palladium				
Platinum				
Potassium				
Selenium	0.00	0.00	NC	0-10
Silicon				
Silver	0.00	0.00	NC	0-10
Sodium				
Sulfur				
Strontium				
Thallium				
Tin				
Titanium				
Tungsten				

9.1.4
9

SERIAL DILUTION RESULTS SUMMARY

Login Number: MC47535
Account: CDRMRHCT - CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26704
Matrix Type: SOLID

Methods: SW846 6010C
Units: ug/l

Prep Date: 08/29/16

Metal	MC47535-7 Original SDL 1:5	%DIF	QC Limits
-------	-------------------------------	------	--------------

Vanadium

Zinc

Zirconium

Associated samples MP26704: MC47535-1, MC47535-2, MC47535-3, MC47535-4, MC47535-5, MC47535-6, MC47535-7, MC47535-8, MC47535-9

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

9.1.4

9

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC47535
Account: CDRMRHCT - CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26705
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 08/29/16 08/29/16

Metal	RL	IDL	MDL	MB raw	final	MB raw	final
Aluminum	200	26	25				
Antimony	6.0	1.8	1.2				
Arsenic	4.0	2.8	2	0.80	<4.0	0.80	<4.0
Barium	50	.5	.57	0.0	<50	2.0	<50
Beryllium	4.0	.18	.34				
Bismuth	50	3.1	1.8				
Boron	100	1.4	2.3				
Cadmium	4.0	.2	.3	0.0	<4.0	0.10	<4.0
Calcium	5000	11	18				
Chromium	10	.57	1.1	0.10	<10	0.30	<10
Cobalt	50	.26	.41				
Copper	25	.55	4.2				
Gold	50	1.2	1.3				
Iron	100	4.7	16				
Lead	5.0	1.1	1.1	0.0	<5.0	0.10	<5.0
Lithium	500	5.2	1.8				
Magnesium	5000	47	56				
Manganese	15	.051	.41				
Molybdenum	100	1.6	16				
Nickel	40	.34	.35				
Palladium	50	1.8	1.4				
Platinum	50	8.7	4.7				
Potassium	5000	74	78				
Selenium	10	2.8	3.4	0.40	<10	0.40	<10
Silicon	100	15	11				
Silver	5.0	.75	1.4	-0.20	<5.0	0.0	<5.0
Sodium	5000	23	35				
Sulfur	50	3.7	3.3				
Strontium	10	.27	.17				
Thallium	5.0	1.2	1.8				
Tin	100	.52	2.2				
Titanium	50	.54	.99				
Tungsten	100	4	23				

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC47535
Account: CDRMRHCT - CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26705
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 08/29/16 08/29/16

Metal	RL	IDL	MDL	MB raw	final	MB raw	final
-------	----	-----	-----	-----------	-------	-----------	-------

Vanadium	10	.52	.4				
Zinc	20	.79	1				
Zirconium	50	.36	2.6				

Associated samples MP26705: MC47535-10, MC47535-11, MC47535-10F, MC47535-11F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

9.2.1
9

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC47535
 Account: CDRMRHCT - CDR Maguire
 Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26705
 Matrix Type: AQUEOUS

Methods: SW846 6010C
 Units: ug/l

Prep Date: 08/29/16

Metal	MC47535-11F Original MS		SpikeLot MPICP7	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic	0.0	532	500	106.4	75-125
Barium	207	2190	2000	99.2	75-125
Beryllium					
Bismuth					
Boron					
Cadmium	0.20	516	500	103.2	75-125
Calcium	anr				
Chromium	0.0	483	500	96.6	75-125
Cobalt					
Copper	anr				
Gold					
Iron					
Lead	0.0	989	1000	98.9	75-125
Lithium					
Magnesium					
Manganese					
Molybdenum					
Nickel					
Palladium					
Platinum					
Potassium					
Selenium	6.4	520	500	102.7	75-125
Silicon					
Silver	0.0	188	200	94.0	75-125
Sodium					
Sulfur					
Strontium					
Thallium					
Tin					
Titanium					
Tungsten					

9.2.2
9

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC47535
Account: CDRMRHCT - CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26705
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 08/29/16

Metal	MC47535-11F Original MS	SpikeLot MPICP7	% Rec	QC Limits
-------	----------------------------	--------------------	-------	--------------

Vanadium

Zinc

Zirconium

Associated samples MP26705: MC47535-10, MC47535-11, MC47535-10F, MC47535-11F

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC47535
 Account: CDRMRHCT - CDR Maguire
 Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26705
 Matrix Type: AQUEOUS

Methods: SW846 6010C
 Units: ug/l

Prep Date: 08/29/16

Metal	MC47535-11F Original MSD		SpikeLot MPICP7	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	0.0	532	500	106.4	0.0	20
Barium	207	2170	2000	98.2	0.9	20
Beryllium						
Bismuth						
Boron						
Cadmium	0.20	514	500	102.8	0.4	20
Calcium	anr					
Chromium	0.0	476	500	95.2	1.5	20
Cobalt						
Copper	anr					
Gold						
Iron						
Lead	0.0	983	1000	98.3	0.6	20
Lithium						
Magnesium						
Manganese						
Molybdenum						
Nickel						
Palladium						
Platinum						
Potassium						
Selenium	6.4	518	500	102.3	0.4	20
Silicon						
Silver	0.0	186	200	93.0	1.1	20
Sodium						
Sulfur						
Strontium						
Thallium						
Tin						
Titanium						
Tungsten						

9.2.2
9

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC47535
 Account: CDRMRHCT - CDR Maguire
 Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26705
 Matrix Type: AQUEOUS

Methods: SW846 6010C
 Units: ug/l

Prep Date: 08/29/16

Metal	MC47535-11F Original MSD	Spike/lot MPICP7	% Rec	MSD RPD	QC Limit
-------	-----------------------------	---------------------	-------	------------	-------------

Vanadium

Zinc

Zirconium

Associated samples MP26705: MC47535-10, MC47535-11, MC47535-10F, MC47535-11F

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

9.2.2
 9

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC47535
 Account: CDRMRHCT - CDR Maguire
 Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26705
 Matrix Type: AQUEOUS

Methods: SW846 6010C
 Units: ug/l

Prep Date: 08/29/16 08/29/16

Metal	BSP Result	Spikelot MPICP7	% Rec	QC Limits	BSD Result	Spikelot MPICP7	% Rec	BSD RPD	QC Limit
Aluminum									
Antimony									
Arsenic	520	500	104.0	80-120	517	500	103.4	0.6	20
Barium	1960	2000	98.0	80-120	1950	2000	97.5	0.5	20
Beryllium									
Bismuth									
Boron									
Cadmium	513	500	102.6	80-120	510	500	102.0	0.6	20
Calcium	anr								
Chromium	474	500	94.8	80-120	471	500	94.2	0.6	20
Cobalt									
Copper	anr								
Gold									
Iron									
Lead	975	1000	97.5	80-120	972	1000	97.2	0.3	20
Lithium									
Magnesium									
Manganese									
Molybdenum									
Nickel									
Palladium									
Platinum									
Potassium									
Selenium	501	500	100.2	80-120	500	500	100.0	0.2	20
Silicon									
Silver	185	200	92.5	80-120	186	200	93.0	0.5	20
Sodium									
Sulfur									
Strontium									
Thallium									
Tin									
Titanium									
Tungsten									

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC47535
 Account: CDRMRHCT - CDR Maguire
 Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26705
 Matrix Type: AQUEOUS

Methods: SW846 6010C
 Units: ug/l

Prep Date: 08/29/16 08/29/16

Metal	BSP Result	Spikelot MPICP7	% Rec	QC Limits	BSD Result	Spikelot MPICP7	% Rec	BSD RPD	QC Limit
-------	---------------	--------------------	-------	--------------	---------------	--------------------	-------	------------	-------------

Vanadium

Zinc

Zirconium

Associated samples MP26705: MC47535-10, MC47535-11, MC47535-10F, MC47535-11F

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: MC47535
 Account: CDRMRHCT - CDR Maguire
 Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26705
 Matrix Type: AQUEOUS

Methods: SW846 6010C
 Units: ug/l

Prep Date: 08/29/16

Metal	MC47535-11F Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	0.00	0.00	NC	0-10
Barium	207	208	0.7	0-10
Beryllium				
Bismuth				
Boron				
Cadmium	0.200	0.00	100.0(a)	0-10
Calcium	anr			
Chromium	0.00	0.00	NC	0-10
Cobalt				
Copper	anr			
Gold				
Iron				
Lead	0.00	0.00	NC	0-10
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Palladium				
Platinum				
Potassium				
Selenium	6.40	0.00	100.0(a)	0-10
Silicon				
Silver	0.00	0.00	NC	0-10
Sodium				
Sulfur				
Strontium				
Thallium				
Tin				
Titanium				
Tungsten				

9.2.4
9

SERIAL DILUTION RESULTS SUMMARY

Login Number: MC47535
Account: CDRMRHCT - CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26705
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 08/29/16

Metal	MC47535-11F	QC
	Original SDL 1:5	%DIF Limits

Vanadium

Zinc

Zirconium

Associated samples MP26705: MC47535-10, MC47535-11, MC47535-10F, MC47535-11F

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC47535
Account: CDRMRHCT - CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26712
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 08/30/16 08/30/16

Metal	RL	IDL	MDL	MB raw	final	MB raw	final
Mercury	0.20	.038	.034	-0.052	<0.20	-0.038	<0.20

Associated samples MP26712: MC47535-10, MC47535-11, MC47535-10F, MC47535-11F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC47535
Account: CDRMRHCT - CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26712
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 08/30/16

Metal	MC47535-10F Original MS		SpikeLot HGRWS1	% Rec	QC Limits
Mercury	0.0	2.9	3	96.7	75-125

Associated samples MP26712: MC47535-10, MC47535-11, MC47535-10F, MC47535-11F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC47535
 Account: CDRMRHCT - CDR Maguire
 Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26712 Methods: SW846 7470A
 Matrix Type: AQUEOUS Units: ug/l

Prep Date: 08/30/16

Metal	MC47535-10F Original MSD	SpikeLot HGRWS1	% Rec	MSD RPD	QC Limit
Mercury	0.0	2.9	3	96.7	0.0 20

Associated samples MP26712: MC47535-10, MC47535-11, MC47535-10F, MC47535-11F

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC47535
 Account: CDRMRHCT - CDR Maguire
 Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26712 Methods: SW846 7470A
 Matrix Type: AQUEOUS Units: ug/l

Prep Date: 08/30/16 08/30/16

Metal	BSP Result	Spikelot HGRWS1	% Rec	QC Limits	BSD Result	Spikelot HGRWS1	% Rec	BSD RPD	QC Limit
Mercury	2.9	3	96.7	80-120	2.9	3	96.7	0.0	20

Associated samples MP26712: MC47535-10, MC47535-11, MC47535-10F, MC47535-11F

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

9.3.3
 9

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC47535
Account: CDRMRHCT - CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26716
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date: 08/31/16

Metal	RL	IDL	MDL	MB raw	final
Aluminum	0.20	.0074	.025		
Antimony	0.0060	.001	.0012		
Arsenic	0.010	.0011	.002	-0.00030	<0.010
Barium	0.50	.00015	.00057	0.00010	<0.50
Beryllium	0.0040	.00013	.00034		
Bismuth	0.050	.00087	.0018		
Boron	0.10	.0012	.0023		
Cadmium	0.0040	.00015	.0003	-0.00010	<0.0040
Calcium	5.0	.0093	.018		
Chromium	0.010	.00028	.0011	0.0	<0.010
Cobalt	0.050	.00015	.00041		
Copper	0.025	.0015	.0042		
Gold	0.050	.00088	.0013		
Iron	0.10	.0017	.016		
Lead	0.010	.00071	.0011	-0.00040	<0.010
Lithium	0.50	.0012	.0018		
Magnesium	5.0	.017	.056		
Manganese	0.015	.00004	.00041		
Molybdenum	0.10	.00019	.016		
Nickel	0.040	.00018	.00035		
Palladium	0.050	.00078	.0014		
Platinum	0.050	.0034	.0047		
Potassium	5.0	.018	.078		
Selenium	0.025	.0018	.0034	0.0	<0.025
Silicon	0.10	.00083	.03		
Silver	0.0050	.00042	.0014	-0.00010	<0.0050
Sodium	5.0	.0092	.035		
Sulfur	0.050	.002	.0033		
Strontium	0.010	.00004	.00017		
Thallium	0.0050	.0008	.0018		
Tin	0.10	.00064	.0022		
Titanium	0.050	.00036	.00099		
Tungsten	0.10	.0027	.023		

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC47535
Account: CDRMRHCT - CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26716
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date: 08/31/16

Metal	RL	IDL	MDL	MB	
				raw	final

Vanadium 0.010 .00026 .0004

Zinc 0.10 .00018 .001

Zirconium 0.050 .00025 .0026

Associated samples MP26716: MC47535-1A, MC47535-2A, MC47535-3A, MC47535-4A, MC47535-5A, MC47535-6A, MC47535-7A, MC47535-8A, MC47535-9A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC47535
 Account: CDRMRHCT - CDR Maguire
 Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26716
 Matrix Type: LEACHATE

Methods: SW846 6010C
 Units: mg/l

Prep Date: 08/31/16

Metal	MC47535-1A Original MS		SpikeLot MPICP7	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic	0.0017	0.51	0.50	101.7	75-125
Barium	0.018	1.9	2.0	94.1	75-125
Beryllium					
Bismuth					
Boron					
Cadmium	0.0	0.50	0.50	100.0	75-125
Calcium					
Chromium	0.0021	0.47	0.50	93.6	75-125
Cobalt					
Copper					
Gold					
Iron					
Lead	0.029	1.0	1.0	97.1	75-125
Lithium					
Magnesium					
Manganese					
Molybdenum					
Nickel					
Palladium					
Platinum					
Potassium					
Selenium	0.0	0.49	0.50	98.0	75-125
Silicon					
Silver	0.0	0.18	0.20	90.0	75-125
Sodium					
Sulfur					
Strontium					
Thallium					
Tin					
Titanium					
Tungsten					

9.4.2
9

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC47535
 Account: CDRMRHCT - CDR Maguire
 Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26716
 Matrix Type: LEACHATE

Methods: SW846 6010C
 Units: mg/l

Prep Date: 08/31/16

Metal	MC47535-1A Original MS	Spike/lot MPICP7	% Rec	QC Limits
-------	---------------------------	---------------------	-------	--------------

Vanadium

Zinc

Zirconium

Associated samples MP26716: MC47535-1A, MC47535-2A, MC47535-3A, MC47535-4A, MC47535-5A, MC47535-6A, MC47535-7A, MC47535-8A, MC47535-9A

Results < IDL are shown as zero for calculation purposes

- (*) Outside of QC limits
- (N) Matrix Spike Rec. outside of QC limits
- (anr) Analyte not requested

9.4.2
9

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC47535
 Account: CDRMRHCT - CDR Maguire
 Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26716
 Matrix Type: LEACHATE

Methods: SW846 6010C
 Units: mg/l

Prep Date: 08/31/16

Metal	MC47535-1A Original MSD		Spike/lot MPICP7	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	0.0017	0.51	0.50	101.7	0.0	20
Barium	0.018	1.9	2.0	94.1	0.0	20
Beryllium						
Bismuth						
Boron						
Cadmium	0.0	0.50	0.50	100.0	0.0	20
Calcium						
Chromium	0.0021	0.47	0.50	93.6	0.0	20
Cobalt						
Copper						
Gold						
Iron						
Lead	0.029	0.99	1.0	96.1	1.0	20
Lithium						
Magnesium						
Manganese						
Molybdenum						
Nickel						
Palladium						
Platinum						
Potassium						
Selenium	0.0	0.48	0.50	96.0	2.1	20
Silicon						
Silver	0.0	0.18	0.20	90.0	0.0	20
Sodium						
Sulfur						
Strontium						
Thallium						
Tin						
Titanium						
Tungsten						

9.4.2
9

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC47535
 Account: CDRMRHCT - CDR Maguire
 Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26716 Methods: SW846 6010C
 Matrix Type: LEACHATE Units: mg/l

Prep Date: 08/31/16

Metal	MC47535-1A Original MSD	Spike/lot MPICP7 % Rec	MSD RPD	QC Limit
-------	----------------------------	---------------------------	------------	-------------

Vanadium

Zinc

Zirconium

Associated samples MP26716: MC47535-1A, MC47535-2A, MC47535-3A, MC47535-4A, MC47535-5A, MC47535-6A, MC47535-7A, MC47535-8A, MC47535-9A

Results < IDL are shown as zero for calculation purposes

- (*) Outside of QC limits
- (N) Matrix Spike Rec. outside of QC limits
- (anr) Analyte not requested

9.4.2
9

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC47535
 Account: CDRMRHCT - CDR Maguire
 Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26716
 Matrix Type: LEACHATE

Methods: SW846 6010C
 Units: mg/l

Prep Date: 08/31/16 08/31/16

Metal	BSP Result	Spikelot MPICP7	% Rec	QC Limits	BSD Result	Spikelot MPICP7	% Rec	BSD RPD	QC Limit
Aluminum									
Antimony									
Arsenic	0.51	0.50	102.0	80-120	0.51	0.50	102.0	0.0	20
Barium	1.9	2.0	95.0	80-120	1.9	2.0	95.0	0.0	20
Beryllium									
Bismuth									
Boron									
Cadmium	0.50	0.50	100.0	80-120	0.50	0.50	100.0	0.0	20
Calcium									
Chromium	0.47	0.50	94.0	80-120	0.47	0.50	94.0	0.0	20
Cobalt									
Copper									
Gold									
Iron									
Lead	0.96	1.0	96.0	80-120	0.97	1.0	97.0	1.0	20
Lithium									
Magnesium									
Manganese									
Molybdenum									
Nickel									
Palladium									
Platinum									
Potassium									
Selenium	0.49	0.50	98.0	80-120	0.49	0.50	98.0	0.0	20
Silicon									
Silver	0.18	0.20	90.0	80-120	0.18	0.20	90.0	0.0	20
Sodium									
Sulfur									
Strontium									
Thallium									
Tin									
Titanium									
Tungsten									

9.4.3
9

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC47535
 Account: CDRMRHCT - CDR Maguire
 Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26716
 Matrix Type: LEACHATE

Methods: SW846 6010C
 Units: mg/l

Prep Date: 08/31/16 08/31/16

Metal	BSP Result	Spikelot MPICP7	% Rec	QC Limits	BSD Result	Spikelot MPICP7	% Rec	BSD RPD	QC Limit
-------	---------------	--------------------	-------	--------------	---------------	--------------------	-------	------------	-------------

Vanadium

Zinc

Zirconium

Associated samples MP26716: MC47535-1A, MC47535-2A, MC47535-3A, MC47535-4A, MC47535-5A, MC47535-6A, MC47535-7A, MC47535-8A, MC47535-9A

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

9.4.3

9

SERIAL DILUTION RESULTS SUMMARY

Login Number: MC47535
 Account: CDRMRHCT - CDR Maguire
 Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26716
 Matrix Type: LEACHATE

Methods: SW846 6010C
 Units: ug/l

Prep Date: 08/31/16

Metal	MC47535-1A Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	1.70	6.30	270.6(a)	0-10
Barium	17.5	18.8	7.4	0-10
Beryllium				
Bismuth				
Boron				
Cadmium	0.00	0.00	NC	0-10
Calcium				
Chromium	2.10	2.30	9.5	0-10
Cobalt				
Copper				
Gold				
Iron				
Lead	28.6	28.7	0.3	0-10
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Palladium				
Platinum				
Potassium				
Selenium	0.00	0.00	NC	0-10
Silicon				
Silver	0.00	0.00	NC	0-10
Sodium				
Sulfur				
Strontium				
Thallium				
Tin				
Titanium				
Tungsten				

9.4.4
9

SERIAL DILUTION RESULTS SUMMARY

Login Number: MC47535
Account: CDRMRHCT - CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26716
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: ug/l

Prep Date: 08/31/16

Metal	MC47535-1A Original SDL 1:5	%DIF	QC Limits
-------	--------------------------------	------	--------------

Vanadium

Zinc

Zirconium

Associated samples MP26716: MC47535-1A, MC47535-2A, MC47535-3A, MC47535-4A, MC47535-5A, MC47535-6A, MC47535-7A, MC47535-8A, MC47535-9A

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC47535
Account: CDRMRHCT - CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26719
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date: 08/31/16

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.033	.0058	.0057	0.0072	<0.033

Associated samples MP26719: MC47535-1, MC47535-2, MC47535-3, MC47535-4, MC47535-5, MC47535-6, MC47535-7, MC47535-8, MC47535-9

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC47535
 Account: CDRMRHCT - CDR Maguire
 Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26719
 Matrix Type: SOLID

Methods: SW846 7471B
 Units: mg/kg

Prep Date: 08/31/16

Metal	MC47535-7 Original MS	SpikeLot HGRWS1	% Rec	QC Limits
Mercury	0.0	0.41	0.484	84.8 80-120

Associated samples MP26719: MC47535-1, MC47535-2, MC47535-3, MC47535-4, MC47535-5, MC47535-6, MC47535-7, MC47535-8, MC47535-9

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC47535
 Account: CDRMRHCT - CDR Maguire
 Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26719
 Matrix Type: SOLID

Methods: SW846 7471B
 Units: mg/kg

Prep Date: 08/31/16

Metal	MC47535-7 Original MSD	Spike HGRWSI	lot % Rec	MSD RPD	QC Limit
Mercury	0.0	0.44	0.469	93.8	7.1 20

Associated samples MP26719: MC47535-1, MC47535-2, MC47535-3, MC47535-4, MC47535-5, MC47535-6, MC47535-7, MC47535-8, MC47535-9

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC47535
 Account: CDRMRHCT - CDR Maguire
 Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26719
 Matrix Type: SOLID

Methods: SW846 7471B
 Units: mg/kg

Prep Date: 08/31/16 08/31/16

Metal	BSP Result	Spikelot HGRWS1	% Rec	QC Limits	LCS Result	Spikelot HGLCS86	% Rec	QC Limits
Mercury	0.42	0.5	84.0	80-120	15.1	20.2	74.8	71-129

Associated samples MP26719: MC47535-1, MC47535-2, MC47535-3, MC47535-4, MC47535-5, MC47535-6, MC47535-7, MC47535-8, MC47535-9

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC47535
 Account: CDRMRHCT - CDR Maguire
 Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26719
 Matrix Type: SOLID

Methods: SW846 7471B
 Units: mg/kg

Prep Date: 08/31/16

Metal	BSD Result	Spikelot HGRWS1	% Rec	BSD RPD	QC Limit
Mercury	0.42	0.5	84.0	0.0	20

Associated samples MP26719: MC47535-1, MC47535-2, MC47535-3, MC47535-4, MC47535-5, MC47535-6, MC47535-7, MC47535-8, MC47535-9

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

9.5.3
 9

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC47535
Account: CDRMRHCT - CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26722
Matrix Type: LEACHATE

Methods: SW846 7470A
Units: mg/l

Prep Date: 09/01/16

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.00020	.000038	.000034	0.000045	<0.00020

Associated samples MP26722: MC47535-1A, MC47535-2A, MC47535-3A, MC47535-4A, MC47535-5A, MC47535-6A, MC47535-7A, MC47535-8A, MC47535-9A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC47535
 Account: CDRMRHCT - CDR Maguire
 Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26722
 Matrix Type: LEACHATE

Methods: SW846 7470A
 Units: mg/l

Prep Date: 09/01/16

Metal	MC47535-1A Original MS	Spike HGRWS1	% Rec	QC Limits	
Mercury	0.0	0.0029	0.0030	96.7	75-125

Associated samples MP26722: MC47535-1A, MC47535-2A, MC47535-3A, MC47535-4A, MC47535-5A, MC47535-6A, MC47535-7A, MC47535-8A, MC47535-9A

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

9.6.2
9

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC47535
 Account: CDRMRHCT - CDR Maguire
 Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26722 Methods: SW846 7470A
 Matrix Type: LEACHATE Units: mg/l

Prep Date: 09/01/16

Metal	MC47535-1A Original MSD	SpikeLot HGRWS1	% Rec	MSD RPD	QC Limit
Mercury	0.0	0.0030	100.0	3.4	

Associated samples MP26722: MC47535-1A, MC47535-2A, MC47535-3A, MC47535-4A, MC47535-5A, MC47535-6A, MC47535-7A, MC47535-8A, MC47535-9A

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

9.6.2
 9

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC47535
 Account: CDRMRHCT - CDR Maguire
 Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26722
 Matrix Type: LEACHATE

Methods: SW846 7470A
 Units: mg/l

Prep Date: 09/01/16 09/01/16

Metal	BSP Result	Spikelot HGRWS1	% Rec	QC Limits	BSD Result	Spikelot HGRWS1	% Rec	BSD RPD	QC Limit
Mercury	0.0030	0.0030	100.0	80-120	0.0029	0.0030	96.7	3.4	

Associated samples MP26722: MC47535-1A, MC47535-2A, MC47535-3A, MC47535-4A, MC47535-5A, MC47535-6A, MC47535-7A, MC47535-8A, MC47535-9A

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

9.6.3
9

Technical Report for

CDR Maguire

424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

0092-0531

SGS Accutest Job Number: MC47506

Sampling Date: 08/24/16

Report to:

CDR Maguire
2080 Silas Deane Highway
Rocky Hill, CT 06067
jane.witherell@cdrmaguire.com

ATTN: Jane Witherell

Total number of pages in report: 261



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

H. (Brad) Madadian
Lab Director

Client Service contact: Jeremy Vienneau 508-481-6200

Certifications: MA (M-MA136, SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of SGS Accutest.
Test results relate only to samples analyzed.

Table of Contents

-1-

Section 1: Sample Summary	4
Section 2: Case Narrative/Conformance Summary	7
Section 3: Summary of Hits	10
Section 4: Sample Results	16
4.1: MC47506-1: GP-4C	17
4.2: MC47506-1A: GP-4C	25
4.3: MC47506-2: GP-14C	26
4.4: MC47506-2A: GP-14C	35
4.5: MC47506-3: GP-9C	36
4.6: MC47506-3A: GP-9C	44
4.7: MC47506-4: GP-15C	45
4.8: MC47506-4A: GP-15C	54
4.9: MC47506-5: GP-12C	55
4.10: MC47506-5A: GP-12C	63
4.11: MC47506-6: GP-13	64
4.12: MC47506-6A: GP-13	72
4.13: MC47506-7: GP-4	73
4.14: MC47506-7A: GP-4	81
4.15: MC47506-8: GP-14	82
4.16: MC47506-8A: GP-14	91
4.17: MC47506-9: GP-5	92
4.18: MC47506-9A: GP-5	100
4.19: MC47506-10: GP-3	101
4.20: MC47506-10A: GP-3	109
4.21: MC47506-11: GP-2	110
4.22: MC47506-11A: GP-2	118
4.23: MC47506-12: GP-1	119
4.24: MC47506-12A: GP-1	127
4.25: MC47506-13: GP-9	128
4.26: MC47506-13A: GP-9	136
4.27: MC47506-14: GP-15	137
4.28: MC47506-14A: GP-15	146
4.29: MC47506-15: GP-12	147
4.30: MC47506-15A: GP-12	155
Section 5: Misc. Forms	156
5.1: Chain of Custody	157
5.2: RCP Form	161
5.3: Sample Tracking Chronicle	162
5.4: QC Evaluation: CT RCP Limits	169
Section 6: GC/MS Volatiles - QC Data Summaries	183
6.1: Method Blank Summary	184
6.2: Blank Spike Summary	193

Table of Contents

-2-

6.3: Internal Standard Area Summaries	202
6.4: Surrogate Recovery Summaries	205
Section 7: GC/MS Semi-volatiles - QC Data Summaries	206
7.1: Method Blank Summary	207
7.2: Blank Spike Summary	213
7.3: Internal Standard Area Summaries	219
7.4: Surrogate Recovery Summaries	222
Section 8: GC Semi-volatiles - QC Data Summaries	223
8.1: Method Blank Summary	224
8.2: Blank Spike Summary	226
8.3: Surrogate Recovery Summaries	228
Section 9: Metals Analysis - QC Data Summaries	230
9.1: Prep QC MP26696: As,Ba,Cd,Cr,Pb,Se,Ag	231
9.2: Prep QC MP26708: As,Ba,Cd,Cr,Pb,Se,Ag	243
9.3: Prep QC MP26713: Hg	253
9.4: Prep QC MP26718: Hg	257

1

2

3

4

5

6

7

8

9



Sample Summary

CDR Maguire

Job No: MC47506

424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
 Project No: 0092-0531

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
MC47506-1	08/24/16	07:30 JB	08/25/16	SO	Soil	GP-4C
MC47506-1A	08/24/16	07:30 JB	08/25/16	SO	Soil	GP-4C
MC47506-2	08/24/16	08:30 JB	08/25/16	SO	Soil	GP-14C
MC47506-2A	08/24/16	08:30 JB	08/25/16	SO	Soil	GP-14C
MC47506-3	08/24/16	09:30 JB	08/25/16	SO	Soil	GP-9C
MC47506-3A	08/24/16	09:30 JB	08/25/16	SO	Soil	GP-9C
MC47506-4	08/24/16	09:35 JB	08/25/16	SO	Soil	GP-15C
MC47506-4A	08/24/16	09:35 JB	08/25/16	SO	Soil	GP-15C
MC47506-5	08/24/16	10:00 JB	08/25/16	SO	Soil	GP-12C
MC47506-5A	08/24/16	10:00 JB	08/25/16	SO	Soil	GP-12C
MC47506-6	08/24/16	11:30 JB	08/25/16	SO	Soil	GP-13
MC47506-6A	08/24/16	11:30 JB	08/25/16	SO	Soil	GP-13
MC47506-7	08/24/16	11:40 JB	08/25/16	SO	Soil	GP-4

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Sample Summary

(continued)

CDR Maguire

Job No: MC47506

424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Project No: 0092-0531

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
MC47506-7A	08/24/16	11:40 JB	08/25/16	SO	Soil	GP-4
MC47506-8	08/24/16	12:00 JB	08/25/16	SO	Soil	GP-14
MC47506-8A	08/24/16	12:00 JB	08/25/16	SO	Soil	GP-14
MC47506-9	08/24/16	12:15 JB	08/25/16	SO	Soil	GP-5
MC47506-9A	08/24/16	12:15 JB	08/25/16	SO	Soil	GP-5
MC47506-10	08/24/16	12:20 JB	08/25/16	SO	Soil	GP-3
MC47506-10A	08/24/16	12:20 JB	08/25/16	SO	Soil	GP-3
MC47506-11	08/24/16	12:25 JB	08/25/16	SO	Soil	GP-2
MC47506-11A	08/24/16	12:25 JB	08/25/16	SO	Soil	GP-2
MC47506-12	08/24/16	12:40 JB	08/25/16	SO	Soil	GP-1
MC47506-12A	08/24/16	12:40 JB	08/25/16	SO	Soil	GP-1
MC47506-13	08/24/16	13:00 JB	08/25/16	SO	Soil	GP-9
MC47506-13A	08/24/16	13:00 JB	08/25/16	SO	Soil	GP-9

Soil samples reported on a dry weight basis unless otherwise indicated on result page.



Sample Summary

(continued)

CDR Maguire

Job No: MC47506

424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
 Project No: 0092-0531

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
MC47506-14	08/24/16	13:15 JB	08/25/16	SO	Soil	GP-15
MC47506-14A	08/24/16	13:15 JB	08/25/16	SO	Soil	GP-15
MC47506-15	08/24/16	13:20 JB	08/25/16	SO	Soil	GP-12
MC47506-15A	08/24/16	13:20 JB	08/25/16	SO	Soil	GP-12

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: CDR Maguire

Job No MC47506

Site: 424 Chapel Street, Phase II Environmental Assessment, New Haven,

Report Date 9/1/2016 4:39:59 PM

15 Sample(s) were collected on 08/24/2016 and were received at SGS Accutest New England on 08/25/2016 properly preserved, at 0.4 Deg. C and intact. These Samples received a job number of MC47506. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260C

Matrix: SO

Batch ID: MSL4337

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- MSL4337-BS for Bromomethane, 2-Hexanone: Outside RCP control limits.
- Continuing calibration check standard MSL4337-CC4322 for chloroethane, Vinyl chloride, 1,2,3-trichlorobenzene exceed 20% Difference (biased low). Reporting Limit response verified by low-level standard.
- Quadratic regression is employed for initial calibration standard MSL4322-ICC4322 for bromomethane, chloroethane, m,p-xylene.
- Continuing calibration check standard MSL4337-CC4322 for dichlorodifluoromethane, bromomethane, 2,2-dichloropropane, 2-hexanone (biased high). Associated samples are non-detect for this compound.

Matrix: SO

Batch ID: MSM2884

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Quadratic regression is employed for initial calibration standard MSM2881-ICC2881 for 2-butanone.
- MC47506-2 for Dibromofluoromethane: Outside control limits due to possible matrix interference. Confirmed by reanalysis.
- Initial Calibration Verification MSM2881-ICV2881 for Acetone, 2-butanone exceed 30% difference (biased high). Associated sample result may be biased high or non-detect for this compound.
- Continuing calibration check standard MSM2884-CC2881 for bromomethane, chloroethane exceed 20% Difference (biased high). Associated samples are non-detect for this compound.
- MC47506-1 for Dibromofluoromethane: Outside RCP control limits.

Matrix: SO

Batch ID: MSM2885

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Continuing calibration check standard MSM2885-CC2881 for chloromethane, bromomethane, chloroethane, trichlorofluoromethane exceed 20% Difference (biased high). Associated samples are non-detect for this compound.
- MC47506-2: Confirmation run for surrogate recoveries.
- Initial Calibration Verification MSM2881-ICV2881 for Acetone, 2-butanone exceed 30% difference (biased high). Associated sample result may be biased high or non-detect for this compound.
- MC47506-2 for Dibromofluoromethane: Outside control limits due to possible matrix interference. Confirmed by reanalysis.

Thursday, September 01, 2016

Page 1 of 3

Extractables by GCMS By Method SW846 8270D

Matrix: SO

Batch ID: OP48551

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for 2,4-Dinitrophenol, 4,6-Dinitro-o-cresol are outside control limits. Associated samples are not reported for this compound.
- Quadratic regression is employed for initial calibration standard MSW1188-ICC1188 for Hexachlorocyclopentadiene, 2,4-Dinitrophenol, 4,6-Dinitro-2-methylphenol, 2,4,6-Tribromophenol, Pentachlorophenol.
- Continuing calibration check standard MSW1195-CC1188 for 2-Nitrophenol, 2,4-Dinitrophenol, 2,4-Dinitrotoluene, 4-Nitrophenol, 2-nitroaniline, 3-nitroaniline, 4,6-Dinitro-2-methylphenol, Butylbenzylphthalate exceed 20% Difference (biased high). Associated samples are non-detect for this compound.

Matrix: SO

Batch ID: OP48552

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Quadratic regression is employed for initial calibration standard MSX405-ICC405 for Fluorene, Pentachlorophenol, Fluoranthene, bis(2-Ethylhexyl)phthalate.
- MC47506-1: Confirmation run for surrogate recoveries.
- MC47506-2,3,4,5: Confirmation run for surrogate recoveries.
- MC47506-7: Elevated RL due to dilution required for matrix interference.
- Continuing Calibration MSX413-CC405 for Hexachlorocyclopentadiene, Di-n-octylphthalate and MSX414-CC405 for Hexachlorocyclopentadiene exceed 20% Difference (biased low). Reporting Limit Response verified by low-level standard.
- MC47506-1 through MC47506-5 for 2-Fluorophenol, Phenol-d5, 2,4,6-Tribromophenol: Outside control limits due to possible matrix interference. Confirmed by reanalysis.
- OP48552-BS for Hexachlorocyclopentadiene: Outside RCP control limits.

Extractables by GC By Method CT-ETPH 7/06

Matrix: SO

Batch ID: OP48556

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Extractables by GC By Method SW846 8082A

Matrix: SO

Batch ID: OP48554

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Metals By Method SW846 6010C

Matrix: LEACHATE **Batch ID:** MP26708

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC47506-1AMS, MC47506-1AMSD, MC47506-1ASDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Lead, Chromium are outside control limits for sample MP26708-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- MP26708-SD1 for Chromium: Serial dilution indicates possible matrix interference.
- Only selected metals requested.

Matrix: SO **Batch ID:** MP26696

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC47506-14MS, MC47506-14MSD, MC47506-14SDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Selenium, Silver are outside control limits for sample MP26696-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- Only selected metals requested.

Metals By Method SW846 7470A

Matrix: LEACHATE **Batch ID:** MP26713

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC47506-1AMS, MC47506-1AMSD were used as the QC samples for metals.

Metals By Method SW846 7471B

Matrix: SO **Batch ID:** MP26718

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC47506-14MS, MC47506-14MSD were used as the QC samples for metals.

Wet Chemistry By Method SM 2540G-97 MOD

Matrix: SO **Batch ID:** GN54676

- Sample(s) MC47506-14DUP were used as the QC samples for Solids, Percent.

SGS Accutest New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety. The Laboratory Director for SGS Accutest New England or assignee as verified by the signature on the cover page has authorized the release of this report(MC47506).

Summary of Hits

Job Number: MC47506
Account: CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
Collected: 08/24/16



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
---------------	------------------	-----------------	----	-----	-------	--------

MC47506-1 GP-4C

Acetone ^a	43.7	15			ug/kg	SW846 8260C
Carbon disulfide	10.0	7.6			ug/kg	SW846 8260C
CT-ETPH (C9-C36)	361	17			mg/kg	CT-ETPH 7/06
Arsenic	2.4	0.84			mg/kg	SW846 6010C
Barium	47.7	4.2			mg/kg	SW846 6010C
Chromium	18.4	0.84			mg/kg	SW846 6010C
Lead	3.6	0.84			mg/kg	SW846 6010C

MC47506-1A GP-4C

Chromium	0.021	0.010			mg/l	SW846 6010C
----------	-------	-------	--	--	------	-------------

MC47506-2 GP-14C

Acetone ^a	53.0	12			ug/kg	SW846 8260C
2-Hexanone	13.2	12			ug/kg	SW846 8260C
m,p-Xylene	3.8	2.4			ug/kg	SW846 8260C
CT-ETPH (C9-C36)	130	17			mg/kg	CT-ETPH 7/06
Aroclor 1254	75.7	35			ug/kg	SW846 8082A
Arsenic	4.6	0.87			mg/kg	SW846 6010C
Barium	46.7	4.3			mg/kg	SW846 6010C
Chromium	13.7	0.87			mg/kg	SW846 6010C
Lead	2.3	0.87			mg/kg	SW846 6010C

MC47506-2A GP-14C

Chromium	0.020	0.010			mg/l	SW846 6010C
----------	-------	-------	--	--	------	-------------

MC47506-3 GP-9C

Acetone ^a	22.2	13			ug/kg	SW846 8260C
Benzene	0.71	0.64			ug/kg	SW846 8260C
CT-ETPH (C9-C36)	130	21			mg/kg	CT-ETPH 7/06
Arsenic	2.8	0.90			mg/kg	SW846 6010C
Barium	48.2	4.5			mg/kg	SW846 6010C
Chromium	26.1	0.90			mg/kg	SW846 6010C
Lead	2.1	0.90			mg/kg	SW846 6010C

MC47506-3A GP-9C

Chromium	0.018	0.010			mg/l	SW846 6010C
----------	-------	-------	--	--	------	-------------

Summary of Hits

Job Number: MC47506
Account: CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
Collected: 08/24/16



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC47506-4		GP-15C				
Acetone ^a		75.9	14		ug/kg	SW846 8260C
bis(2-Ethylhexyl)phthalate		347	260		ug/kg	SW846 8270D
CT-ETPH (C9-C36)		135	18		mg/kg	CT-ETPH 7/06
Arsenic		2.6	0.84		mg/kg	SW846 6010C
Barium		44.4	4.2		mg/kg	SW846 6010C
Chromium		16.3	0.84		mg/kg	SW846 6010C
Lead		2.0	0.84		mg/kg	SW846 6010C
Silver		1.4	0.42		mg/kg	SW846 6010C
MC47506-4A		GP-15C				
Chromium		0.022	0.010		mg/l	SW846 6010C
MC47506-5		GP-12C				
Acetone ^a		66.6	12		ug/kg	SW846 8260C
CT-ETPH (C9-C36)		85.6	18		mg/kg	CT-ETPH 7/06
Arsenic		2.9	0.88		mg/kg	SW846 6010C
Barium		49.3	4.4		mg/kg	SW846 6010C
Chromium		16.5	0.88		mg/kg	SW846 6010C
Lead		3.4	0.88		mg/kg	SW846 6010C
MC47506-5A		GP-12C				
Chromium		0.020	0.010		mg/l	SW846 6010C
MC47506-6		GP-13				
Acetone ^a		131	14		ug/kg	SW846 8260C
Benzo(a)anthracene		276	120		ug/kg	SW846 8270D
Benzo(a)pyrene		333	290		ug/kg	SW846 8270D
Benzo(b)fluoranthene		360	120		ug/kg	SW846 8270D
Benzo(g,h,i)perylene		263	120		ug/kg	SW846 8270D
Benzo(k)fluoranthene		283	120		ug/kg	SW846 8270D
Chrysene		348	120		ug/kg	SW846 8270D
Fluoranthene		669	120		ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene		294	290		ug/kg	SW846 8270D
Phenanthrene		320	120		ug/kg	SW846 8270D
Pyrene		432	120		ug/kg	SW846 8270D
CT-ETPH (C9-C36)		201	19		mg/kg	CT-ETPH 7/06
Arsenic		4.0	0.93		mg/kg	SW846 6010C
Barium		65.1	4.7		mg/kg	SW846 6010C
Chromium		17.9	0.93		mg/kg	SW846 6010C

Summary of Hits

Job Number: MC47506
Account: CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
Collected: 08/24/16



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Lead		54.8	0.93		mg/kg	SW846 6010C
Mercury		0.073	0.037		mg/kg	SW846 7471B
MC47506-6A GP-13						
Lead		0.017	0.010		mg/l	SW846 6010C
MC47506-7 GP-4						
Benzo(a)anthracene ^b		396	220		ug/kg	SW846 8270D
Benzo(b)fluoranthene ^b		318	220		ug/kg	SW846 8270D
Benzo(g,h,i)perylene ^b		240	220		ug/kg	SW846 8270D
Benzo(k)fluoranthene ^b		288	220		ug/kg	SW846 8270D
Chrysene ^b		469	220		ug/kg	SW846 8270D
Fluoranthene ^b		1400	220		ug/kg	SW846 8270D
Phenanthrene ^b		1280	220		ug/kg	SW846 8270D
Pyrene ^b		955	220		ug/kg	SW846 8270D
CT-ETPH (C9-C36)		628	180		mg/kg	CT-ETPH 7/06
Arsenic		2.4	0.88		mg/kg	SW846 6010C
Barium		180	4.4		mg/kg	SW846 6010C
Chromium		9.0	0.88		mg/kg	SW846 6010C
Lead		41.7	0.88		mg/kg	SW846 6010C
Mercury		0.034	0.032		mg/kg	SW846 7471B
MC47506-7A GP-4						
Chromium		0.011	0.010		mg/l	SW846 6010C
Lead		0.019	0.010		mg/l	SW846 6010C
MC47506-8 GP-14						
Acetone ^a		36.3	10		ug/kg	SW846 8260C
Benzo(a)anthracene		120	110		ug/kg	SW846 8270D
Chrysene		115	110		ug/kg	SW846 8270D
Fluoranthene		237	110		ug/kg	SW846 8270D
Pyrene		169	110		ug/kg	SW846 8270D
CT-ETPH (C9-C36)		24.2	18		mg/kg	CT-ETPH 7/06
Arsenic		3.0	0.87		mg/kg	SW846 6010C
Barium		57.2	4.3		mg/kg	SW846 6010C
Chromium		11.6	0.87		mg/kg	SW846 6010C
Lead		24.0	0.87		mg/kg	SW846 6010C
Mercury		0.25	0.034		mg/kg	SW846 7471B

Summary of Hits

Job Number: MC47506
Account: CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
Collected: 08/24/16



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
---------------	------------------	-----------------	----	-----	-------	--------

MC47506-8A GP-14

No hits reported in this sample.

MC47506-9 GP-5

Naphthalene	4850	130		ug/kg	SW846 8260C
Benzo(a)anthracene	185	100		ug/kg	SW846 8270D
Benzo(b)fluoranthene	166	100		ug/kg	SW846 8270D
Benzo(g,h,i)perylene	139	100		ug/kg	SW846 8270D
Benzo(k)fluoranthene	140	100		ug/kg	SW846 8270D
Chrysene	199	100		ug/kg	SW846 8270D
Fluoranthene	388	100		ug/kg	SW846 8270D
Naphthalene	129	100		ug/kg	SW846 8270D
Phenanthrene	162	100		ug/kg	SW846 8270D
Pyrene	302	100		ug/kg	SW846 8270D
CT-ETPH (C9-C36)	70.7	18		mg/kg	CT-ETPH 7/06
Arsenic	1.2	0.87		mg/kg	SW846 6010C
Barium	65.5	4.3		mg/kg	SW846 6010C
Chromium	7.8	0.87		mg/kg	SW846 6010C
Lead	15.6	0.87		mg/kg	SW846 6010C

MC47506-9A GP-5

Lead	0.013	0.010		mg/l	SW846 6010C
------	-------	-------	--	------	-------------

MC47506-10 GP-3

Acetone ^a	33.5	9.4		ug/kg	SW846 8260C
Arsenic	2.0	0.87		mg/kg	SW846 6010C
Barium	26.0	4.3		mg/kg	SW846 6010C
Chromium	4.6	0.87		mg/kg	SW846 6010C
Lead	11.9	0.87		mg/kg	SW846 6010C
Mercury	0.034	0.034		mg/kg	SW846 7471B

MC47506-10A GP-3

Lead	0.017	0.010		mg/l	SW846 6010C
------	-------	-------	--	------	-------------

MC47506-11 GP-2

Acetone ^a	40.4	12		ug/kg	SW846 8260C
Arsenic	2.3	0.90		mg/kg	SW846 6010C
Barium	51.0	4.5		mg/kg	SW846 6010C
Chromium	12.0	0.90		mg/kg	SW846 6010C

Summary of Hits

Job Number: MC47506
Account: CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
Collected: 08/24/16



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
---------------	------------------	-----------------	----	-----	-------	--------

Lead		20.1	0.90		mg/kg	SW846 6010C
Mercury		0.037	0.033		mg/kg	SW846 7471B

MC47506-11A GP-2

No hits reported in this sample.

MC47506-12 GP-1

Acetone ^a		19.6	9.7		ug/kg	SW846 8260C
Benzo(a)anthracene		123	110		ug/kg	SW846 8270D
Benzo(b)fluoranthene		120	110		ug/kg	SW846 8270D
Chrysene		134	110		ug/kg	SW846 8270D
Fluoranthene		281	110		ug/kg	SW846 8270D
Pyrene		183	110		ug/kg	SW846 8270D
Arsenic		4.2	0.83		mg/kg	SW846 6010C
Barium		69.7	4.2		mg/kg	SW846 6010C
Chromium		21.3	0.83		mg/kg	SW846 6010C
Lead		86.1	0.83		mg/kg	SW846 6010C
Mercury		0.22	0.036		mg/kg	SW846 7471B
Silver		1.6	0.42		mg/kg	SW846 6010C

MC47506-12A GP-1

Lead		0.012	0.010		mg/l	SW846 6010C
------	--	-------	-------	--	------	-------------

MC47506-13 GP-9

Acetone ^a		45.0	8.5		ug/kg	SW846 8260C
Chloroform		11.6	1.7		ug/kg	SW846 8260C
Dichlorodifluoromethane		3.0	1.7		ug/kg	SW846 8260C
Fluoranthene		179	110		ug/kg	SW846 8270D
Pyrene		117	110		ug/kg	SW846 8270D
Arsenic		1.5	0.83		mg/kg	SW846 6010C
Barium		31.8	4.1		mg/kg	SW846 6010C
Chromium		7.2	0.83		mg/kg	SW846 6010C
Lead		28.9	0.83		mg/kg	SW846 6010C
Mercury		0.039	0.035		mg/kg	SW846 7471B

MC47506-13A GP-9

Lead		0.012	0.010		mg/l	SW846 6010C
------	--	-------	-------	--	------	-------------

Summary of Hits

Job Number: MC47506
Account: CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
Collected: 08/24/16



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
---------------	------------------	-----------------	----	-----	-------	--------

MC47506-14 GP-15

Acetone ^a	52.1	8.8			ug/kg	SW846 8260C
Chloroform	10.7	1.8			ug/kg	SW846 8260C
Benzo(a)anthracene	349	100			ug/kg	SW846 8270D
Benzo(a)pyrene	388	260			ug/kg	SW846 8270D
Benzo(b)fluoranthene	322	100			ug/kg	SW846 8270D
Benzo(k)fluoranthene	295	100			ug/kg	SW846 8270D
Chrysene	345	100			ug/kg	SW846 8270D
Fluoranthene	719	100			ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene	314	260			ug/kg	SW846 8270D
Phenanthrene	200	100			ug/kg	SW846 8270D
Pyrene	570	100			ug/kg	SW846 8270D
CT-ETPH (C9-C36)	67.0	17			mg/kg	CT-ETPH 7/06
Arsenic	1.8	0.88			mg/kg	SW846 6010C
Barium	47.2	4.4			mg/kg	SW846 6010C
Chromium	9.2	0.88			mg/kg	SW846 6010C
Lead	76.8	0.88			mg/kg	SW846 6010C
Mercury	0.080	0.034			mg/kg	SW846 7471B

MC47506-14A GP-15

Lead	0.016	0.010			mg/l	SW846 6010C
------	-------	-------	--	--	------	-------------

MC47506-15 GP-12

Acetone ^a	66.2	12			ug/kg	SW846 8260C
Trichloroethene	2.7	2.4			ug/kg	SW846 8260C
Benzo(b)fluoranthene	100	100			ug/kg	SW846 8270D
Fluoranthene	105	100			ug/kg	SW846 8270D
Pyrene	123	100			ug/kg	SW846 8270D
Arsenic	1.8	0.84			mg/kg	SW846 6010C
Barium	40.8	4.2			mg/kg	SW846 6010C
Chromium	11.9	0.84			mg/kg	SW846 6010C
Lead	21.7	0.84			mg/kg	SW846 6010C

MC47506-15A GP-12

No hits reported in this sample.

- (a) Initial Calibration Verification outside of acceptance criteria. Sample result may be biased high.
- (b) Elevated RL due to dilution required for matrix interference.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: GP-4C		Date Sampled: 08/24/16
Lab Sample ID: MC47506-1		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 95.2
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M80589.D	1	08/29/16	KP	n/a	n/a	MSM2884
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	3.45 g	5.0 ml
Run #2		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone ^a	43.7	15	ug/kg	
107-13-1	Acrylonitrile	ND	38	ug/kg	
71-43-2	Benzene	ND	0.76	ug/kg	
108-86-1	Bromobenzene	ND	7.6	ug/kg	
75-27-4	Bromodichloromethane	ND	3.0	ug/kg	
75-25-2	Bromoform	ND	3.0	ug/kg	
74-83-9	Bromomethane	ND	3.0	ug/kg	
78-93-3	2-Butanone (MEK)	ND	30	ug/kg	
104-51-8	n-Butylbenzene	ND	7.6	ug/kg	
135-98-8	sec-Butylbenzene	ND	7.6	ug/kg	
98-06-6	tert-Butylbenzene	ND	7.6	ug/kg	
75-15-0	Carbon disulfide	10.0	7.6	ug/kg	
56-23-5	Carbon tetrachloride	ND	3.0	ug/kg	
108-90-7	Chlorobenzene	ND	3.0	ug/kg	
75-00-3	Chloroethane	ND	7.6	ug/kg	
67-66-3	Chloroform	ND	3.0	ug/kg	
74-87-3	Chloromethane	ND	7.6	ug/kg	
95-49-8	o-Chlorotoluene	ND	7.6	ug/kg	
106-43-4	p-Chlorotoluene	ND	7.6	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	7.6	ug/kg	
124-48-1	Dibromochloromethane	ND	3.0	ug/kg	
106-93-4	1,2-Dibromoethane	ND	3.0	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	3.0	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	3.0	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	3.0	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	3.0	ug/kg	
75-34-3	1,1-Dichloroethane	ND	3.0	ug/kg	
107-06-2	1,2-Dichloroethane	ND	3.0	ug/kg	
75-35-4	1,1-Dichloroethene	ND	3.0	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	3.0	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	3.0	ug/kg	
78-87-5	1,2-Dichloropropane	ND	3.0	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-4C	Date Sampled:	08/24/16
Lab Sample ID:	MC47506-1	Date Received:	08/25/16
Matrix:	SO - Soil	Percent Solids:	95.2
Method:	SW846 8260C		
Project:	424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	7.6	ug/kg	
594-20-7	2,2-Dichloropropane	ND	7.6	ug/kg	
563-58-6	1,1-Dichloropropene	ND	7.6	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	3.0	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	3.0	ug/kg	
100-41-4	Ethylbenzene	ND	3.0	ug/kg	
76-13-1	Freon 113	ND	7.6	ug/kg	
87-68-3	Hexachlorobutadiene	ND	7.6	ug/kg	
591-78-6	2-Hexanone	ND	15	ug/kg	
98-82-8	Isopropylbenzene	ND	7.6	ug/kg	
99-87-6	p-Isopropyltoluene	ND	7.6	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	3.0	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	7.6	ug/kg	
74-95-3	Methylene bromide	ND	7.6	ug/kg	
75-09-2	Methylene chloride	ND	3.0	ug/kg	
91-20-3	Naphthalene	ND	7.6	ug/kg	
103-65-1	n-Propylbenzene	ND	7.6	ug/kg	
100-42-5	Styrene	ND	7.6	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	7.6	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	3.0	ug/kg	
127-18-4	Tetrachloroethene	ND	3.0	ug/kg	
109-99-9	Tetrahydrofuran	ND	15	ug/kg	
108-88-3	Toluene	ND	7.6	ug/kg	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	7.6	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	7.6	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	7.6	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	3.0	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	3.0	ug/kg	
79-01-6	Trichloroethene	ND	3.0	ug/kg	
75-69-4	Trichlorofluoromethane	ND	3.0	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	7.6	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	7.6	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	7.6	ug/kg	
75-01-4	Vinyl chloride	ND	3.0	ug/kg	
	m,p-Xylene	ND	3.0	ug/kg	
95-47-6	o-Xylene	ND	3.0	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	69%		65-141%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-4C		Date Sampled: 08/24/16
Lab Sample ID: MC47506-1		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 95.2
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	100%		65-129%
460-00-4	4-Bromofluorobenzene	104%		63-137%

(a) Initial Calibration Verification outside of acceptance criteria. Sample result may be biased high.

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.1
4

Report of Analysis

Client Sample ID: GP-4C		Date Sampled: 08/24/16
Lab Sample ID: MC47506-1		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 95.2
Method: SW846 8270D SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X12353.D	1	08/30/16	AA	08/28/16	OP48552	MSX413
Run #2 ^a	X12382.D	10	08/31/16	AA	08/28/16	OP48552	MSX414

Run #	Initial Weight	Final Volume
Run #1	20.5 g	1.0 ml
Run #2	20.5 g	1.0 ml

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
95-57-8	2-Chlorophenol	ND	260	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	510	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	510	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	510	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	510	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	510	ug/kg	
95-48-7	2-Methylphenol	ND	510	ug/kg	
106-44-5	4-Methylphenol	ND	510	ug/kg	
88-75-5	2-Nitrophenol	ND	510	ug/kg	
100-02-7	4-Nitrophenol	ND	510	ug/kg	
87-86-5	Pentachlorophenol	ND	510	ug/kg	
108-95-2	Phenol	ND	260	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	510	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	510	ug/kg	
83-32-9	Acenaphthene	ND	100	ug/kg	
208-96-8	Acenaphthylene	ND	100	ug/kg	
62-53-3	Aniline	ND	510	ug/kg	
120-12-7	Anthracene	ND	100	ug/kg	
56-55-3	Benzo(a)anthracene	ND	100	ug/kg	
50-32-8	Benzo(a)pyrene	ND	260	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	100	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	100	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	100	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	260	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	260	ug/kg	
91-58-7	2-Chloronaphthalene	ND	260	ug/kg	
106-47-8	4-Chloroaniline	ND	510	ug/kg	
86-74-8	Carbazole	ND	100	ug/kg	
218-01-9	Chrysene	ND	100	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	260	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	260	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	260	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-4C	Date Sampled:	08/24/16
Lab Sample ID:	MC47506-1	Date Received:	08/25/16
Matrix:	SO - Soil	Percent Solids:	95.2
Method:	SW846 8270D SW846 3546		
Project:	424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	260	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	510	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	510	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	510	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	100	ug/kg	
132-64-9	Dibenzofuran	ND	100	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	260	ug/kg	
117-84-0	Di-n-octyl phthalate ^b	ND	260	ug/kg	
84-66-2	Diethyl phthalate	ND	260	ug/kg	
131-11-3	Dimethyl phthalate	ND	260	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	260	ug/kg	
206-44-0	Fluoranthene	ND	100	ug/kg	
86-73-7	Fluorene	ND	100	ug/kg	
118-74-1	Hexachlorobenzene	ND	260	ug/kg	
87-68-3	Hexachlorobutadiene	ND	260	ug/kg	
77-47-4	Hexachlorocyclopentadiene ^b	ND	510	ug/kg	
67-72-1	Hexachloroethane	ND	260	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	260	ug/kg	
78-59-1	Isophorone	ND	260	ug/kg	
91-57-6	2-Methylnaphthalene	ND	100	ug/kg	
88-74-4	2-Nitroaniline	ND	510	ug/kg	
99-09-2	3-Nitroaniline	ND	510	ug/kg	
100-01-6	4-Nitroaniline	ND	510	ug/kg	
91-20-3	Naphthalene	ND	100	ug/kg	
98-95-3	Nitrobenzene	ND	260	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	260	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	260	ug/kg	
82-68-8	Pentachloronitrobenzene	ND	510	ug/kg	
85-01-8	Phenanthrene	ND	100	ug/kg	
129-00-0	Pyrene	ND	100	ug/kg	
110-86-1	Pyridine	ND	510	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	510	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	260	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	2% ^c	3% ^c	25-109%
4165-62-2	Phenol-d5	23% ^c	24% ^c	29-113%
118-79-6	2,4,6-Tribromophenol	5% ^c	0% ^c	20-141%
4165-60-0	Nitrobenzene-d5	74%	78%	27-115%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-4C		Date Sampled: 08/24/16
Lab Sample ID: MC47506-1		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 95.2
Method: SW846 8270D SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

ABN RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	78%	75%	34-118%
1718-51-0	Terphenyl-d14	81%	77%	42-139%

- (a) Confirmation run for surrogate recoveries.
- (b) Continuing Calibration outside of acceptance criteria. Reporting Limit Response verified by low-level standard.
- (c) Outside control limits due to possible matrix interference. Confirmed by reanalysis.

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.1
4

Report of Analysis

Client Sample ID: GP-4C	Date Sampled: 08/24/16
Lab Sample ID: MC47506-1	Date Received: 08/25/16
Matrix: SO - Soil	Percent Solids: 95.2
Method: CT-ETPH 7/06 SW846 3546	
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IR2595.D	1	08/30/16	MD	08/28/16	OP48556	GIR178
Run #2							

	Initial Weight	Final Volume
Run #1	15.4 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-ETPH (C9-C36)	361	17	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	78%		50-137%	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.1
4

Report of Analysis

Client Sample ID: GP-4C		Date Sampled: 08/24/16
Lab Sample ID: MC47506-1		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 95.2
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analized By	Method	Prep Method
Arsenic	2.4	0.84	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Barium	47.7	4.2	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Cadmium	< 0.34	0.34	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Chromium	18.4	0.84	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Lead	3.6	0.84	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Mercury	< 0.034	0.034	mg/kg	1	08/31/16	08/31/16 EAL	SW846 7471B ²	SW846 7471B ⁴
Selenium	< 0.84	0.84	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Silver	< 0.42	0.42	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³

- (1) Instrument QC Batch: MA19418
- (2) Instrument QC Batch: MA19431
- (3) Prep QC Batch: MP26696
- (4) Prep QC Batch: MP26718

RL = Reporting Limit

4.1
4

Report of Analysis

Client Sample ID: GP-4C		Date Sampled: 08/24/16
Lab Sample ID: MC47506-1A		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 95.2
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Metals Analysis, SPLP Leachate SW846 1312

Analyte	Result	MCL	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 0.010	0.010		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Barium	< 0.50	0.50		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Cadmium	< 0.0040	0.0040		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Chromium	0.021	0.010		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Lead	< 0.010	0.010		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Mercury	< 0.00020	0.00020		mg/l	1	08/30/16	08/31/16 EAL	SW846 7470A ²	SW846 7470A ⁴
Selenium	< 0.025	0.025		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Silver	< 0.0050	0.0050		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³

- (1) Instrument QC Batch: MA19425
- (2) Instrument QC Batch: MA19426
- (3) Prep QC Batch: MP26708
- (4) Prep QC Batch: MP26713

RL = Reporting Limit
MCL = Maximum Contamination Level (not available)

4.2
4

Report of Analysis

Client Sample ID:	GP-14C	Date Sampled:	08/24/16
Lab Sample ID:	MC47506-2	Date Received:	08/25/16
Matrix:	SO - Soil	Percent Solids:	93.8
Method:	SW846 8260C		
Project:	424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M80590.D	1	08/29/16	KP	n/a	n/a	MSM2884
Run #2 ^a	M80612.D	1	08/30/16	KP	n/a	n/a	MSM2885

Run #	Initial Weight	Final Volume
Run #1	4.51 g	5.0 ml
Run #2	4.83 g	5.0 ml

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone ^b	53.0	12	ug/kg	
107-13-1	Acrylonitrile	ND	30	ug/kg	
71-43-2	Benzene	ND	0.59	ug/kg	
108-86-1	Bromobenzene	ND	5.9	ug/kg	
75-27-4	Bromodichloromethane	ND	2.4	ug/kg	
75-25-2	Bromoform	ND	2.4	ug/kg	
74-83-9	Bromomethane	ND	2.4	ug/kg	
78-93-3	2-Butanone (MEK)	ND	24	ug/kg	
104-51-8	n-Butylbenzene	ND	5.9	ug/kg	
135-98-8	sec-Butylbenzene	ND	5.9	ug/kg	
98-06-6	tert-Butylbenzene	ND	5.9	ug/kg	
75-15-0	Carbon disulfide	ND	5.9	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.4	ug/kg	
108-90-7	Chlorobenzene	ND	2.4	ug/kg	
75-00-3	Chloroethane	ND	5.9	ug/kg	
67-66-3	Chloroform	ND	2.4	ug/kg	
74-87-3	Chloromethane	ND	5.9	ug/kg	
95-49-8	o-Chlorotoluene	ND	5.9	ug/kg	
106-43-4	p-Chlorotoluene	ND	5.9	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.9	ug/kg	
124-48-1	Dibromochloromethane	ND	2.4	ug/kg	
106-93-4	1,2-Dibromoethane	ND	2.4	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	2.4	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	2.4	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	2.4	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	2.4	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.4	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.4	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.4	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.4	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.4	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.4	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-14C		Date Sampled: 08/24/16
Lab Sample ID: MC47506-2		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 93.8
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.9	ug/kg	
594-20-7	2,2-Dichloropropane	ND	5.9	ug/kg	
563-58-6	1,1-Dichloropropene	ND	5.9	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.4	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.4	ug/kg	
100-41-4	Ethylbenzene	ND	2.4	ug/kg	
76-13-1	Freon 113	ND	5.9	ug/kg	
87-68-3	Hexachlorobutadiene	ND	5.9	ug/kg	
591-78-6	2-Hexanone	13.2	12	ug/kg	
98-82-8	Isopropylbenzene	ND	5.9	ug/kg	
99-87-6	p-Isopropyltoluene	ND	5.9	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.4	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.9	ug/kg	
74-95-3	Methylene bromide	ND	5.9	ug/kg	
75-09-2	Methylene chloride	ND	2.4	ug/kg	
91-20-3	Naphthalene	ND	5.9	ug/kg	
103-65-1	n-Propylbenzene	ND	5.9	ug/kg	
100-42-5	Styrene	ND	5.9	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.9	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.4	ug/kg	
127-18-4	Tetrachloroethene	ND	2.4	ug/kg	
109-99-9	Tetrahydrofuran	ND	12	ug/kg	
108-88-3	Toluene	ND	5.9	ug/kg	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.9	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.9	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.9	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.4	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.4	ug/kg	
79-01-6	Trichloroethene	ND	2.4	ug/kg	
75-69-4	Trichlorofluoromethane	ND	2.4	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	5.9	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	5.9	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	5.9	ug/kg	
75-01-4	Vinyl chloride	ND	2.4	ug/kg	
	m,p-Xylene	3.8	2.4	ug/kg	
95-47-6	o-Xylene	ND	2.4	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	52% ^c	60% ^c	65-141%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-14C		Date Sampled: 08/24/16
Lab Sample ID: MC47506-2		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 93.8
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	99%	105%	65-129%
460-00-4	4-Bromofluorobenzene	104%	105%	63-137%

- (a) Confirmation run for surrogate recoveries.
- (b) Initial Calibration Verification outside of acceptance criteria. Sample result may be biased high.
- (c) Outside control limits due to possible matrix interference. Confirmed by reanalysis.

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-14C		Date Sampled: 08/24/16
Lab Sample ID: MC47506-2		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 93.8
Method: SW846 8270D SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X12354.D	1	08/30/16	AA	08/28/16	OP48552	MSX413
Run #2 ^a	X12383.D	10	08/31/16	AA	08/28/16	OP48552	MSX414

Run #	Initial Weight	Final Volume
Run #1	20.2 g	1.0 ml
Run #2	20.2 g	1.0 ml

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
95-57-8	2-Chlorophenol	ND	260	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	530	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	530	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	530	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	530	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	530	ug/kg	
95-48-7	2-Methylphenol	ND	530	ug/kg	
106-44-5	4-Methylphenol	ND	530	ug/kg	
88-75-5	2-Nitrophenol	ND	530	ug/kg	
100-02-7	4-Nitrophenol	ND	530	ug/kg	
87-86-5	Pentachlorophenol	ND	530	ug/kg	
108-95-2	Phenol	ND	260	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	530	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	530	ug/kg	
83-32-9	Acenaphthene	ND	110	ug/kg	
208-96-8	Acenaphthylene	ND	110	ug/kg	
62-53-3	Aniline	ND	530	ug/kg	
120-12-7	Anthracene	ND	110	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	ug/kg	
50-32-8	Benzo(a)pyrene	ND	260	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	260	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	260	ug/kg	
91-58-7	2-Chloronaphthalene	ND	260	ug/kg	
106-47-8	4-Chloroaniline	ND	530	ug/kg	
86-74-8	Carbazole	ND	110	ug/kg	
218-01-9	Chrysene	ND	110	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	260	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	260	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	260	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-14C	Date Sampled:	08/24/16
Lab Sample ID:	MC47506-2	Date Received:	08/25/16
Matrix:	SO - Soil	Percent Solids:	93.8
Method:	SW846 8270D SW846 3546		
Project:	424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	260	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	530	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	530	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	530	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	ug/kg	
132-64-9	Dibenzofuran	ND	110	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	260	ug/kg	
117-84-0	Di-n-octyl phthalate ^b	ND	260	ug/kg	
84-66-2	Diethyl phthalate	ND	260	ug/kg	
131-11-3	Dimethyl phthalate	ND	260	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	260	ug/kg	
206-44-0	Fluoranthene	ND	110	ug/kg	
86-73-7	Fluorene	ND	110	ug/kg	
118-74-1	Hexachlorobenzene	ND	260	ug/kg	
87-68-3	Hexachlorobutadiene	ND	260	ug/kg	
77-47-4	Hexachlorocyclopentadiene ^b	ND	530	ug/kg	
67-72-1	Hexachloroethane	ND	260	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	260	ug/kg	
78-59-1	Isophorone	ND	260	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	ug/kg	
88-74-4	2-Nitroaniline	ND	530	ug/kg	
99-09-2	3-Nitroaniline	ND	530	ug/kg	
100-01-6	4-Nitroaniline	ND	530	ug/kg	
91-20-3	Naphthalene	ND	110	ug/kg	
98-95-3	Nitrobenzene	ND	260	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	260	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	260	ug/kg	
82-68-8	Pentachloronitrobenzene	ND	530	ug/kg	
85-01-8	Phenanthrene	ND	110	ug/kg	
129-00-0	Pyrene	ND	110	ug/kg	
110-86-1	Pyridine	ND	530	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	530	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	260	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	2% ^c	2% ^c	25-109%
4165-62-2	Phenol-d5	23% ^c	22% ^c	29-113%
118-79-6	2,4,6-Tribromophenol	7% ^c	0% ^c	20-141%
4165-60-0	Nitrobenzene-d5	81%	83%	27-115%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-14C		Date Sampled: 08/24/16
Lab Sample ID: MC47506-2		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 93.8
Method: SW846 8270D SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

ABN RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	84%	79%	34-118%
1718-51-0	Terphenyl-d14	79%	78%	42-139%

- (a) Confirmation run for surrogate recoveries.
- (b) Continuing Calibration outside of acceptance criteria. Reporting Limit Response verified by low-level standard.
- (c) Outside control limits due to possible matrix interference. Confirmed by reanalysis.

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.3
4

Report of Analysis

Client Sample ID: GP-14C		Date Sampled: 08/24/16
Lab Sample ID: MC47506-2		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 93.8
Method: SW846 8082A SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK61324.D	1	08/31/16	NK	08/28/16	OP48554	GBK1921
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	15.0 g	10.0 ml
Run #2		

CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	35	ug/kg	
11104-28-2	Aroclor 1221	ND	35	ug/kg	
11141-16-5	Aroclor 1232	ND	35	ug/kg	
53469-21-9	Aroclor 1242	ND	35	ug/kg	
12672-29-6	Aroclor 1248	ND	35	ug/kg	
11097-69-1	Aroclor 1254	75.7	35	ug/kg	
11096-82-5	Aroclor 1260	ND	35	ug/kg	
37324-23-5	Aroclor 1262	ND	35	ug/kg	
11100-14-4	Aroclor 1268	ND	35	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	85%		25-145%
877-09-8	Tetrachloro-m-xylene	84%		25-145%
2051-24-3	Decachlorobiphenyl	97%		25-179%
2051-24-3	Decachlorobiphenyl	85%		25-179%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.3
4

Report of Analysis

Client Sample ID: GP-14C	Date Sampled: 08/24/16
Lab Sample ID: MC47506-2	Date Received: 08/25/16
Matrix: SO - Soil	Percent Solids: 93.8
Method: CT-ETPH 7/06 SW846 3546	
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IR2596.D	1	08/30/16	MD	08/28/16	OP48556	GIR178
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.8 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-ETPH (C9-C36)	130	17	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	77%		50-137%	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.3
4

Report of Analysis

Client Sample ID: GP-14C		Date Sampled: 08/24/16
Lab Sample ID: MC47506-2		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 93.8
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	4.6	0.87	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Barium	46.7	4.3	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Cadmium	< 0.35	0.35	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Chromium	13.7	0.87	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Lead	2.3	0.87	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Mercury	< 0.033	0.033	mg/kg	1	08/31/16	08/31/16 EAL	SW846 7471B ²	SW846 7471B ⁴
Selenium	< 0.87	0.87	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Silver	< 0.43	0.43	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³

- (1) Instrument QC Batch: MA19418
- (2) Instrument QC Batch: MA19431
- (3) Prep QC Batch: MP26696
- (4) Prep QC Batch: MP26718

RL = Reporting Limit

4.3
4

Report of Analysis

Client Sample ID: GP-14C		Date Sampled: 08/24/16
Lab Sample ID: MC47506-2A		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 93.8
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Metals Analysis, SPLP Leachate SW846 1312

Analyte	Result	MCL	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 0.010	0.010		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Barium	< 0.50	0.50		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Cadmium	< 0.0040	0.0040		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Chromium	0.020	0.010		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Lead	< 0.010	0.010		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Mercury	< 0.00020	0.00020		mg/l	1	08/30/16	08/31/16 EAL	SW846 7470A ²	SW846 7470A ⁴
Selenium	< 0.025	0.025		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Silver	< 0.0050	0.0050		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³

- (1) Instrument QC Batch: MA19425
- (2) Instrument QC Batch: MA19426
- (3) Prep QC Batch: MP26708
- (4) Prep QC Batch: MP26713

RL = Reporting Limit
MCL = Maximum Contamination Level (not available)

4.4
4

Report of Analysis

Client Sample ID: GP-9C		Date Sampled: 08/24/16
Lab Sample ID: MC47506-3		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 80.9
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M80591.D	1	08/29/16	KP	n/a	n/a	MSM2884
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	4.84 g	5.0 ml
Run #2		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone ^a	22.2	13	ug/kg	
107-13-1	Acrylonitrile	ND	32	ug/kg	
71-43-2	Benzene	0.71	0.64	ug/kg	
108-86-1	Bromobenzene	ND	6.4	ug/kg	
75-27-4	Bromodichloromethane	ND	2.6	ug/kg	
75-25-2	Bromoform	ND	2.6	ug/kg	
74-83-9	Bromomethane	ND	2.6	ug/kg	
78-93-3	2-Butanone (MEK)	ND	26	ug/kg	
104-51-8	n-Butylbenzene	ND	6.4	ug/kg	
135-98-8	sec-Butylbenzene	ND	6.4	ug/kg	
98-06-6	tert-Butylbenzene	ND	6.4	ug/kg	
75-15-0	Carbon disulfide	ND	6.4	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.6	ug/kg	
108-90-7	Chlorobenzene	ND	2.6	ug/kg	
75-00-3	Chloroethane	ND	6.4	ug/kg	
67-66-3	Chloroform	ND	2.6	ug/kg	
74-87-3	Chloromethane	ND	6.4	ug/kg	
95-49-8	o-Chlorotoluene	ND	6.4	ug/kg	
106-43-4	p-Chlorotoluene	ND	6.4	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	6.4	ug/kg	
124-48-1	Dibromochloromethane	ND	2.6	ug/kg	
106-93-4	1,2-Dibromoethane	ND	2.6	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	2.6	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	2.6	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	2.6	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	2.6	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.6	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.6	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.6	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.6	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.6	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.6	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-9C	Date Sampled:	08/24/16
Lab Sample ID:	MC47506-3	Date Received:	08/25/16
Matrix:	SO - Soil	Percent Solids:	80.9
Method:	SW846 8260C		
Project:	424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	6.4	ug/kg	
594-20-7	2,2-Dichloropropane	ND	6.4	ug/kg	
563-58-6	1,1-Dichloropropene	ND	6.4	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.6	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.6	ug/kg	
100-41-4	Ethylbenzene	ND	2.6	ug/kg	
76-13-1	Freon 113	ND	6.4	ug/kg	
87-68-3	Hexachlorobutadiene	ND	6.4	ug/kg	
591-78-6	2-Hexanone	ND	13	ug/kg	
98-82-8	Isopropylbenzene	ND	6.4	ug/kg	
99-87-6	p-Isopropyltoluene	ND	6.4	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.6	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	6.4	ug/kg	
74-95-3	Methylene bromide	ND	6.4	ug/kg	
75-09-2	Methylene chloride	ND	2.6	ug/kg	
91-20-3	Naphthalene	ND	6.4	ug/kg	
103-65-1	n-Propylbenzene	ND	6.4	ug/kg	
100-42-5	Styrene	ND	6.4	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	6.4	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.6	ug/kg	
127-18-4	Tetrachloroethene	ND	2.6	ug/kg	
109-99-9	Tetrahydrofuran	ND	13	ug/kg	
108-88-3	Toluene	ND	6.4	ug/kg	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	6.4	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	6.4	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	6.4	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.6	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.6	ug/kg	
79-01-6	Trichloroethene	ND	2.6	ug/kg	
75-69-4	Trichlorofluoromethane	ND	2.6	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	6.4	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	6.4	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	6.4	ug/kg	
75-01-4	Vinyl chloride	ND	2.6	ug/kg	
	m,p-Xylene	ND	2.6	ug/kg	
95-47-6	o-Xylene	ND	2.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	73%		65-141%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-9C		Date Sampled: 08/24/16
Lab Sample ID: MC47506-3		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 80.9
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

4.5
4

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	100%		65-129%
460-00-4	4-Bromofluorobenzene	101%		63-137%

(a) Initial Calibration Verification outside of acceptance criteria. Sample result may be biased high.

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-9C		
Lab Sample ID: MC47506-3		Date Sampled: 08/24/16
Matrix: SO - Soil		Date Received: 08/25/16
Method: SW846 8270D SW846 3546		Percent Solids: 80.9
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X12355.D	1	08/30/16	AA	08/28/16	OP48552	MSX413
Run #2 ^a	X12384.D	10	08/31/16	AA	08/28/16	OP48552	MSX414

Run #	Initial Weight	Final Volume
Run #1	20.0 g	1.0 ml
Run #2	20.0 g	1.0 ml

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
95-57-8	2-Chlorophenol	ND	310	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	620	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	620	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	620	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	620	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	620	ug/kg	
95-48-7	2-Methylphenol	ND	620	ug/kg	
106-44-5	4-Methylphenol	ND	620	ug/kg	
88-75-5	2-Nitrophenol	ND	620	ug/kg	
100-02-7	4-Nitrophenol	ND	620	ug/kg	
87-86-5	Pentachlorophenol	ND	620	ug/kg	
108-95-2	Phenol	ND	310	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	620	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	620	ug/kg	
83-32-9	Acenaphthene	ND	120	ug/kg	
208-96-8	Acenaphthylene	ND	120	ug/kg	
62-53-3	Aniline	ND	620	ug/kg	
120-12-7	Anthracene	ND	120	ug/kg	
56-55-3	Benzo(a)anthracene	ND	120	ug/kg	
50-32-8	Benzo(a)pyrene	ND	310	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	120	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	120	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	120	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	310	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	310	ug/kg	
91-58-7	2-Chloronaphthalene	ND	310	ug/kg	
106-47-8	4-Chloroaniline	ND	620	ug/kg	
86-74-8	Carbazole	ND	120	ug/kg	
218-01-9	Chrysene	ND	120	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	310	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	310	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	310	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-9C		Date Sampled: 08/24/16
Lab Sample ID: MC47506-3		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 80.9
Method: SW846 8270D SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	310	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	620	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	620	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	620	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	120	ug/kg	
132-64-9	Dibenzofuran	ND	120	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	310	ug/kg	
117-84-0	Di-n-octyl phthalate ^b	ND	310	ug/kg	
84-66-2	Diethyl phthalate	ND	310	ug/kg	
131-11-3	Dimethyl phthalate	ND	310	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	310	ug/kg	
206-44-0	Fluoranthene	ND	120	ug/kg	
86-73-7	Fluorene	ND	120	ug/kg	
118-74-1	Hexachlorobenzene	ND	310	ug/kg	
87-68-3	Hexachlorobutadiene	ND	310	ug/kg	
77-47-4	Hexachlorocyclopentadiene ^b	ND	620	ug/kg	
67-72-1	Hexachloroethane	ND	310	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	310	ug/kg	
78-59-1	Isophorone	ND	310	ug/kg	
91-57-6	2-Methylnaphthalene	ND	120	ug/kg	
88-74-4	2-Nitroaniline	ND	620	ug/kg	
99-09-2	3-Nitroaniline	ND	620	ug/kg	
100-01-6	4-Nitroaniline	ND	620	ug/kg	
91-20-3	Naphthalene	ND	120	ug/kg	
98-95-3	Nitrobenzene	ND	310	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	310	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	310	ug/kg	
82-68-8	Pentachloronitrobenzene	ND	620	ug/kg	
85-01-8	Phenanthrene	ND	120	ug/kg	
129-00-0	Pyrene	ND	120	ug/kg	
110-86-1	Pyridine	ND	620	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	620	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	310	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	0% ^c	0% ^c	25-109%
4165-62-2	Phenol-d5	25% ^c	27% ^c	29-113%
118-79-6	2,4,6-Tribromophenol	9% ^c	0% ^c	20-141%
4165-60-0	Nitrobenzene-d5	87%	87%	27-115%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-9C		Date Sampled: 08/24/16
Lab Sample ID: MC47506-3		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 80.9
Method: SW846 8270D SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

4.5
4

ABN RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	88%	84%	34-118%
1718-51-0	Terphenyl-d14	85%	81%	42-139%

- (a) Confirmation run for surrogate recoveries.
- (b) Continuing Calibration outside of acceptance criteria. Reporting Limit Response verified by low-level standard.
- (c) Outside control limits due to possible matrix interference. Confirmed by reanalysis.

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-9C	Date Sampled: 08/24/16
Lab Sample ID: MC47506-3	Date Received: 08/25/16
Matrix: SO - Soil	Percent Solids: 80.9
Method: CT-ETPH 7/06 SW846 3546	
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IR2597.D	1	08/30/16	MD	08/28/16	OP48556	GIR178
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-ETPH (C9-C36)	130	21	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	84%		50-137%	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.5
4

Report of Analysis

Client Sample ID: GP-9C		Date Sampled: 08/24/16
Lab Sample ID: MC47506-3		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 80.9
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analized By	Method	Prep Method
Arsenic	2.8	0.90	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Barium	48.2	4.5	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Cadmium	< 0.36	0.36	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Chromium	26.1	0.90	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Lead	2.1	0.90	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Mercury	< 0.040	0.040	mg/kg	1	08/31/16	08/31/16 EAL	SW846 7471B ²	SW846 7471B ⁴
Selenium	< 0.90	0.90	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Silver	< 0.45	0.45	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³

- (1) Instrument QC Batch: MA19418
- (2) Instrument QC Batch: MA19431
- (3) Prep QC Batch: MP26696
- (4) Prep QC Batch: MP26718

RL = Reporting Limit

4.5
4

Report of Analysis

Client Sample ID: GP-9C Lab Sample ID: MC47506-3A Matrix: SO - Soil Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT	Date Sampled: 08/24/16 Date Received: 08/25/16 Percent Solids: 80.9
---	--

Metals Analysis, SPLP Leachate SW846 1312

Analyte	Result	MCL	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 0.010	0.010		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Barium	< 0.50	0.50		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Cadmium	< 0.0040	0.0040		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Chromium	0.018	0.010		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Lead	< 0.010	0.010		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Mercury	< 0.00020	0.00020		mg/l	1	08/30/16	08/31/16 EAL	SW846 7470A ²	SW846 7470A ⁴
Selenium	< 0.025	0.025		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Silver	< 0.0050	0.0050		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³

- (1) Instrument QC Batch: MA19425
- (2) Instrument QC Batch: MA19426
- (3) Prep QC Batch: MP26708
- (4) Prep QC Batch: MP26713

RL = Reporting Limit
 MCL = Maximum Contamination Level (not available)

4.6
4

Report of Analysis

Client Sample ID: GP-15C		
Lab Sample ID: MC47506-4		Date Sampled: 08/24/16
Matrix: SO - Soil		Date Received: 08/25/16
Method: SW846 8260C		Percent Solids: 94.2
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M80592.D	1	08/29/16	KP	n/a	n/a	MSM2884
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	3.74 g	5.0 ml
Run #2		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone ^a	75.9	14	ug/kg	
107-13-1	Acrylonitrile	ND	35	ug/kg	
71-43-2	Benzene	ND	0.71	ug/kg	
108-86-1	Bromobenzene	ND	7.1	ug/kg	
75-27-4	Bromodichloromethane	ND	2.8	ug/kg	
75-25-2	Bromoform	ND	2.8	ug/kg	
74-83-9	Bromomethane	ND	2.8	ug/kg	
78-93-3	2-Butanone (MEK)	ND	30	ug/kg	
104-51-8	n-Butylbenzene	ND	7.1	ug/kg	
135-98-8	sec-Butylbenzene	ND	7.1	ug/kg	
98-06-6	tert-Butylbenzene	ND	7.1	ug/kg	
75-15-0	Carbon disulfide	ND	7.1	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.8	ug/kg	
108-90-7	Chlorobenzene	ND	2.8	ug/kg	
75-00-3	Chloroethane	ND	7.1	ug/kg	
67-66-3	Chloroform	ND	2.8	ug/kg	
74-87-3	Chloromethane	ND	7.1	ug/kg	
95-49-8	o-Chlorotoluene	ND	7.1	ug/kg	
106-43-4	p-Chlorotoluene	ND	7.1	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	7.1	ug/kg	
124-48-1	Dibromochloromethane	ND	2.8	ug/kg	
106-93-4	1,2-Dibromoethane	ND	2.8	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	2.8	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	2.8	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	2.8	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	2.8	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.8	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.8	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.8	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.8	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.8	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.8	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-15C	Date Sampled:	08/24/16
Lab Sample ID:	MC47506-4	Date Received:	08/25/16
Matrix:	SO - Soil	Percent Solids:	94.2
Method:	SW846 8260C		
Project:	424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	7.1	ug/kg	
594-20-7	2,2-Dichloropropane	ND	7.1	ug/kg	
563-58-6	1,1-Dichloropropene	ND	7.1	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.8	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.8	ug/kg	
100-41-4	Ethylbenzene	ND	2.8	ug/kg	
76-13-1	Freon 113	ND	7.1	ug/kg	
87-68-3	Hexachlorobutadiene	ND	7.1	ug/kg	
591-78-6	2-Hexanone	ND	14	ug/kg	
98-82-8	Isopropylbenzene	ND	7.1	ug/kg	
99-87-6	p-Isopropyltoluene	ND	7.1	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.8	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	7.1	ug/kg	
74-95-3	Methylene bromide	ND	7.1	ug/kg	
75-09-2	Methylene chloride	ND	2.8	ug/kg	
91-20-3	Naphthalene	ND	7.1	ug/kg	
103-65-1	n-Propylbenzene	ND	7.1	ug/kg	
100-42-5	Styrene	ND	7.1	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	7.1	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.8	ug/kg	
127-18-4	Tetrachloroethene	ND	2.8	ug/kg	
109-99-9	Tetrahydrofuran	ND	14	ug/kg	
108-88-3	Toluene	ND	7.1	ug/kg	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	7.1	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	7.1	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	7.1	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.8	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.8	ug/kg	
79-01-6	Trichloroethene	ND	2.8	ug/kg	
75-69-4	Trichlorofluoromethane	ND	2.8	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	7.1	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	7.1	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	7.1	ug/kg	
75-01-4	Vinyl chloride	ND	2.8	ug/kg	
	m,p-Xylene	ND	2.8	ug/kg	
95-47-6	o-Xylene	ND	2.8	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		65-141%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-15C		Date Sampled: 08/24/16
Lab Sample ID: MC47506-4		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 94.2
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	100%		65-129%
460-00-4	4-Bromofluorobenzene	103%		63-137%

(a) Initial Calibration Verification outside of acceptance criteria. Sample result may be biased high.

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.7
4

Report of Analysis

Client Sample ID: GP-15C		
Lab Sample ID: MC47506-4		Date Sampled: 08/24/16
Matrix: SO - Soil		Date Received: 08/25/16
Method: SW846 8270D SW846 3546		Percent Solids: 94.2
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X12356.D	1	08/30/16	AA	08/28/16	OP48552	MSX413
Run #2 ^a	X12385.D	10	08/31/16	AA	08/28/16	OP48552	MSX414

Run #	Initial Weight	Final Volume
Run #1	20.7 g	1.0 ml
Run #2	20.7 g	1.0 ml

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
95-57-8	2-Chlorophenol	ND	260	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	510	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	510	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	510	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	510	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	510	ug/kg	
95-48-7	2-Methylphenol	ND	510	ug/kg	
106-44-5	4-Methylphenol	ND	510	ug/kg	
88-75-5	2-Nitrophenol	ND	510	ug/kg	
100-02-7	4-Nitrophenol	ND	510	ug/kg	
87-86-5	Pentachlorophenol	ND	510	ug/kg	
108-95-2	Phenol	ND	260	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	510	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	510	ug/kg	
83-32-9	Acenaphthene	ND	100	ug/kg	
208-96-8	Acenaphthylene	ND	100	ug/kg	
62-53-3	Aniline	ND	510	ug/kg	
120-12-7	Anthracene	ND	100	ug/kg	
56-55-3	Benzo(a)anthracene	ND	100	ug/kg	
50-32-8	Benzo(a)pyrene	ND	260	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	100	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	100	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	100	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	260	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	260	ug/kg	
91-58-7	2-Chloronaphthalene	ND	260	ug/kg	
106-47-8	4-Chloroaniline	ND	510	ug/kg	
86-74-8	Carbazole	ND	100	ug/kg	
218-01-9	Chrysene	ND	100	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	260	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	260	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	260	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-15C	Date Sampled:	08/24/16
Lab Sample ID:	MC47506-4	Date Received:	08/25/16
Matrix:	SO - Soil	Percent Solids:	94.2
Method:	SW846 8270D SW846 3546		
Project:	424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	260	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	510	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	510	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	510	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	100	ug/kg	
132-64-9	Dibenzofuran	ND	100	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	260	ug/kg	
117-84-0	Di-n-octyl phthalate ^b	ND	260	ug/kg	
84-66-2	Diethyl phthalate	ND	260	ug/kg	
131-11-3	Dimethyl phthalate	ND	260	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	347	260	ug/kg	
206-44-0	Fluoranthene	ND	100	ug/kg	
86-73-7	Fluorene	ND	100	ug/kg	
118-74-1	Hexachlorobenzene	ND	260	ug/kg	
87-68-3	Hexachlorobutadiene	ND	260	ug/kg	
77-47-4	Hexachlorocyclopentadiene ^b	ND	510	ug/kg	
67-72-1	Hexachloroethane	ND	260	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	260	ug/kg	
78-59-1	Isophorone	ND	260	ug/kg	
91-57-6	2-Methylnaphthalene	ND	100	ug/kg	
88-74-4	2-Nitroaniline	ND	510	ug/kg	
99-09-2	3-Nitroaniline	ND	510	ug/kg	
100-01-6	4-Nitroaniline	ND	510	ug/kg	
91-20-3	Naphthalene	ND	100	ug/kg	
98-95-3	Nitrobenzene	ND	260	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	260	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	260	ug/kg	
82-68-8	Pentachloronitrobenzene	ND	510	ug/kg	
85-01-8	Phenanthrene	ND	100	ug/kg	
129-00-0	Pyrene	ND	100	ug/kg	
110-86-1	Pyridine	ND	510	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	510	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	260	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	2% ^c	0% ^c	25-109%
4165-62-2	Phenol-d5	28% ^c	28% ^c	29-113%
118-79-6	2,4,6-Tribromophenol	4% ^c	0% ^c	20-141%
4165-60-0	Nitrobenzene-d5	93%	84%	27-115%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-15C		Date Sampled: 08/24/16
Lab Sample ID: MC47506-4		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 94.2
Method: SW846 8270D SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

ABN RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	89%	78%	34-118%
1718-51-0	Terphenyl-d14	86%	76%	42-139%

- (a) Confirmation run for surrogate recoveries.
- (b) Continuing Calibration outside of acceptance criteria. Reporting Limit Response verified by low-level standard.
- (c) Outside control limits due to possible matrix interference. Confirmed by reanalysis.

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.7
4

Report of Analysis

Client Sample ID:	GP-15C	Date Sampled:	08/24/16
Lab Sample ID:	MC47506-4	Date Received:	08/25/16
Matrix:	SO - Soil	Percent Solids:	94.2
Method:	SW846 8082A SW846 3546		
Project:	424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK61325.D	1	08/31/16	NK	08/28/16	OP48554	GBK1921
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	15.6 g	10.0 ml
Run #2		

CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	34	ug/kg	
11104-28-2	Aroclor 1221	ND	34	ug/kg	
11141-16-5	Aroclor 1232	ND	34	ug/kg	
53469-21-9	Aroclor 1242	ND	34	ug/kg	
12672-29-6	Aroclor 1248	ND	34	ug/kg	
11097-69-1	Aroclor 1254	ND	34	ug/kg	
11096-82-5	Aroclor 1260	ND	34	ug/kg	
37324-23-5	Aroclor 1262	ND	34	ug/kg	
11100-14-4	Aroclor 1268	ND	34	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	81%		25-145%
877-09-8	Tetrachloro-m-xylene	84%		25-145%
2051-24-3	Decachlorobiphenyl	83%		25-179%
2051-24-3	Decachlorobiphenyl	74%		25-179%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.7
4

Report of Analysis

Client Sample ID: GP-15C		Date Sampled: 08/24/16
Lab Sample ID: MC47506-4		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 94.2
Method: CT-ETPH 7/06 SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IR2598.D	1	08/30/16	MD	08/28/16	OP48556	GIR178
Run #2							

	Initial Weight	Final Volume
Run #1	15.2 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-ETPH (C9-C36)	135	18	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	82%		50-137%	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.7
4

Report of Analysis

Client Sample ID: GP-15C	Date Sampled: 08/24/16
Lab Sample ID: MC47506-4	Date Received: 08/25/16
Matrix: SO - Soil	Percent Solids: 94.2
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT	

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	2.6	0.84	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Barium	44.4	4.2	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Cadmium	< 0.34	0.34	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Chromium	16.3	0.84	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Lead	2.0	0.84	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Mercury	< 0.033	0.033	mg/kg	1	08/31/16	08/31/16 EAL	SW846 7471B ²	SW846 7471B ⁴
Selenium	< 0.84	0.84	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Silver	1.4	0.42	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³

- (1) Instrument QC Batch: MA19418
- (2) Instrument QC Batch: MA19431
- (3) Prep QC Batch: MP26696
- (4) Prep QC Batch: MP26718

RL = Reporting Limit

4.7
4

Report of Analysis

Client Sample ID: GP-15C Lab Sample ID: MC47506-4A Matrix: SO - Soil Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT	Date Sampled: 08/24/16 Date Received: 08/25/16 Percent Solids: 94.2
--	--

Metals Analysis, SPLP Leachate SW846 1312

Analyte	Result	MCL	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 0.010	0.010		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Barium	< 0.50	0.50		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Cadmium	< 0.0040	0.0040		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Chromium	0.022	0.010		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Lead	< 0.010	0.010		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Mercury	< 0.00020	0.00020		mg/l	1	08/30/16	08/31/16 EAL	SW846 7470A ²	SW846 7470A ⁴
Selenium	< 0.025	0.025		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Silver	< 0.0050	0.0050		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³

- (1) Instrument QC Batch: MA19425
- (2) Instrument QC Batch: MA19426
- (3) Prep QC Batch: MP26708
- (4) Prep QC Batch: MP26713

RL = Reporting Limit
 MCL = Maximum Contamination Level (not available)

4.8
4

Report of Analysis

Client Sample ID: GP-12C		Date Sampled: 08/24/16
Lab Sample ID: MC47506-5		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 93.3
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M80593.D	1	08/29/16	KP	n/a	n/a	MSM2884
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	4.33 g	5.0 ml
Run #2		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone ^a	66.6	12	ug/kg	
107-13-1	Acrylonitrile	ND	31	ug/kg	
71-43-2	Benzene	ND	0.62	ug/kg	
108-86-1	Bromobenzene	ND	6.2	ug/kg	
75-27-4	Bromodichloromethane	ND	2.5	ug/kg	
75-25-2	Bromoform	ND	2.5	ug/kg	
74-83-9	Bromomethane	ND	2.5	ug/kg	
78-93-3	2-Butanone (MEK)	ND	25	ug/kg	
104-51-8	n-Butylbenzene	ND	6.2	ug/kg	
135-98-8	sec-Butylbenzene	ND	6.2	ug/kg	
98-06-6	tert-Butylbenzene	ND	6.2	ug/kg	
75-15-0	Carbon disulfide	ND	6.2	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.5	ug/kg	
108-90-7	Chlorobenzene	ND	2.5	ug/kg	
75-00-3	Chloroethane	ND	6.2	ug/kg	
67-66-3	Chloroform	ND	2.5	ug/kg	
74-87-3	Chloromethane	ND	6.2	ug/kg	
95-49-8	o-Chlorotoluene	ND	6.2	ug/kg	
106-43-4	p-Chlorotoluene	ND	6.2	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	6.2	ug/kg	
124-48-1	Dibromochloromethane	ND	2.5	ug/kg	
106-93-4	1,2-Dibromoethane	ND	2.5	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	2.5	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	2.5	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	2.5	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	2.5	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.5	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.5	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.5	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.5	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.5	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.5	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-12C		Date Sampled: 08/24/16
Lab Sample ID: MC47506-5		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 93.3
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	6.2	ug/kg	
594-20-7	2,2-Dichloropropane	ND	6.2	ug/kg	
563-58-6	1,1-Dichloropropene	ND	6.2	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.5	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.5	ug/kg	
100-41-4	Ethylbenzene	ND	2.5	ug/kg	
76-13-1	Freon 113	ND	6.2	ug/kg	
87-68-3	Hexachlorobutadiene	ND	6.2	ug/kg	
591-78-6	2-Hexanone	ND	12	ug/kg	
98-82-8	Isopropylbenzene	ND	6.2	ug/kg	
99-87-6	p-Isopropyltoluene	ND	6.2	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.5	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	6.2	ug/kg	
74-95-3	Methylene bromide	ND	6.2	ug/kg	
75-09-2	Methylene chloride	ND	2.5	ug/kg	
91-20-3	Naphthalene	ND	6.2	ug/kg	
103-65-1	n-Propylbenzene	ND	6.2	ug/kg	
100-42-5	Styrene	ND	6.2	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	6.2	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.5	ug/kg	
127-18-4	Tetrachloroethene	ND	2.5	ug/kg	
109-99-9	Tetrahydrofuran	ND	12	ug/kg	
108-88-3	Toluene	ND	6.2	ug/kg	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	6.2	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	6.2	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	6.2	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.5	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.5	ug/kg	
79-01-6	Trichloroethene	ND	2.5	ug/kg	
75-69-4	Trichlorofluoromethane	ND	2.5	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	6.2	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	6.2	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	6.2	ug/kg	
75-01-4	Vinyl chloride	ND	2.5	ug/kg	
	m,p-Xylene	ND	2.5	ug/kg	
95-47-6	o-Xylene	ND	2.5	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	90%		65-141%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-12C		Date Sampled: 08/24/16
Lab Sample ID: MC47506-5		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 93.3
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	101%		65-129%
460-00-4	4-Bromofluorobenzene	103%		63-137%

(a) Initial Calibration Verification outside of acceptance criteria. Sample result may be biased high.

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-12C		Date Sampled: 08/24/16
Lab Sample ID: MC47506-5		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 93.3
Method: SW846 8270D SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X12357.D	1	08/30/16	AA	08/28/16	OP48552	MSX413
Run #2 ^a	X12386.D	10	08/31/16	AA	08/28/16	OP48552	MSX414

Run #	Initial Weight	Final Volume
Run #1	20.4 g	1.0 ml
Run #2	20.4 g	1.0 ml

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
95-57-8	2-Chlorophenol	ND	260	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	520	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	520	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	520	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	520	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	520	ug/kg	
95-48-7	2-Methylphenol	ND	520	ug/kg	
106-44-5	4-Methylphenol	ND	520	ug/kg	
88-75-5	2-Nitrophenol	ND	520	ug/kg	
100-02-7	4-Nitrophenol	ND	520	ug/kg	
87-86-5	Pentachlorophenol	ND	520	ug/kg	
108-95-2	Phenol	ND	260	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	520	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	520	ug/kg	
83-32-9	Acenaphthene	ND	100	ug/kg	
208-96-8	Acenaphthylene	ND	100	ug/kg	
62-53-3	Aniline	ND	520	ug/kg	
120-12-7	Anthracene	ND	100	ug/kg	
56-55-3	Benzo(a)anthracene	ND	100	ug/kg	
50-32-8	Benzo(a)pyrene	ND	260	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	100	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	100	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	100	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	260	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	260	ug/kg	
91-58-7	2-Chloronaphthalene	ND	260	ug/kg	
106-47-8	4-Chloroaniline	ND	520	ug/kg	
86-74-8	Carbazole	ND	100	ug/kg	
218-01-9	Chrysene	ND	100	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	260	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	260	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	260	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-12C	Date Sampled:	08/24/16
Lab Sample ID:	MC47506-5	Date Received:	08/25/16
Matrix:	SO - Soil	Percent Solids:	93.3
Method:	SW846 8270D SW846 3546		
Project:	424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	260	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	520	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	520	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	520	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	100	ug/kg	
132-64-9	Dibenzofuran	ND	100	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	260	ug/kg	
117-84-0	Di-n-octyl phthalate ^b	ND	260	ug/kg	
84-66-2	Diethyl phthalate	ND	260	ug/kg	
131-11-3	Dimethyl phthalate	ND	260	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	260	ug/kg	
206-44-0	Fluoranthene	ND	100	ug/kg	
86-73-7	Fluorene	ND	100	ug/kg	
118-74-1	Hexachlorobenzene	ND	260	ug/kg	
87-68-3	Hexachlorobutadiene	ND	260	ug/kg	
77-47-4	Hexachlorocyclopentadiene ^b	ND	520	ug/kg	
67-72-1	Hexachloroethane	ND	260	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	260	ug/kg	
78-59-1	Isophorone	ND	260	ug/kg	
91-57-6	2-Methylnaphthalene	ND	100	ug/kg	
88-74-4	2-Nitroaniline	ND	520	ug/kg	
99-09-2	3-Nitroaniline	ND	520	ug/kg	
100-01-6	4-Nitroaniline	ND	520	ug/kg	
91-20-3	Naphthalene	ND	100	ug/kg	
98-95-3	Nitrobenzene	ND	260	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	260	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	260	ug/kg	
82-68-8	Pentachloronitrobenzene	ND	520	ug/kg	
85-01-8	Phenanthrene	ND	100	ug/kg	
129-00-0	Pyrene	ND	100	ug/kg	
110-86-1	Pyridine	ND	520	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	520	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	260	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	3% ^c	0% ^c	25-109%
4165-62-2	Phenol-d5	28% ^c	28% ^c	29-113%
118-79-6	2,4,6-Tribromophenol	10% ^c	0% ^c	20-141%
4165-60-0	Nitrobenzene-d5	90%	88%	27-115%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-12C		Date Sampled: 08/24/16
Lab Sample ID: MC47506-5		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 93.3
Method: SW846 8270D SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

ABN RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	84%	83%	34-118%
1718-51-0	Terphenyl-d14	87%	79%	42-139%

- (a) Confirmation run for surrogate recoveries.
- (b) Continuing Calibration outside of acceptance criteria. Reporting Limit Response verified by low-level standard.
- (c) Outside control limits due to possible matrix interference. Confirmed by reanalysis.

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.9
4

Report of Analysis

Client Sample ID:	GP-12C	Date Sampled:	08/24/16
Lab Sample ID:	MC47506-5	Date Received:	08/25/16
Matrix:	SO - Soil	Percent Solids:	93.3
Method:	CT-ETPH 7/06 SW846 3546		
Project:	424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IR2599.D	1	08/30/16	MD	08/28/16	OP48556	GIR178
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-ETPH (C9-C36)	85.6	18	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	79%		50-137%	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.9
4

Report of Analysis

Client Sample ID: GP-12C		Date Sampled: 08/24/16
Lab Sample ID: MC47506-5		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 93.3
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	2.9	0.88	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Barium	49.3	4.4	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Cadmium	< 0.35	0.35	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Chromium	16.5	0.88	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Lead	3.4	0.88	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Mercury	< 0.032	0.032	mg/kg	1	08/31/16	08/31/16 EAL	SW846 7471B ²	SW846 7471B ⁴
Selenium	< 0.88	0.88	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Silver	< 0.44	0.44	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³

- (1) Instrument QC Batch: MA19418
- (2) Instrument QC Batch: MA19431
- (3) Prep QC Batch: MP26696
- (4) Prep QC Batch: MP26718

RL = Reporting Limit

4.9
4

Report of Analysis

Client Sample ID: GP-12C		Date Sampled: 08/24/16
Lab Sample ID: MC47506-5A		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 93.3
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

4.10
4

Metals Analysis, SPLP Leachate SW846 1312

Analyte	Result	MCL	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 0.010	0.010		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Barium	< 0.50	0.50		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Cadmium	< 0.0040	0.0040		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Chromium	0.020	0.010		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Lead	< 0.010	0.010		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Mercury	< 0.00020	0.00020		mg/l	1	08/30/16	08/31/16 EAL	SW846 7470A ²	SW846 7470A ⁴
Selenium	< 0.025	0.025		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Silver	< 0.0050	0.0050		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³

- (1) Instrument QC Batch: MA19425
- (2) Instrument QC Batch: MA19426
- (3) Prep QC Batch: MP26708
- (4) Prep QC Batch: MP26713

RL = Reporting Limit
MCL = Maximum Contamination Level (not available)

Report of Analysis

Client Sample ID: GP-13		Date Sampled: 08/24/16
Lab Sample ID: MC47506-6		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 83.3
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M80613.D	1	08/30/16	KP	n/a	n/a	MSM2885
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	4.33 g	5.0 ml
Run #2		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone ^a	131	14	ug/kg	
107-13-1	Acrylonitrile	ND	35	ug/kg	
71-43-2	Benzene	ND	0.69	ug/kg	
108-86-1	Bromobenzene	ND	6.9	ug/kg	
75-27-4	Bromodichloromethane	ND	2.8	ug/kg	
75-25-2	Bromoform	ND	2.8	ug/kg	
74-83-9	Bromomethane	ND	2.8	ug/kg	
78-93-3	2-Butanone (MEK)	ND	28	ug/kg	
104-51-8	n-Butylbenzene	ND	6.9	ug/kg	
135-98-8	sec-Butylbenzene	ND	6.9	ug/kg	
98-06-6	tert-Butylbenzene	ND	6.9	ug/kg	
75-15-0	Carbon disulfide	ND	6.9	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.8	ug/kg	
108-90-7	Chlorobenzene	ND	2.8	ug/kg	
75-00-3	Chloroethane	ND	6.9	ug/kg	
67-66-3	Chloroform	ND	2.8	ug/kg	
74-87-3	Chloromethane	ND	6.9	ug/kg	
95-49-8	o-Chlorotoluene	ND	6.9	ug/kg	
106-43-4	p-Chlorotoluene	ND	6.9	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	6.9	ug/kg	
124-48-1	Dibromochloromethane	ND	2.8	ug/kg	
106-93-4	1,2-Dibromoethane	ND	2.8	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	2.8	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	2.8	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	2.8	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	2.8	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.8	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.8	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.8	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.8	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.8	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.8	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-13	Date Sampled:	08/24/16
Lab Sample ID:	MC47506-6	Date Received:	08/25/16
Matrix:	SO - Soil	Percent Solids:	83.3
Method:	SW846 8260C		
Project:	424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	6.9	ug/kg	
594-20-7	2,2-Dichloropropane	ND	6.9	ug/kg	
563-58-6	1,1-Dichloropropene	ND	6.9	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.8	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.8	ug/kg	
100-41-4	Ethylbenzene	ND	2.8	ug/kg	
76-13-1	Freon 113	ND	6.9	ug/kg	
87-68-3	Hexachlorobutadiene	ND	6.9	ug/kg	
591-78-6	2-Hexanone	ND	14	ug/kg	
98-82-8	Isopropylbenzene	ND	6.9	ug/kg	
99-87-6	p-Isopropyltoluene	ND	6.9	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.8	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	6.9	ug/kg	
74-95-3	Methylene bromide	ND	6.9	ug/kg	
75-09-2	Methylene chloride	ND	2.8	ug/kg	
91-20-3	Naphthalene	ND	6.9	ug/kg	
103-65-1	n-Propylbenzene	ND	6.9	ug/kg	
100-42-5	Styrene	ND	6.9	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	6.9	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.8	ug/kg	
127-18-4	Tetrachloroethene	ND	2.8	ug/kg	
109-99-9	Tetrahydrofuran	ND	14	ug/kg	
108-88-3	Toluene	ND	6.9	ug/kg	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	6.9	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	6.9	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	6.9	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.8	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.8	ug/kg	
79-01-6	Trichloroethene	ND	2.8	ug/kg	
75-69-4	Trichlorofluoromethane	ND	2.8	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	6.9	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	6.9	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	6.9	ug/kg	
75-01-4	Vinyl chloride	ND	2.8	ug/kg	
	m,p-Xylene	ND	2.8	ug/kg	
95-47-6	o-Xylene	ND	2.8	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		65-141%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-13		Date Sampled: 08/24/16
Lab Sample ID: MC47506-6		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 83.3
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

4.11
4

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	101%		65-129%
460-00-4	4-Bromofluorobenzene	109%		63-137%

(a) Initial Calibration Verification outside of acceptance criteria. Sample result may be biased high.

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-13		Date Sampled: 08/24/16
Lab Sample ID: MC47506-6		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 83.3
Method: SW846 8270D SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X12358.D	1	08/30/16	AA	08/28/16	OP48552	MSX413
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.5 g	1.0 ml
Run #2		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
95-57-8	2-Chlorophenol	ND	290	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	580	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	580	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	580	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	580	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	580	ug/kg	
95-48-7	2-Methylphenol	ND	580	ug/kg	
106-44-5	4-Methylphenol	ND	580	ug/kg	
88-75-5	2-Nitrophenol	ND	580	ug/kg	
100-02-7	4-Nitrophenol	ND	580	ug/kg	
87-86-5	Pentachlorophenol	ND	580	ug/kg	
108-95-2	Phenol	ND	290	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	580	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	580	ug/kg	
83-32-9	Acenaphthene	ND	120	ug/kg	
208-96-8	Acenaphthylene	ND	120	ug/kg	
62-53-3	Aniline	ND	580	ug/kg	
120-12-7	Anthracene	ND	120	ug/kg	
56-55-3	Benzo(a)anthracene	276	120	ug/kg	
50-32-8	Benzo(a)pyrene	333	290	ug/kg	
205-99-2	Benzo(b)fluoranthene	360	120	ug/kg	
191-24-2	Benzo(g,h,i)perylene	263	120	ug/kg	
207-08-9	Benzo(k)fluoranthene	283	120	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	290	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	290	ug/kg	
91-58-7	2-Chloronaphthalene	ND	290	ug/kg	
106-47-8	4-Chloroaniline	ND	580	ug/kg	
86-74-8	Carbazole	ND	120	ug/kg	
218-01-9	Chrysene	348	120	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	290	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	290	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	290	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-13	Date Sampled:	08/24/16
Lab Sample ID:	MC47506-6	Date Received:	08/25/16
Matrix:	SO - Soil	Percent Solids:	83.3
Method:	SW846 8270D SW846 3546		
Project:	424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	290	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	580	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	580	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	580	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	120	ug/kg	
132-64-9	Dibenzofuran	ND	120	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	290	ug/kg	
117-84-0	Di-n-octyl phthalate ^a	ND	290	ug/kg	
84-66-2	Diethyl phthalate	ND	290	ug/kg	
131-11-3	Dimethyl phthalate	ND	290	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	290	ug/kg	
206-44-0	Fluoranthene	669	120	ug/kg	
86-73-7	Fluorene	ND	120	ug/kg	
118-74-1	Hexachlorobenzene	ND	290	ug/kg	
87-68-3	Hexachlorobutadiene	ND	290	ug/kg	
77-47-4	Hexachlorocyclopentadiene ^a	ND	580	ug/kg	
67-72-1	Hexachloroethane	ND	290	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	294	290	ug/kg	
78-59-1	Isophorone	ND	290	ug/kg	
91-57-6	2-Methylnaphthalene	ND	120	ug/kg	
88-74-4	2-Nitroaniline	ND	580	ug/kg	
99-09-2	3-Nitroaniline	ND	580	ug/kg	
100-01-6	4-Nitroaniline	ND	580	ug/kg	
91-20-3	Naphthalene	ND	120	ug/kg	
98-95-3	Nitrobenzene	ND	290	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	290	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	290	ug/kg	
82-68-8	Pentachloronitrobenzene	ND	580	ug/kg	
85-01-8	Phenanthrene	320	120	ug/kg	
129-00-0	Pyrene	432	120	ug/kg	
110-86-1	Pyridine	ND	580	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	580	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	290	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	73%		25-109%
4165-62-2	Phenol-d5	76%		29-113%
118-79-6	2,4,6-Tribromophenol	84%		20-141%
4165-60-0	Nitrobenzene-d5	75%		27-115%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-13		Date Sampled: 08/24/16
Lab Sample ID: MC47506-6		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 83.3
Method: SW846 8270D SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

4.11
4

ABN RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	74%		34-118%
1718-51-0	Terphenyl-d14	70%		42-139%

(a) Continuing Calibration outside of acceptance criteria. Reporting Limit Response verified by low-level standard.

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-13	Date Sampled: 08/24/16
Lab Sample ID: MC47506-6	Date Received: 08/25/16
Matrix: SO - Soil	Percent Solids: 83.3
Method: CT-ETPH 7/06 SW846 3546	
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IR2609.D	1	08/30/16	MD	08/28/16	OP48556	GIR178
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.7 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-ETPH (C9-C36)	201	19	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	69%		50-137%	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.11
4

Report of Analysis

Client Sample ID: GP-13		Date Sampled: 08/24/16
Lab Sample ID: MC47506-6		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 83.3
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analized By	Method	Prep Method
Arsenic	4.0	0.93	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Barium	65.1	4.7	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Cadmium	< 0.37	0.37	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Chromium	17.9	0.93	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Lead	54.8	0.93	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Mercury	0.073	0.037	mg/kg	1	08/31/16	08/31/16 EAL	SW846 7471B ²	SW846 7471B ⁴
Selenium	< 0.93	0.93	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Silver	< 0.47	0.47	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³

- (1) Instrument QC Batch: MA19418
- (2) Instrument QC Batch: MA19431
- (3) Prep QC Batch: MP26696
- (4) Prep QC Batch: MP26718

RL = Reporting Limit

4.11
4

Report of Analysis

Client Sample ID: GP-13 Lab Sample ID: MC47506-6A Matrix: SO - Soil Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT	Date Sampled: 08/24/16 Date Received: 08/25/16 Percent Solids: 83.3
---	--

4.12
4

Metals Analysis, SPLP Leachate SW846 1312

Analyte	Result	MCL	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 0.010	0.010		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Barium	< 0.50	0.50		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Cadmium	< 0.0040	0.0040		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Chromium	< 0.010	0.010		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Lead	0.017	0.010		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Mercury	< 0.00020	0.00020		mg/l	1	08/30/16	08/31/16 EAL	SW846 7470A ²	SW846 7470A ⁴
Selenium	< 0.025	0.025		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Silver	< 0.0050	0.0050		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³

- (1) Instrument QC Batch: MA19425
- (2) Instrument QC Batch: MA19426
- (3) Prep QC Batch: MP26708
- (4) Prep QC Batch: MP26713

RL = Reporting Limit
MCL = Maximum Contamination Level (not available)

Report of Analysis

Client Sample ID: GP-4		Date Sampled: 08/24/16
Lab Sample ID: MC47506-7		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 91.4
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M80595.D	1	08/29/16	KP	n/a	n/a	MSM2884
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	2.76 g	5.0 ml
Run #2		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	20	ug/kg	
107-13-1	Acrylonitrile	ND	50	ug/kg	
71-43-2	Benzene	ND	0.99	ug/kg	
108-86-1	Bromobenzene	ND	9.9	ug/kg	
75-27-4	Bromodichloromethane	ND	4.0	ug/kg	
75-25-2	Bromoform	ND	4.0	ug/kg	
74-83-9	Bromomethane	ND	4.0	ug/kg	
78-93-3	2-Butanone (MEK)	ND	40	ug/kg	
104-51-8	n-Butylbenzene	ND	9.9	ug/kg	
135-98-8	sec-Butylbenzene	ND	9.9	ug/kg	
98-06-6	tert-Butylbenzene	ND	9.9	ug/kg	
75-15-0	Carbon disulfide	ND	9.9	ug/kg	
56-23-5	Carbon tetrachloride	ND	4.0	ug/kg	
108-90-7	Chlorobenzene	ND	4.0	ug/kg	
75-00-3	Chloroethane	ND	9.9	ug/kg	
67-66-3	Chloroform	ND	4.0	ug/kg	
74-87-3	Chloromethane	ND	9.9	ug/kg	
95-49-8	o-Chlorotoluene	ND	9.9	ug/kg	
106-43-4	p-Chlorotoluene	ND	9.9	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	9.9	ug/kg	
124-48-1	Dibromochloromethane	ND	4.0	ug/kg	
106-93-4	1,2-Dibromoethane	ND	4.0	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	4.0	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	4.0	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	4.0	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	4.0	ug/kg	
75-34-3	1,1-Dichloroethane	ND	4.0	ug/kg	
107-06-2	1,2-Dichloroethane	ND	4.0	ug/kg	
75-35-4	1,1-Dichloroethene	ND	4.0	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	4.0	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	4.0	ug/kg	
78-87-5	1,2-Dichloropropane	ND	4.0	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-4		Date Sampled: 08/24/16
Lab Sample ID: MC47506-7		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 91.4
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	9.9	ug/kg	
594-20-7	2,2-Dichloropropane	ND	9.9	ug/kg	
563-58-6	1,1-Dichloropropene	ND	9.9	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	4.0	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	4.0	ug/kg	
100-41-4	Ethylbenzene	ND	4.0	ug/kg	
76-13-1	Freon 113	ND	9.9	ug/kg	
87-68-3	Hexachlorobutadiene	ND	9.9	ug/kg	
591-78-6	2-Hexanone	ND	20	ug/kg	
98-82-8	Isopropylbenzene	ND	9.9	ug/kg	
99-87-6	p-Isopropyltoluene	ND	9.9	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	4.0	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	9.9	ug/kg	
74-95-3	Methylene bromide	ND	9.9	ug/kg	
75-09-2	Methylene chloride	ND	4.0	ug/kg	
91-20-3	Naphthalene	ND	9.9	ug/kg	
103-65-1	n-Propylbenzene	ND	9.9	ug/kg	
100-42-5	Styrene	ND	9.9	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	9.9	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	4.0	ug/kg	
127-18-4	Tetrachloroethene	ND	4.0	ug/kg	
109-99-9	Tetrahydrofuran	ND	20	ug/kg	
108-88-3	Toluene	ND	9.9	ug/kg	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	9.9	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	9.9	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	9.9	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	4.0	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	4.0	ug/kg	
79-01-6	Trichloroethene	ND	4.0	ug/kg	
75-69-4	Trichlorofluoromethane	ND	4.0	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	9.9	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	9.9	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	9.9	ug/kg	
75-01-4	Vinyl chloride	ND	4.0	ug/kg	
	m,p-Xylene	ND	4.0	ug/kg	
95-47-6	o-Xylene	ND	4.0	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	109%		65-141%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-4		Date Sampled: 08/24/16
Lab Sample ID: MC47506-7		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 91.4
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

4.13
4

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	100%		65-129%
460-00-4	4-Bromofluorobenzene	117%		63-137%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-4		Date Sampled: 08/24/16
Lab Sample ID: MC47506-7		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 91.4
Method: SW846 8270D SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	X12381.D	2	08/31/16	AA	08/28/16	OP48552	MSX414
Run #2							

Run #	Initial Weight	Final Volume
Run #1	20.1 g	1.0 ml
Run #2		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
95-57-8	2-Chlorophenol	ND	540	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	1100	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	1100	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	1100	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	1100	ug/kg	
95-48-7	2-Methylphenol	ND	1100	ug/kg	
106-44-5	4-Methylphenol	ND	1100	ug/kg	
88-75-5	2-Nitrophenol	ND	1100	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	ug/kg	
87-86-5	Pentachlorophenol	ND	1100	ug/kg	
108-95-2	Phenol	ND	540	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	1100	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	1100	ug/kg	
83-32-9	Acenaphthene	ND	220	ug/kg	
208-96-8	Acenaphthylene	ND	220	ug/kg	
62-53-3	Aniline	ND	1100	ug/kg	
120-12-7	Anthracene	ND	220	ug/kg	
56-55-3	Benzo(a)anthracene	396	220	ug/kg	
50-32-8	Benzo(a)pyrene	ND	540	ug/kg	
205-99-2	Benzo(b)fluoranthene	318	220	ug/kg	
191-24-2	Benzo(g,h,i)perylene	240	220	ug/kg	
207-08-9	Benzo(k)fluoranthene	288	220	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	540	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	540	ug/kg	
91-58-7	2-Chloronaphthalene	ND	540	ug/kg	
106-47-8	4-Chloroaniline	ND	1100	ug/kg	
86-74-8	Carbazole	ND	220	ug/kg	
218-01-9	Chrysene	469	220	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	540	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	540	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	540	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-4	Date Sampled:	08/24/16
Lab Sample ID:	MC47506-7	Date Received:	08/25/16
Matrix:	SO - Soil	Percent Solids:	91.4
Method:	SW846 8270D SW846 3546		
Project:	424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	540	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	1100	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	1100	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1100	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	220	ug/kg	
132-64-9	Dibenzofuran	ND	220	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	540	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	540	ug/kg	
84-66-2	Diethyl phthalate	ND	540	ug/kg	
131-11-3	Dimethyl phthalate	ND	540	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	540	ug/kg	
206-44-0	Fluoranthene	1400	220	ug/kg	
86-73-7	Fluorene	ND	220	ug/kg	
118-74-1	Hexachlorobenzene	ND	540	ug/kg	
87-68-3	Hexachlorobutadiene	ND	540	ug/kg	
77-47-4	Hexachlorocyclopentadiene ^b	ND	1100	ug/kg	
67-72-1	Hexachloroethane	ND	540	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	540	ug/kg	
78-59-1	Isophorone	ND	540	ug/kg	
91-57-6	2-Methylnaphthalene	ND	220	ug/kg	
88-74-4	2-Nitroaniline	ND	1100	ug/kg	
99-09-2	3-Nitroaniline	ND	1100	ug/kg	
100-01-6	4-Nitroaniline	ND	1100	ug/kg	
91-20-3	Naphthalene	ND	220	ug/kg	
98-95-3	Nitrobenzene	ND	540	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	540	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	540	ug/kg	
82-68-8	Pentachloronitrobenzene	ND	1100	ug/kg	
85-01-8	Phenanthrene	1280	220	ug/kg	
129-00-0	Pyrene	955	220	ug/kg	
110-86-1	Pyridine	ND	1100	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	1100	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	540	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	85%		25-109%
4165-62-2	Phenol-d5	84%		29-113%
118-79-6	2,4,6-Tribromophenol	71%		20-141%
4165-60-0	Nitrobenzene-d5	79%		27-115%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-4		Date Sampled: 08/24/16
Lab Sample ID: MC47506-7		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 91.4
Method: SW846 8270D SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

4.13
4

ABN RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	73%		34-118%
1718-51-0	Terphenyl-d14	73%		42-139%

- (a) Elevated RL due to dilution required for matrix interference.
- (b) Continuing Calibration outside of acceptance criteria. Reporting Limit Response verified by low-level standard.

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-4	Date Sampled: 08/24/16
Lab Sample ID: MC47506-7	Date Received: 08/25/16
Matrix: SO - Soil	Percent Solids: 91.4
Method: CT-ETPH 7/06 SW846 3546	
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IR2610.D	10	08/30/16	MD	08/28/16	OP48556	GIR178
Run #2							

	Initial Weight	Final Volume
Run #1	15.2 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-ETPH (C9-C36)	628	180	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	73%		50-137%	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.13
4

Report of Analysis

Client Sample ID: GP-4		Date Sampled: 08/24/16
Lab Sample ID: MC47506-7		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 91.4
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analized By	Method	Prep Method
Arsenic	2.4	0.88	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Barium	180	4.4	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Cadmium	< 0.35	0.35	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Chromium	9.0	0.88	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Lead	41.7	0.88	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Mercury	0.034	0.032	mg/kg	1	08/31/16	08/31/16 EAL	SW846 7471B ²	SW846 7471B ⁴
Selenium	< 0.88	0.88	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Silver	< 0.44	0.44	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³

- (1) Instrument QC Batch: MA19418
- (2) Instrument QC Batch: MA19431
- (3) Prep QC Batch: MP26696
- (4) Prep QC Batch: MP26718

RL = Reporting Limit

4.13
4

Report of Analysis

Client Sample ID: GP-4		Date Sampled: 08/24/16
Lab Sample ID: MC47506-7A		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 91.4
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Metals Analysis, SPLP Leachate SW846 1312

Analyte	Result	MCL	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 0.010	0.010		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Barium	< 0.50	0.50		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Cadmium	< 0.0040	0.0040		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Chromium	0.011	0.010		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Lead	0.019	0.010		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Mercury	< 0.00020	0.00020		mg/l	1	08/30/16	08/31/16 EAL	SW846 7470A ²	SW846 7470A ⁴
Selenium	< 0.025	0.025		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Silver	< 0.0050	0.0050		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³

- (1) Instrument QC Batch: MA19425
- (2) Instrument QC Batch: MA19426
- (3) Prep QC Batch: MP26708
- (4) Prep QC Batch: MP26713

RL = Reporting Limit
MCL = Maximum Contamination Level (not available)

4.14
4

Report of Analysis

Client Sample ID: GP-14		
Lab Sample ID: MC47506-8		Date Sampled: 08/24/16
Matrix: SO - Soil		Date Received: 08/25/16
Method: SW846 8260C		Percent Solids: 88.2
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M80596.D	1	08/29/16	KP	n/a	n/a	MSM2884
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	5.41 g	5.0 ml
Run #2		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone ^a	36.3	10	ug/kg	
107-13-1	Acrylonitrile	ND	26	ug/kg	
71-43-2	Benzene	ND	0.52	ug/kg	
108-86-1	Bromobenzene	ND	5.2	ug/kg	
75-27-4	Bromodichloromethane	ND	2.1	ug/kg	
75-25-2	Bromoform	ND	2.1	ug/kg	
74-83-9	Bromomethane	ND	2.1	ug/kg	
78-93-3	2-Butanone (MEK)	ND	21	ug/kg	
104-51-8	n-Butylbenzene	ND	5.2	ug/kg	
135-98-8	sec-Butylbenzene	ND	5.2	ug/kg	
98-06-6	tert-Butylbenzene	ND	5.2	ug/kg	
75-15-0	Carbon disulfide	ND	5.2	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.1	ug/kg	
108-90-7	Chlorobenzene	ND	2.1	ug/kg	
75-00-3	Chloroethane	ND	5.2	ug/kg	
67-66-3	Chloroform	ND	2.1	ug/kg	
74-87-3	Chloromethane	ND	5.2	ug/kg	
95-49-8	o-Chlorotoluene	ND	5.2	ug/kg	
106-43-4	p-Chlorotoluene	ND	5.2	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.2	ug/kg	
124-48-1	Dibromochloromethane	ND	2.1	ug/kg	
106-93-4	1,2-Dibromoethane	ND	2.1	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	2.1	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	2.1	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	2.1	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	2.1	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.1	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.1	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.1	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.1	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.1	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.1	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-14		Date Sampled: 08/24/16
Lab Sample ID: MC47506-8		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 88.2
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.2	ug/kg	
594-20-7	2,2-Dichloropropane	ND	5.2	ug/kg	
563-58-6	1,1-Dichloropropene	ND	5.2	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.1	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.1	ug/kg	
100-41-4	Ethylbenzene	ND	2.1	ug/kg	
76-13-1	Freon 113	ND	5.2	ug/kg	
87-68-3	Hexachlorobutadiene	ND	5.2	ug/kg	
591-78-6	2-Hexanone	ND	10	ug/kg	
98-82-8	Isopropylbenzene	ND	5.2	ug/kg	
99-87-6	p-Isopropyltoluene	ND	5.2	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.1	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.2	ug/kg	
74-95-3	Methylene bromide	ND	5.2	ug/kg	
75-09-2	Methylene chloride	ND	2.1	ug/kg	
91-20-3	Naphthalene	ND	5.2	ug/kg	
103-65-1	n-Propylbenzene	ND	5.2	ug/kg	
100-42-5	Styrene	ND	5.2	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.2	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.1	ug/kg	
127-18-4	Tetrachloroethene	ND	2.1	ug/kg	
109-99-9	Tetrahydrofuran	ND	10	ug/kg	
108-88-3	Toluene	ND	5.2	ug/kg	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.2	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.2	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.2	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.1	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.1	ug/kg	
79-01-6	Trichloroethene	ND	2.1	ug/kg	
75-69-4	Trichlorofluoromethane	ND	2.1	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	5.2	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	5.2	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	5.2	ug/kg	
75-01-4	Vinyl chloride	ND	2.1	ug/kg	
	m,p-Xylene	ND	2.1	ug/kg	
95-47-6	o-Xylene	ND	2.1	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		65-141%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-14		Date Sampled: 08/24/16
Lab Sample ID: MC47506-8		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 88.2
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

4.15
4

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	100%		65-129%
460-00-4	4-Bromofluorobenzene	107%		63-137%

(a) Initial Calibration Verification outside of acceptance criteria. Sample result may be biased high.

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-14		Date Sampled: 08/24/16
Lab Sample ID: MC47506-8		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 88.2
Method: SW846 8270D SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X12360.D	1	08/30/16	AA	08/28/16	OP48552	MSX413
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	21.0 g	1.0 ml
Run #2		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
95-57-8	2-Chlorophenol	ND	270	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	540	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	540	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	540	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	540	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	540	ug/kg	
95-48-7	2-Methylphenol	ND	540	ug/kg	
106-44-5	4-Methylphenol	ND	540	ug/kg	
88-75-5	2-Nitrophenol	ND	540	ug/kg	
100-02-7	4-Nitrophenol	ND	540	ug/kg	
87-86-5	Pentachlorophenol	ND	540	ug/kg	
108-95-2	Phenol	ND	270	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	540	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	540	ug/kg	
83-32-9	Acenaphthene	ND	110	ug/kg	
208-96-8	Acenaphthylene	ND	110	ug/kg	
62-53-3	Aniline	ND	540	ug/kg	
120-12-7	Anthracene	ND	110	ug/kg	
56-55-3	Benzo(a)anthracene	120	110	ug/kg	
50-32-8	Benzo(a)pyrene	ND	270	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	270	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	270	ug/kg	
91-58-7	2-Chloronaphthalene	ND	270	ug/kg	
106-47-8	4-Chloroaniline	ND	540	ug/kg	
86-74-8	Carbazole	ND	110	ug/kg	
218-01-9	Chrysene	115	110	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	270	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	270	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	270	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-14	Date Sampled:	08/24/16
Lab Sample ID:	MC47506-8	Date Received:	08/25/16
Matrix:	SO - Soil	Percent Solids:	88.2
Method:	SW846 8270D SW846 3546		
Project:	424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	270	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	540	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	540	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	540	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	ug/kg	
132-64-9	Dibenzofuran	ND	110	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	270	ug/kg	
117-84-0	Di-n-octyl phthalate ^a	ND	270	ug/kg	
84-66-2	Diethyl phthalate	ND	270	ug/kg	
131-11-3	Dimethyl phthalate	ND	270	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	270	ug/kg	
206-44-0	Fluoranthene	237	110	ug/kg	
86-73-7	Fluorene	ND	110	ug/kg	
118-74-1	Hexachlorobenzene	ND	270	ug/kg	
87-68-3	Hexachlorobutadiene	ND	270	ug/kg	
77-47-4	Hexachlorocyclopentadiene ^a	ND	540	ug/kg	
67-72-1	Hexachloroethane	ND	270	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	270	ug/kg	
78-59-1	Isophorone	ND	270	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	ug/kg	
88-74-4	2-Nitroaniline	ND	540	ug/kg	
99-09-2	3-Nitroaniline	ND	540	ug/kg	
100-01-6	4-Nitroaniline	ND	540	ug/kg	
91-20-3	Naphthalene	ND	110	ug/kg	
98-95-3	Nitrobenzene	ND	270	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	270	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	270	ug/kg	
82-68-8	Pentachloronitrobenzene	ND	540	ug/kg	
85-01-8	Phenanthrene	ND	110	ug/kg	
129-00-0	Pyrene	169	110	ug/kg	
110-86-1	Pyridine	ND	540	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	540	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	270	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	80%		25-109%
4165-62-2	Phenol-d5	88%		29-113%
118-79-6	2,4,6-Tribromophenol	96%		20-141%
4165-60-0	Nitrobenzene-d5	74%		27-115%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-14		Date Sampled: 08/24/16
Lab Sample ID: MC47506-8		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 88.2
Method: SW846 8270D SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

4.15
4

ABN RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	80%		34-118%
1718-51-0	Terphenyl-d14	91%		42-139%

(a) Continuing Calibration outside of acceptance criteria. Reporting Limit Response verified by low-level standard.

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-14		Date Sampled: 08/24/16
Lab Sample ID: MC47506-8		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 88.2
Method: SW846 8082A SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK61327.D	1	08/31/16	NK	08/28/16	OP48554	GBK1921
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	15.6 g	10.0 ml
Run #2		

CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	36	ug/kg	
11104-28-2	Aroclor 1221	ND	36	ug/kg	
11141-16-5	Aroclor 1232	ND	36	ug/kg	
53469-21-9	Aroclor 1242	ND	36	ug/kg	
12672-29-6	Aroclor 1248	ND	36	ug/kg	
11097-69-1	Aroclor 1254	ND	36	ug/kg	
11096-82-5	Aroclor 1260	ND	36	ug/kg	
37324-23-5	Aroclor 1262	ND	36	ug/kg	
11100-14-4	Aroclor 1268	ND	36	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	75%		25-145%
877-09-8	Tetrachloro-m-xylene	76%		25-145%
2051-24-3	Decachlorobiphenyl	84%		25-179%
2051-24-3	Decachlorobiphenyl	81%		25-179%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.15
4

Report of Analysis

Client Sample ID: GP-14		Date Sampled: 08/24/16
Lab Sample ID: MC47506-8		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 88.2
Method: CT-ETPH 7/06 SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IR2606.D	1	08/30/16	MD	08/28/16	OP48556	GIR178
Run #2							

	Initial Weight	Final Volume
Run #1	16.0 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-ETPH (C9-C36)	24.2	18	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	68%		50-137%	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.15
4

Report of Analysis

Client Sample ID: GP-14		Date Sampled: 08/24/16
Lab Sample ID: MC47506-8		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 88.2
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	3.0	0.87	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Barium	57.2	4.3	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Cadmium	< 0.35	0.35	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Chromium	11.6	0.87	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Lead	24.0	0.87	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Mercury	0.25	0.034	mg/kg	1	08/31/16	08/31/16 EAL	SW846 7471B ²	SW846 7471B ⁴
Selenium	< 0.87	0.87	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Silver	< 0.43	0.43	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³

- (1) Instrument QC Batch: MA19418
- (2) Instrument QC Batch: MA19431
- (3) Prep QC Batch: MP26696
- (4) Prep QC Batch: MP26718

RL = Reporting Limit

4.15
4

Report of Analysis

Client Sample ID: GP-14 Lab Sample ID: MC47506-8A Matrix: SO - Soil Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT	Date Sampled: 08/24/16 Date Received: 08/25/16 Percent Solids: 88.2
---	--

4.16
4

Metals Analysis, SPLP Leachate SW846 1312

Analyte	Result	MCL	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 0.010	0.010		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Barium	< 0.50	0.50		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Cadmium	< 0.0040	0.0040		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Chromium	< 0.010	0.010		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Lead	< 0.010	0.010		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Mercury	< 0.00020	0.00020		mg/l	1	08/30/16	08/31/16 EAL	SW846 7470A ²	SW846 7470A ⁴
Selenium	< 0.025	0.025		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Silver	< 0.0050	0.0050		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³

- (1) Instrument QC Batch: MA19425
- (2) Instrument QC Batch: MA19426
- (3) Prep QC Batch: MP26708
- (4) Prep QC Batch: MP26713

RL = Reporting Limit
 MCL = Maximum Contamination Level (not available)

Report of Analysis

Client Sample ID: GP-5		Date Sampled: 08/24/16
Lab Sample ID: MC47506-9		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 92.1
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L99944.D	1	08/29/16	TB	n/a	n/a	MSL4337
Run #2							

Run #1	Initial Weight	Final Volume	Methanol Aliquot
Run #1	11.7 g	10.0 ml	200 ul
Run #2			

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	250	ug/kg	
107-13-1	Acrylonitrile	ND	630	ug/kg	
71-43-2	Benzene	ND	13	ug/kg	
108-86-1	Bromobenzene	ND	130	ug/kg	
75-27-4	Bromodichloromethane	ND	51	ug/kg	
75-25-2	Bromoform	ND	51	ug/kg	
74-83-9	Bromomethane	ND	51	ug/kg	
78-93-3	2-Butanone (MEK)	ND	250	ug/kg	
104-51-8	n-Butylbenzene	ND	130	ug/kg	
135-98-8	sec-Butylbenzene	ND	130	ug/kg	
98-06-6	tert-Butylbenzene	ND	130	ug/kg	
75-15-0	Carbon disulfide	ND	130	ug/kg	
56-23-5	Carbon tetrachloride	ND	51	ug/kg	
108-90-7	Chlorobenzene	ND	51	ug/kg	
75-00-3	Chloroethane ^a	ND	130	ug/kg	
67-66-3	Chloroform	ND	51	ug/kg	
74-87-3	Chloromethane	ND	130	ug/kg	
95-49-8	o-Chlorotoluene	ND	130	ug/kg	
106-43-4	p-Chlorotoluene	ND	130	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	130	ug/kg	
124-48-1	Dibromochloromethane	ND	51	ug/kg	
106-93-4	1,2-Dibromoethane	ND	51	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	51	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	51	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	51	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	51	ug/kg	
75-34-3	1,1-Dichloroethane	ND	51	ug/kg	
107-06-2	1,2-Dichloroethane	ND	51	ug/kg	
75-35-4	1,1-Dichloroethene	ND	51	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	51	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	51	ug/kg	
78-87-5	1,2-Dichloropropane	ND	51	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-5	Date Sampled:	08/24/16
Lab Sample ID:	MC47506-9	Date Received:	08/25/16
Matrix:	SO - Soil	Percent Solids:	92.1
Method:	SW846 8260C		
Project:	424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	130	ug/kg	
594-20-7	2,2-Dichloropropane	ND	130	ug/kg	
563-58-6	1,1-Dichloropropene	ND	130	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	51	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	51	ug/kg	
100-41-4	Ethylbenzene	ND	51	ug/kg	
76-13-1	Freon 113	ND	130	ug/kg	
87-68-3	Hexachlorobutadiene	ND	130	ug/kg	
591-78-6	2-Hexanone	ND	250	ug/kg	
98-82-8	Isopropylbenzene	ND	130	ug/kg	
99-87-6	p-Isopropyltoluene	ND	130	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	51	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	130	ug/kg	
74-95-3	Methylene bromide	ND	130	ug/kg	
75-09-2	Methylene chloride	ND	51	ug/kg	
91-20-3	Naphthalene	4850	130	ug/kg	
103-65-1	n-Propylbenzene	ND	130	ug/kg	
100-42-5	Styrene	ND	130	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	130	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	51	ug/kg	
127-18-4	Tetrachloroethene	ND	51	ug/kg	
109-99-9	Tetrahydrofuran	ND	250	ug/kg	
108-88-3	Toluene	ND	130	ug/kg	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	130	ug/kg	
87-61-6	1,2,3-Trichlorobenzene ^a	ND	130	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	130	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	51	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	51	ug/kg	
79-01-6	Trichloroethene	ND	51	ug/kg	
75-69-4	Trichlorofluoromethane	ND	51	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	130	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	130	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	130	ug/kg	
75-01-4	Vinyl chloride ^a	ND	51	ug/kg	
	m,p-Xylene	ND	51	ug/kg	
95-47-6	o-Xylene	ND	51	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	119%		65-141%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-5		Date Sampled: 08/24/16
Lab Sample ID: MC47506-9		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 92.1
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

4.17
4

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	98%		65-129%
460-00-4	4-Bromofluorobenzene	103%		63-137%

(a) Continuing Calibration outside of acceptance criteria. Reporting Limit response verified by low-level standard.

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-5		Date Sampled: 08/24/16
Lab Sample ID: MC47506-9		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 92.1
Method: SW846 8270D SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X12361.D	1	08/30/16	AA	08/28/16	OP48552	MSX413
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.7 g	1.0 ml
Run #2		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
95-57-8	2-Chlorophenol	ND	260	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	520	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	520	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	520	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	520	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	520	ug/kg	
95-48-7	2-Methylphenol	ND	520	ug/kg	
106-44-5	4-Methylphenol	ND	520	ug/kg	
88-75-5	2-Nitrophenol	ND	520	ug/kg	
100-02-7	4-Nitrophenol	ND	520	ug/kg	
87-86-5	Pentachlorophenol	ND	520	ug/kg	
108-95-2	Phenol	ND	260	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	520	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	520	ug/kg	
83-32-9	Acenaphthene	ND	100	ug/kg	
208-96-8	Acenaphthylene	ND	100	ug/kg	
62-53-3	Aniline	ND	520	ug/kg	
120-12-7	Anthracene	ND	100	ug/kg	
56-55-3	Benzo(a)anthracene	185	100	ug/kg	
50-32-8	Benzo(a)pyrene	ND	260	ug/kg	
205-99-2	Benzo(b)fluoranthene	166	100	ug/kg	
191-24-2	Benzo(g,h,i)perylene	139	100	ug/kg	
207-08-9	Benzo(k)fluoranthene	140	100	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	260	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	260	ug/kg	
91-58-7	2-Chloronaphthalene	ND	260	ug/kg	
106-47-8	4-Chloroaniline	ND	520	ug/kg	
86-74-8	Carbazole	ND	100	ug/kg	
218-01-9	Chrysene	199	100	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	260	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	260	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	260	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-5		Date Sampled: 08/24/16
Lab Sample ID: MC47506-9		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 92.1
Method: SW846 8270D SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	260	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	520	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	520	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	520	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	100	ug/kg	
132-64-9	Dibenzofuran	ND	100	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	260	ug/kg	
117-84-0	Di-n-octyl phthalate ^a	ND	260	ug/kg	
84-66-2	Diethyl phthalate	ND	260	ug/kg	
131-11-3	Dimethyl phthalate	ND	260	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	260	ug/kg	
206-44-0	Fluoranthene	388	100	ug/kg	
86-73-7	Fluorene	ND	100	ug/kg	
118-74-1	Hexachlorobenzene	ND	260	ug/kg	
87-68-3	Hexachlorobutadiene	ND	260	ug/kg	
77-47-4	Hexachlorocyclopentadiene ^a	ND	520	ug/kg	
67-72-1	Hexachloroethane	ND	260	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	260	ug/kg	
78-59-1	Isophorone	ND	260	ug/kg	
91-57-6	2-Methylnaphthalene	ND	100	ug/kg	
88-74-4	2-Nitroaniline	ND	520	ug/kg	
99-09-2	3-Nitroaniline	ND	520	ug/kg	
100-01-6	4-Nitroaniline	ND	520	ug/kg	
91-20-3	Naphthalene	129	100	ug/kg	
98-95-3	Nitrobenzene	ND	260	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	260	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	260	ug/kg	
82-68-8	Pentachloronitrobenzene	ND	520	ug/kg	
85-01-8	Phenanthrene	162	100	ug/kg	
129-00-0	Pyrene	302	100	ug/kg	
110-86-1	Pyridine	ND	520	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	520	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	260	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	96%		25-109%
4165-62-2	Phenol-d5	90%		29-113%
118-79-6	2,4,6-Tribromophenol	92%		20-141%
4165-60-0	Nitrobenzene-d5	81%		27-115%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-5		Date Sampled: 08/24/16
Lab Sample ID: MC47506-9		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 92.1
Method: SW846 8270D SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

4.17
4

ABN RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	81%		34-118%
1718-51-0	Terphenyl-d14	81%		42-139%

(a) Continuing Calibration outside of acceptance criteria. Reporting Limit Response verified by low-level standard.

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-5		Date Sampled: 08/24/16
Lab Sample ID: MC47506-9		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 92.1
Method: CT-ETPH 7/06 SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IR2607.D	1	08/30/16	MD	08/28/16	OP48556	GIR178
Run #2							

	Initial Weight	Final Volume
Run #1	15.5 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-ETPH (C9-C36)	70.7	18	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	69%		50-137%	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.17
4

Report of Analysis

Client Sample ID: GP-5	Date Sampled: 08/24/16
Lab Sample ID: MC47506-9	Date Received: 08/25/16
Matrix: SO - Soil	Percent Solids: 92.1
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT	

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	1.2	0.87	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Barium	65.5	4.3	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Cadmium	< 0.35	0.35	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Chromium	7.8	0.87	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Lead	15.6	0.87	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Mercury	< 0.034	0.034	mg/kg	1	08/31/16	08/31/16 EAL	SW846 7471B ²	SW846 7471B ⁴
Selenium	< 0.87	0.87	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Silver	< 0.43	0.43	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³

- (1) Instrument QC Batch: MA19418
- (2) Instrument QC Batch: MA19431
- (3) Prep QC Batch: MP26696
- (4) Prep QC Batch: MP26718

RL = Reporting Limit

4.17
4

Report of Analysis

Client Sample ID: GP-5		Date Sampled: 08/24/16
Lab Sample ID: MC47506-9A		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 92.1
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Metals Analysis, SPLP Leachate SW846 1312

Analyte	Result	MCL	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 0.010	0.010		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Barium	< 0.50	0.50		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Cadmium	< 0.0040	0.0040		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Chromium	< 0.010	0.010		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Lead	0.013	0.010		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Mercury	< 0.00020	0.00020		mg/l	1	08/30/16	08/31/16 EAL	SW846 7470A ²	SW846 7470A ⁴
Selenium	< 0.025	0.025		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Silver	< 0.0050	0.0050		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³

- (1) Instrument QC Batch: MA19425
- (2) Instrument QC Batch: MA19426
- (3) Prep QC Batch: MP26708
- (4) Prep QC Batch: MP26713

RL = Reporting Limit
MCL = Maximum Contamination Level (not available)

4.18
4

Report of Analysis

Client Sample ID: GP-3		Date Sampled: 08/24/16
Lab Sample ID: MC47506-10		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 90.9
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M80597.D	1	08/29/16	KP	n/a	n/a	MSM2884
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	5.85 g	5.0 ml
Run #2		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone ^a	33.5	9.4	ug/kg	
107-13-1	Acrylonitrile	ND	24	ug/kg	
71-43-2	Benzene	ND	0.47	ug/kg	
108-86-1	Bromobenzene	ND	4.7	ug/kg	
75-27-4	Bromodichloromethane	ND	1.9	ug/kg	
75-25-2	Bromoform	ND	1.9	ug/kg	
74-83-9	Bromomethane	ND	1.9	ug/kg	
78-93-3	2-Butanone (MEK)	ND	19	ug/kg	
104-51-8	n-Butylbenzene	ND	4.7	ug/kg	
135-98-8	sec-Butylbenzene	ND	4.7	ug/kg	
98-06-6	tert-Butylbenzene	ND	4.7	ug/kg	
75-15-0	Carbon disulfide	ND	4.7	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.9	ug/kg	
108-90-7	Chlorobenzene	ND	1.9	ug/kg	
75-00-3	Chloroethane	ND	4.7	ug/kg	
67-66-3	Chloroform	ND	1.9	ug/kg	
74-87-3	Chloromethane	ND	4.7	ug/kg	
95-49-8	o-Chlorotoluene	ND	4.7	ug/kg	
106-43-4	p-Chlorotoluene	ND	4.7	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	4.7	ug/kg	
124-48-1	Dibromochloromethane	ND	1.9	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.9	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.9	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.9	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.9	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	1.9	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.9	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.9	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.9	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.9	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.9	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.9	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-3		Date Sampled: 08/24/16
Lab Sample ID: MC47506-10		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 90.9
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	4.7	ug/kg	
594-20-7	2,2-Dichloropropane	ND	4.7	ug/kg	
563-58-6	1,1-Dichloropropene	ND	4.7	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.9	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.9	ug/kg	
100-41-4	Ethylbenzene	ND	1.9	ug/kg	
76-13-1	Freon 113	ND	4.7	ug/kg	
87-68-3	Hexachlorobutadiene	ND	4.7	ug/kg	
591-78-6	2-Hexanone	ND	9.4	ug/kg	
98-82-8	Isopropylbenzene	ND	4.7	ug/kg	
99-87-6	p-Isopropyltoluene	ND	4.7	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.9	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.7	ug/kg	
74-95-3	Methylene bromide	ND	4.7	ug/kg	
75-09-2	Methylene chloride	ND	1.9	ug/kg	
91-20-3	Naphthalene	ND	4.7	ug/kg	
103-65-1	n-Propylbenzene	ND	4.7	ug/kg	
100-42-5	Styrene	ND	4.7	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	4.7	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.9	ug/kg	
127-18-4	Tetrachloroethene	ND	1.9	ug/kg	
109-99-9	Tetrahydrofuran	ND	9.4	ug/kg	
108-88-3	Toluene	ND	4.7	ug/kg	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	4.7	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	4.7	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	4.7	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	1.9	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	1.9	ug/kg	
79-01-6	Trichloroethene	ND	1.9	ug/kg	
75-69-4	Trichlorofluoromethane	ND	1.9	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	4.7	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	4.7	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	4.7	ug/kg	
75-01-4	Vinyl chloride	ND	1.9	ug/kg	
	m,p-Xylene	ND	1.9	ug/kg	
95-47-6	o-Xylene	ND	1.9	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		65-141%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-3		Date Sampled: 08/24/16
Lab Sample ID: MC47506-10		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 90.9
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

4.19
4

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	101%		65-129%
460-00-4	4-Bromofluorobenzene	105%		63-137%

(a) Initial Calibration Verification outside of acceptance criteria. Sample result may be biased high.

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-3		Date Sampled: 08/24/16
Lab Sample ID: MC47506-10		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 90.9
Method: SW846 8270D SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X12362.D	1	08/30/16	AA	08/28/16	OP48552	MSX413
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.1 g	1.0 ml
Run #2		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
95-57-8	2-Chlorophenol	ND	270	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	550	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	550	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	550	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	550	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	550	ug/kg	
95-48-7	2-Methylphenol	ND	550	ug/kg	
106-44-5	4-Methylphenol	ND	550	ug/kg	
88-75-5	2-Nitrophenol	ND	550	ug/kg	
100-02-7	4-Nitrophenol	ND	550	ug/kg	
87-86-5	Pentachlorophenol	ND	550	ug/kg	
108-95-2	Phenol	ND	270	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	550	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	550	ug/kg	
83-32-9	Acenaphthene	ND	110	ug/kg	
208-96-8	Acenaphthylene	ND	110	ug/kg	
62-53-3	Aniline	ND	550	ug/kg	
120-12-7	Anthracene	ND	110	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	ug/kg	
50-32-8	Benzo(a)pyrene	ND	270	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	270	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	270	ug/kg	
91-58-7	2-Chloronaphthalene	ND	270	ug/kg	
106-47-8	4-Chloroaniline	ND	550	ug/kg	
86-74-8	Carbazole	ND	110	ug/kg	
218-01-9	Chrysene	ND	110	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	270	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	270	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	270	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-3	Date Sampled:	08/24/16
Lab Sample ID:	MC47506-10	Date Received:	08/25/16
Matrix:	SO - Soil	Percent Solids:	90.9
Method:	SW846 8270D SW846 3546		
Project:	424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	270	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	550	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	550	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	550	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	ug/kg	
132-64-9	Dibenzofuran	ND	110	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	270	ug/kg	
117-84-0	Di-n-octyl phthalate ^a	ND	270	ug/kg	
84-66-2	Diethyl phthalate	ND	270	ug/kg	
131-11-3	Dimethyl phthalate	ND	270	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	270	ug/kg	
206-44-0	Fluoranthene	ND	110	ug/kg	
86-73-7	Fluorene	ND	110	ug/kg	
118-74-1	Hexachlorobenzene	ND	270	ug/kg	
87-68-3	Hexachlorobutadiene	ND	270	ug/kg	
77-47-4	Hexachlorocyclopentadiene ^a	ND	550	ug/kg	
67-72-1	Hexachloroethane	ND	270	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	270	ug/kg	
78-59-1	Isophorone	ND	270	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	ug/kg	
88-74-4	2-Nitroaniline	ND	550	ug/kg	
99-09-2	3-Nitroaniline	ND	550	ug/kg	
100-01-6	4-Nitroaniline	ND	550	ug/kg	
91-20-3	Naphthalene	ND	110	ug/kg	
98-95-3	Nitrobenzene	ND	270	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	270	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	270	ug/kg	
82-68-8	Pentachloronitrobenzene	ND	550	ug/kg	
85-01-8	Phenanthrene	ND	110	ug/kg	
129-00-0	Pyrene	ND	110	ug/kg	
110-86-1	Pyridine	ND	550	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	550	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	270	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	85%		25-109%
4165-62-2	Phenol-d5	91%		29-113%
118-79-6	2,4,6-Tribromophenol	90%		20-141%
4165-60-0	Nitrobenzene-d5	88%		27-115%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-3		Date Sampled: 08/24/16
Lab Sample ID: MC47506-10		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 90.9
Method: SW846 8270D SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

4.19
4

ABN RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	84%		34-118%
1718-51-0	Terphenyl-d14	82%		42-139%

(a) Continuing Calibration outside of acceptance criteria. Reporting Limit Response verified by low-level standard.

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-3		Date Sampled: 08/24/16
Lab Sample ID: MC47506-10		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 90.9
Method: CT-ETPH 7/06 SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IR2600.D	1	08/30/16	MD	08/28/16	OP48556	GIR178
Run #2							

	Initial Weight	Final Volume
Run #1	15.2 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-ETPH (C9-C36)	ND	18	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	76%		50-137%	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.19
4

Report of Analysis

Client Sample ID: GP-3		Date Sampled: 08/24/16
Lab Sample ID: MC47506-10		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 90.9
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	2.0	0.87	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Barium	26.0	4.3	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Cadmium	< 0.35	0.35	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Chromium	4.6	0.87	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Lead	11.9	0.87	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Mercury	0.034	0.034	mg/kg	1	08/31/16	08/31/16 EAL	SW846 7471B ²	SW846 7471B ⁴
Selenium	< 0.87	0.87	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Silver	< 0.43	0.43	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³

- (1) Instrument QC Batch: MA19418
- (2) Instrument QC Batch: MA19431
- (3) Prep QC Batch: MP26696
- (4) Prep QC Batch: MP26718

RL = Reporting Limit

4.19
4

Report of Analysis

Client Sample ID: GP-3		Date Sampled: 08/24/16
Lab Sample ID: MC47506-10A		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 90.9
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

4.20
4

Metals Analysis, SPLP Leachate SW846 1312

Analyte	Result	MCL	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 0.010	0.010		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Barium	< 0.50	0.50		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Cadmium	< 0.0040	0.0040		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Chromium	< 0.010	0.010		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Lead	0.017	0.010		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Mercury	< 0.00020	0.00020		mg/l	1	08/30/16	08/31/16 EAL	SW846 7470A ²	SW846 7470A ⁴
Selenium	< 0.025	0.025		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Silver	< 0.0050	0.0050		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³

- (1) Instrument QC Batch: MA19425
- (2) Instrument QC Batch: MA19426
- (3) Prep QC Batch: MP26708
- (4) Prep QC Batch: MP26713

RL = Reporting Limit
MCL = Maximum Contamination Level (not available)

Report of Analysis

Client Sample ID: GP-2		Date Sampled: 08/24/16
Lab Sample ID: MC47506-11		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 89.3
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M80598.D	1	08/29/16	KP	n/a	n/a	MSM2884
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	4.48 g	5.0 ml
Run #2		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone ^a	40.4	12	ug/kg	
107-13-1	Acrylonitrile	ND	31	ug/kg	
71-43-2	Benzene	ND	0.62	ug/kg	
108-86-1	Bromobenzene	ND	6.2	ug/kg	
75-27-4	Bromodichloromethane	ND	2.5	ug/kg	
75-25-2	Bromoform	ND	2.5	ug/kg	
74-83-9	Bromomethane	ND	2.5	ug/kg	
78-93-3	2-Butanone (MEK)	ND	25	ug/kg	
104-51-8	n-Butylbenzene	ND	6.2	ug/kg	
135-98-8	sec-Butylbenzene	ND	6.2	ug/kg	
98-06-6	tert-Butylbenzene	ND	6.2	ug/kg	
75-15-0	Carbon disulfide	ND	6.2	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.5	ug/kg	
108-90-7	Chlorobenzene	ND	2.5	ug/kg	
75-00-3	Chloroethane	ND	6.2	ug/kg	
67-66-3	Chloroform	ND	2.5	ug/kg	
74-87-3	Chloromethane	ND	6.2	ug/kg	
95-49-8	o-Chlorotoluene	ND	6.2	ug/kg	
106-43-4	p-Chlorotoluene	ND	6.2	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	6.2	ug/kg	
124-48-1	Dibromochloromethane	ND	2.5	ug/kg	
106-93-4	1,2-Dibromoethane	ND	2.5	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	2.5	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	2.5	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	2.5	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	2.5	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.5	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.5	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.5	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.5	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.5	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.5	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-2	Date Sampled:	08/24/16
Lab Sample ID:	MC47506-11	Date Received:	08/25/16
Matrix:	SO - Soil	Percent Solids:	89.3
Method:	SW846 8260C		
Project:	424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	6.2	ug/kg	
594-20-7	2,2-Dichloropropane	ND	6.2	ug/kg	
563-58-6	1,1-Dichloropropene	ND	6.2	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.5	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.5	ug/kg	
100-41-4	Ethylbenzene	ND	2.5	ug/kg	
76-13-1	Freon 113	ND	6.2	ug/kg	
87-68-3	Hexachlorobutadiene	ND	6.2	ug/kg	
591-78-6	2-Hexanone	ND	12	ug/kg	
98-82-8	Isopropylbenzene	ND	6.2	ug/kg	
99-87-6	p-Isopropyltoluene	ND	6.2	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.5	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	6.2	ug/kg	
74-95-3	Methylene bromide	ND	6.2	ug/kg	
75-09-2	Methylene chloride	ND	2.5	ug/kg	
91-20-3	Naphthalene	ND	6.2	ug/kg	
103-65-1	n-Propylbenzene	ND	6.2	ug/kg	
100-42-5	Styrene	ND	6.2	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	6.2	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.5	ug/kg	
127-18-4	Tetrachloroethene	ND	2.5	ug/kg	
109-99-9	Tetrahydrofuran	ND	12	ug/kg	
108-88-3	Toluene	ND	6.2	ug/kg	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	6.2	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	6.2	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	6.2	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.5	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.5	ug/kg	
79-01-6	Trichloroethene	ND	2.5	ug/kg	
75-69-4	Trichlorofluoromethane	ND	2.5	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	6.2	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	6.2	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	6.2	ug/kg	
75-01-4	Vinyl chloride	ND	2.5	ug/kg	
	m,p-Xylene	ND	2.5	ug/kg	
95-47-6	o-Xylene	ND	2.5	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		65-141%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-2		Date Sampled: 08/24/16
Lab Sample ID: MC47506-11		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 89.3
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

4.21
4

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	101%		65-129%
460-00-4	4-Bromofluorobenzene	108%		63-137%

(a) Initial Calibration Verification outside of acceptance criteria. Sample result may be biased high.

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-2		Date Sampled: 08/24/16
Lab Sample ID: MC47506-11		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 89.3
Method: SW846 8270D SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X12363.D	1	08/30/16	AA	08/28/16	OP48552	MSX413
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.0 g	1.0 ml
Run #2		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
95-57-8	2-Chlorophenol	ND	280	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	560	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	560	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	560	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	560	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	560	ug/kg	
95-48-7	2-Methylphenol	ND	560	ug/kg	
106-44-5	4-Methylphenol	ND	560	ug/kg	
88-75-5	2-Nitrophenol	ND	560	ug/kg	
100-02-7	4-Nitrophenol	ND	560	ug/kg	
87-86-5	Pentachlorophenol	ND	560	ug/kg	
108-95-2	Phenol	ND	280	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	560	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	560	ug/kg	
83-32-9	Acenaphthene	ND	110	ug/kg	
208-96-8	Acenaphthylene	ND	110	ug/kg	
62-53-3	Aniline	ND	560	ug/kg	
120-12-7	Anthracene	ND	110	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	ug/kg	
50-32-8	Benzo(a)pyrene	ND	280	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	280	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	280	ug/kg	
91-58-7	2-Chloronaphthalene	ND	280	ug/kg	
106-47-8	4-Chloroaniline	ND	560	ug/kg	
86-74-8	Carbazole	ND	110	ug/kg	
218-01-9	Chrysene	ND	110	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	280	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	280	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	280	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-2		Date Sampled: 08/24/16
Lab Sample ID: MC47506-11		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 89.3
Method: SW846 8270D SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	280	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	560	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	560	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	560	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	ug/kg	
132-64-9	Dibenzofuran	ND	110	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	280	ug/kg	
117-84-0	Di-n-octyl phthalate ^a	ND	280	ug/kg	
84-66-2	Diethyl phthalate	ND	280	ug/kg	
131-11-3	Dimethyl phthalate	ND	280	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	280	ug/kg	
206-44-0	Fluoranthene	ND	110	ug/kg	
86-73-7	Fluorene	ND	110	ug/kg	
118-74-1	Hexachlorobenzene	ND	280	ug/kg	
87-68-3	Hexachlorobutadiene	ND	280	ug/kg	
77-47-4	Hexachlorocyclopentadiene ^a	ND	560	ug/kg	
67-72-1	Hexachloroethane	ND	280	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	280	ug/kg	
78-59-1	Isophorone	ND	280	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	ug/kg	
88-74-4	2-Nitroaniline	ND	560	ug/kg	
99-09-2	3-Nitroaniline	ND	560	ug/kg	
100-01-6	4-Nitroaniline	ND	560	ug/kg	
91-20-3	Naphthalene	ND	110	ug/kg	
98-95-3	Nitrobenzene	ND	280	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	280	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	280	ug/kg	
82-68-8	Pentachloronitrobenzene	ND	560	ug/kg	
85-01-8	Phenanthrene	ND	110	ug/kg	
129-00-0	Pyrene	ND	110	ug/kg	
110-86-1	Pyridine	ND	560	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	560	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	280	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	86%		25-109%
4165-62-2	Phenol-d5	95%		29-113%
118-79-6	2,4,6-Tribromophenol	96%		20-141%
4165-60-0	Nitrobenzene-d5	86%		27-115%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-2		Date Sampled: 08/24/16
Lab Sample ID: MC47506-11		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 89.3
Method: SW846 8270D SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

4.21
4

ABN RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	85%		34-118%
1718-51-0	Terphenyl-d14	94%		42-139%

(a) Continuing Calibration outside of acceptance criteria. Reporting Limit Response verified by low-level standard.

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-2	Date Sampled: 08/24/16
Lab Sample ID: MC47506-11	Date Received: 08/25/16
Matrix: SO - Soil	Percent Solids: 89.3
Method: CT-ETPH 7/06 SW846 3546	
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IR2601.D	1	08/30/16	MD	08/28/16	OP48556	GIR178
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.0 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-ETPH (C9-C36)	ND	19	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	71%		50-137%	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.21
4

Report of Analysis

Client Sample ID: GP-2		Date Sampled: 08/24/16
Lab Sample ID: MC47506-11		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 89.3
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	2.3	0.90	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Barium	51.0	4.5	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Cadmium	< 0.36	0.36	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Chromium	12.0	0.90	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Lead	20.1	0.90	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Mercury	0.037	0.033	mg/kg	1	08/31/16	08/31/16 EAL	SW846 7471B ²	SW846 7471B ⁴
Selenium	< 0.90	0.90	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Silver	< 0.45	0.45	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³

- (1) Instrument QC Batch: MA19418
- (2) Instrument QC Batch: MA19431
- (3) Prep QC Batch: MP26696
- (4) Prep QC Batch: MP26718

RL = Reporting Limit

4.21
4

Report of Analysis

Client Sample ID: GP-2		Date Sampled: 08/24/16
Lab Sample ID: MC47506-11A		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 89.3
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

4.22
4

Metals Analysis, SPLP Leachate SW846 1312

Analyte	Result	MCL	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 0.010	0.010		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Barium	< 0.50	0.50		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Cadmium	< 0.0040	0.0040		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Chromium	< 0.010	0.010		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Lead	< 0.010	0.010		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Mercury	< 0.00020	0.00020		mg/l	1	08/30/16	08/31/16 EAL	SW846 7470A ²	SW846 7470A ⁴
Selenium	< 0.025	0.025		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Silver	< 0.0050	0.0050		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³

- (1) Instrument QC Batch: MA19425
- (2) Instrument QC Batch: MA19426
- (3) Prep QC Batch: MP26708
- (4) Prep QC Batch: MP26713

RL = Reporting Limit
MCL = Maximum Contamination Level (not available)

Report of Analysis

Client Sample ID: GP-1		Date Sampled: 08/24/16
Lab Sample ID: MC47506-12		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 87.6
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M80614.D	1	08/30/16	KP	n/a	n/a	MSM2885
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	5.89 g	5.0 ml
Run #2		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone ^a	19.6	9.7	ug/kg	
107-13-1	Acrylonitrile	ND	24	ug/kg	
71-43-2	Benzene	ND	0.48	ug/kg	
108-86-1	Bromobenzene	ND	4.8	ug/kg	
75-27-4	Bromodichloromethane	ND	1.9	ug/kg	
75-25-2	Bromoform	ND	1.9	ug/kg	
74-83-9	Bromomethane	ND	1.9	ug/kg	
78-93-3	2-Butanone (MEK)	ND	19	ug/kg	
104-51-8	n-Butylbenzene	ND	4.8	ug/kg	
135-98-8	sec-Butylbenzene	ND	4.8	ug/kg	
98-06-6	tert-Butylbenzene	ND	4.8	ug/kg	
75-15-0	Carbon disulfide	ND	4.8	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.9	ug/kg	
108-90-7	Chlorobenzene	ND	1.9	ug/kg	
75-00-3	Chloroethane	ND	4.8	ug/kg	
67-66-3	Chloroform	ND	1.9	ug/kg	
74-87-3	Chloromethane	ND	4.8	ug/kg	
95-49-8	o-Chlorotoluene	ND	4.8	ug/kg	
106-43-4	p-Chlorotoluene	ND	4.8	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	4.8	ug/kg	
124-48-1	Dibromochloromethane	ND	1.9	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.9	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.9	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.9	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.9	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	1.9	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.9	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.9	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.9	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.9	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.9	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.9	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-1		Date Sampled: 08/24/16
Lab Sample ID: MC47506-12		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 87.6
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	4.8	ug/kg	
594-20-7	2,2-Dichloropropane	ND	4.8	ug/kg	
563-58-6	1,1-Dichloropropene	ND	4.8	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.9	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.9	ug/kg	
100-41-4	Ethylbenzene	ND	1.9	ug/kg	
76-13-1	Freon 113	ND	4.8	ug/kg	
87-68-3	Hexachlorobutadiene	ND	4.8	ug/kg	
591-78-6	2-Hexanone	ND	9.7	ug/kg	
98-82-8	Isopropylbenzene	ND	4.8	ug/kg	
99-87-6	p-Isopropyltoluene	ND	4.8	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.9	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.8	ug/kg	
74-95-3	Methylene bromide	ND	4.8	ug/kg	
75-09-2	Methylene chloride	ND	1.9	ug/kg	
91-20-3	Naphthalene	ND	4.8	ug/kg	
103-65-1	n-Propylbenzene	ND	4.8	ug/kg	
100-42-5	Styrene	ND	4.8	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	4.8	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.9	ug/kg	
127-18-4	Tetrachloroethene	ND	1.9	ug/kg	
109-99-9	Tetrahydrofuran	ND	9.7	ug/kg	
108-88-3	Toluene	ND	4.8	ug/kg	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	4.8	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	4.8	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	4.8	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	1.9	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	1.9	ug/kg	
79-01-6	Trichloroethene	ND	1.9	ug/kg	
75-69-4	Trichlorofluoromethane	ND	1.9	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	4.8	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	4.8	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	4.8	ug/kg	
75-01-4	Vinyl chloride	ND	1.9	ug/kg	
	m,p-Xylene	ND	1.9	ug/kg	
95-47-6	o-Xylene	ND	1.9	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	109%		65-141%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-1		Date Sampled: 08/24/16
Lab Sample ID: MC47506-12		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 87.6
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

4.23
4

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	103%		65-129%
460-00-4	4-Bromofluorobenzene	107%		63-137%

(a) Initial Calibration Verification outside of acceptance criteria. Sample result may be biased high.

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-1		Date Sampled: 08/24/16
Lab Sample ID: MC47506-12		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 87.6
Method: SW846 8270D SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X12364.D	1	08/30/16	AA	08/28/16	OP48552	MSX413
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.4 g	1.0 ml
Run #2		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
95-57-8	2-Chlorophenol	ND	280	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	560	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	560	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	560	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	560	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	560	ug/kg	
95-48-7	2-Methylphenol	ND	560	ug/kg	
106-44-5	4-Methylphenol	ND	560	ug/kg	
88-75-5	2-Nitrophenol	ND	560	ug/kg	
100-02-7	4-Nitrophenol	ND	560	ug/kg	
87-86-5	Pentachlorophenol	ND	560	ug/kg	
108-95-2	Phenol	ND	280	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	560	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	560	ug/kg	
83-32-9	Acenaphthene	ND	110	ug/kg	
208-96-8	Acenaphthylene	ND	110	ug/kg	
62-53-3	Aniline	ND	560	ug/kg	
120-12-7	Anthracene	ND	110	ug/kg	
56-55-3	Benzo(a)anthracene	123	110	ug/kg	
50-32-8	Benzo(a)pyrene	ND	280	ug/kg	
205-99-2	Benzo(b)fluoranthene	120	110	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	280	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	280	ug/kg	
91-58-7	2-Chloronaphthalene	ND	280	ug/kg	
106-47-8	4-Chloroaniline	ND	560	ug/kg	
86-74-8	Carbazole	ND	110	ug/kg	
218-01-9	Chrysene	134	110	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	280	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	280	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	280	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-1	Date Sampled:	08/24/16
Lab Sample ID:	MC47506-12	Date Received:	08/25/16
Matrix:	SO - Soil	Percent Solids:	87.6
Method:	SW846 8270D SW846 3546		
Project:	424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	280	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	560	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	560	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	560	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	ug/kg	
132-64-9	Dibenzofuran	ND	110	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	280	ug/kg	
117-84-0	Di-n-octyl phthalate ^a	ND	280	ug/kg	
84-66-2	Diethyl phthalate	ND	280	ug/kg	
131-11-3	Dimethyl phthalate	ND	280	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	280	ug/kg	
206-44-0	Fluoranthene	281	110	ug/kg	
86-73-7	Fluorene	ND	110	ug/kg	
118-74-1	Hexachlorobenzene	ND	280	ug/kg	
87-68-3	Hexachlorobutadiene	ND	280	ug/kg	
77-47-4	Hexachlorocyclopentadiene ^a	ND	560	ug/kg	
67-72-1	Hexachloroethane	ND	280	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	280	ug/kg	
78-59-1	Isophorone	ND	280	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	ug/kg	
88-74-4	2-Nitroaniline	ND	560	ug/kg	
99-09-2	3-Nitroaniline	ND	560	ug/kg	
100-01-6	4-Nitroaniline	ND	560	ug/kg	
91-20-3	Naphthalene	ND	110	ug/kg	
98-95-3	Nitrobenzene	ND	280	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	280	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	280	ug/kg	
82-68-8	Pentachloronitrobenzene	ND	560	ug/kg	
85-01-8	Phenanthrene	ND	110	ug/kg	
129-00-0	Pyrene	183	110	ug/kg	
110-86-1	Pyridine	ND	560	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	560	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	280	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	89%		25-109%
4165-62-2	Phenol-d5	92%		29-113%
118-79-6	2,4,6-Tribromophenol	77%		20-141%
4165-60-0	Nitrobenzene-d5	81%		27-115%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-1		Date Sampled: 08/24/16
Lab Sample ID: MC47506-12		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 87.6
Method: SW846 8270D SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

4.23
4

ABN RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	84%		34-118%
1718-51-0	Terphenyl-d14	82%		42-139%

(a) Continuing Calibration outside of acceptance criteria. Reporting Limit Response verified by low-level standard.

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-1		Date Sampled: 08/24/16
Lab Sample ID: MC47506-12		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 87.6
Method: CT-ETPH 7/06 SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IR2602.D	1	08/30/16	MD	08/28/16	OP48556	GIR178
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-ETPH (C9-C36)	ND	19	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	72%		50-137%	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.23
4

Report of Analysis

Client Sample ID: GP-1		Date Sampled: 08/24/16
Lab Sample ID: MC47506-12		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 87.6
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	4.2	0.83	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Barium	69.7	4.2	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Cadmium	< 0.33	0.33	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Chromium	21.3	0.83	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Lead	86.1	0.83	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Mercury	0.22	0.036	mg/kg	1	08/31/16	08/31/16 EAL	SW846 7471B ²	SW846 7471B ⁴
Selenium	< 0.83	0.83	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Silver	1.6	0.42	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³

- (1) Instrument QC Batch: MA19418
- (2) Instrument QC Batch: MA19431
- (3) Prep QC Batch: MP26696
- (4) Prep QC Batch: MP26718

RL = Reporting Limit

4.23
4

Report of Analysis

Client Sample ID: GP-1 Lab Sample ID: MC47506-12A Matrix: SO - Soil Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT	Date Sampled: 08/24/16 Date Received: 08/25/16 Percent Solids: 87.6
---	--

Metals Analysis, SPLP Leachate SW846 1312

Analyte	Result	MCL	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 0.010	0.010		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Barium	< 0.50	0.50		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Cadmium	< 0.0040	0.0040		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Chromium	< 0.010	0.010		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Lead	0.012	0.010		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Mercury	< 0.00020	0.00020		mg/l	1	08/30/16	08/31/16 EAL	SW846 7470A ²	SW846 7470A ⁴
Selenium	< 0.025	0.025		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Silver	< 0.0050	0.0050		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³

- (1) Instrument QC Batch: MA19425
- (2) Instrument QC Batch: MA19426
- (3) Prep QC Batch: MP26708
- (4) Prep QC Batch: MP26713

RL = Reporting Limit
 MCL = Maximum Contamination Level (not available)

4.24
4

Report of Analysis

Client Sample ID: GP-9		Date Sampled: 08/24/16
Lab Sample ID: MC47506-13		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 88.8
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M80600.D	1	08/29/16	KP	n/a	n/a	MSM2884
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	6.64 g	5.0 ml
Run #2		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone ^a	45.0	8.5	ug/kg	
107-13-1	Acrylonitrile	ND	21	ug/kg	
71-43-2	Benzene	ND	0.42	ug/kg	
108-86-1	Bromobenzene	ND	4.2	ug/kg	
75-27-4	Bromodichloromethane	ND	1.7	ug/kg	
75-25-2	Bromoform	ND	1.7	ug/kg	
74-83-9	Bromomethane	ND	1.7	ug/kg	
78-93-3	2-Butanone (MEK)	ND	17	ug/kg	
104-51-8	n-Butylbenzene	ND	4.2	ug/kg	
135-98-8	sec-Butylbenzene	ND	4.2	ug/kg	
98-06-6	tert-Butylbenzene	ND	4.2	ug/kg	
75-15-0	Carbon disulfide	ND	4.2	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.7	ug/kg	
108-90-7	Chlorobenzene	ND	1.7	ug/kg	
75-00-3	Chloroethane	ND	4.2	ug/kg	
67-66-3	Chloroform	11.6	1.7	ug/kg	
74-87-3	Chloromethane	ND	4.2	ug/kg	
95-49-8	o-Chlorotoluene	ND	4.2	ug/kg	
106-43-4	p-Chlorotoluene	ND	4.2	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	4.2	ug/kg	
124-48-1	Dibromochloromethane	ND	1.7	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.7	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.7	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.7	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.7	ug/kg	
75-71-8	Dichlorodifluoromethane	3.0	1.7	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.7	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.7	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.7	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.7	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.7	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.7	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-9		Date Sampled: 08/24/16
Lab Sample ID: MC47506-13		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 88.8
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	4.2	ug/kg	
594-20-7	2,2-Dichloropropane	ND	4.2	ug/kg	
563-58-6	1,1-Dichloropropene	ND	4.2	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.7	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.7	ug/kg	
100-41-4	Ethylbenzene	ND	1.7	ug/kg	
76-13-1	Freon 113	ND	4.2	ug/kg	
87-68-3	Hexachlorobutadiene	ND	4.2	ug/kg	
591-78-6	2-Hexanone	ND	8.5	ug/kg	
98-82-8	Isopropylbenzene	ND	4.2	ug/kg	
99-87-6	p-Isopropyltoluene	ND	4.2	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.7	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.2	ug/kg	
74-95-3	Methylene bromide	ND	4.2	ug/kg	
75-09-2	Methylene chloride	ND	1.7	ug/kg	
91-20-3	Naphthalene	ND	4.2	ug/kg	
103-65-1	n-Propylbenzene	ND	4.2	ug/kg	
100-42-5	Styrene	ND	4.2	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	4.2	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.7	ug/kg	
127-18-4	Tetrachloroethene	ND	1.7	ug/kg	
109-99-9	Tetrahydrofuran	ND	8.5	ug/kg	
108-88-3	Toluene	ND	4.2	ug/kg	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	4.2	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	4.2	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	4.2	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	1.7	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	1.7	ug/kg	
79-01-6	Trichloroethene	ND	1.7	ug/kg	
75-69-4	Trichlorofluoromethane	ND	1.7	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	4.2	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	4.2	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	4.2	ug/kg	
75-01-4	Vinyl chloride	ND	1.7	ug/kg	
	m,p-Xylene	ND	1.7	ug/kg	
95-47-6	o-Xylene	ND	1.7	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		65-141%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-9		Date Sampled: 08/24/16
Lab Sample ID: MC47506-13		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 88.8
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

4.25
4

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	101%		65-129%
460-00-4	4-Bromofluorobenzene	114%		63-137%

(a) Initial Calibration Verification outside of acceptance criteria. Sample result may be biased high.

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-9		
Lab Sample ID: MC47506-13		Date Sampled: 08/24/16
Matrix: SO - Soil		Date Received: 08/25/16
Method: SW846 8270D SW846 3546		Percent Solids: 88.8
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X12365.D	1	08/31/16	AA	08/28/16	OP48552	MSX413
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.5 g	1.0 ml
Run #2		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
95-57-8	2-Chlorophenol	ND	270	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	550	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	550	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	550	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	550	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	550	ug/kg	
95-48-7	2-Methylphenol	ND	550	ug/kg	
106-44-5	4-Methylphenol	ND	550	ug/kg	
88-75-5	2-Nitrophenol	ND	550	ug/kg	
100-02-7	4-Nitrophenol	ND	550	ug/kg	
87-86-5	Pentachlorophenol	ND	550	ug/kg	
108-95-2	Phenol	ND	270	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	550	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	550	ug/kg	
83-32-9	Acenaphthene	ND	110	ug/kg	
208-96-8	Acenaphthylene	ND	110	ug/kg	
62-53-3	Aniline	ND	550	ug/kg	
120-12-7	Anthracene	ND	110	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	ug/kg	
50-32-8	Benzo(a)pyrene	ND	270	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	270	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	270	ug/kg	
91-58-7	2-Chloronaphthalene	ND	270	ug/kg	
106-47-8	4-Chloroaniline	ND	550	ug/kg	
86-74-8	Carbazole	ND	110	ug/kg	
218-01-9	Chrysene	ND	110	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	270	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	270	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	270	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-9	Date Sampled:	08/24/16
Lab Sample ID:	MC47506-13	Date Received:	08/25/16
Matrix:	SO - Soil	Percent Solids:	88.8
Method:	SW846 8270D SW846 3546		
Project:	424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	270	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	550	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	550	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	550	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	ug/kg	
132-64-9	Dibenzofuran	ND	110	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	270	ug/kg	
117-84-0	Di-n-octyl phthalate ^a	ND	270	ug/kg	
84-66-2	Diethyl phthalate	ND	270	ug/kg	
131-11-3	Dimethyl phthalate	ND	270	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	270	ug/kg	
206-44-0	Fluoranthene	179	110	ug/kg	
86-73-7	Fluorene	ND	110	ug/kg	
118-74-1	Hexachlorobenzene	ND	270	ug/kg	
87-68-3	Hexachlorobutadiene	ND	270	ug/kg	
77-47-4	Hexachlorocyclopentadiene ^a	ND	550	ug/kg	
67-72-1	Hexachloroethane	ND	270	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	270	ug/kg	
78-59-1	Isophorone	ND	270	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	ug/kg	
88-74-4	2-Nitroaniline	ND	550	ug/kg	
99-09-2	3-Nitroaniline	ND	550	ug/kg	
100-01-6	4-Nitroaniline	ND	550	ug/kg	
91-20-3	Naphthalene	ND	110	ug/kg	
98-95-3	Nitrobenzene	ND	270	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	270	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	270	ug/kg	
82-68-8	Pentachloronitrobenzene	ND	550	ug/kg	
85-01-8	Phenanthrene	ND	110	ug/kg	
129-00-0	Pyrene	117	110	ug/kg	
110-86-1	Pyridine	ND	550	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	550	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	270	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	97%		25-109%
4165-62-2	Phenol-d5	99%		29-113%
118-79-6	2,4,6-Tribromophenol	97%		20-141%
4165-60-0	Nitrobenzene-d5	91%		27-115%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-9		Date Sampled: 08/24/16
Lab Sample ID: MC47506-13		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 88.8
Method: SW846 8270D SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

4.25
4

ABN RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	89%		34-118%
1718-51-0	Terphenyl-d14	92%		42-139%

(a) Continuing Calibration outside of acceptance criteria. Reporting Limit Response verified by low-level standard.

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-9		Date Sampled: 08/24/16
Lab Sample ID: MC47506-13		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 88.8
Method: CT-ETPH 7/06 SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IR2605.D	1	08/30/16	MD	08/28/16	OP48556	GIR178
Run #2							

	Initial Weight	Final Volume
Run #1	15.4 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-ETPH (C9-C36)	ND	18	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	72%		50-137%	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.25
4

Report of Analysis

Client Sample ID: GP-9		Date Sampled: 08/24/16
Lab Sample ID: MC47506-13		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 88.8
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analized By	Method	Prep Method
Arsenic	1.5	0.83	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Barium	31.8	4.1	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Cadmium	< 0.33	0.33	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Chromium	7.2	0.83	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Lead	28.9	0.83	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Mercury	0.039	0.035	mg/kg	1	08/31/16	08/31/16 EAL	SW846 7471B ²	SW846 7471B ⁴
Selenium	< 0.83	0.83	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Silver	< 0.41	0.41	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³

- (1) Instrument QC Batch: MA19418
- (2) Instrument QC Batch: MA19431
- (3) Prep QC Batch: MP26696
- (4) Prep QC Batch: MP26718

RL = Reporting Limit

4.25
4

Report of Analysis

Client Sample ID: GP-9		Date Sampled: 08/24/16
Lab Sample ID: MC47506-13A		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 88.8
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Metals Analysis, SPLP Leachate SW846 1312

Analyte	Result	MCL	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 0.010	0.010		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Barium	< 0.50	0.50		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Cadmium	< 0.0040	0.0040		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Chromium	< 0.010	0.010		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Lead	0.012	0.010		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Mercury	< 0.00020	0.00020		mg/l	1	08/30/16	08/31/16 EAL	SW846 7470A ²	SW846 7470A ⁴
Selenium	< 0.025	0.025		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Silver	< 0.0050	0.0050		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³

- (1) Instrument QC Batch: MA19425
- (2) Instrument QC Batch: MA19426
- (3) Prep QC Batch: MP26708
- (4) Prep QC Batch: MP26713

RL = Reporting Limit
MCL = Maximum Contamination Level (not available)

4.26
4

Report of Analysis

Client Sample ID: GP-15		Date Sampled: 08/24/16
Lab Sample ID: MC47506-14		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 92.4
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M80601.D	1	08/29/16	KP	n/a	n/a	MSM2884
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	6.12 g	5.0 ml
Run #2		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone ^a	52.1	8.8	ug/kg	
107-13-1	Acrylonitrile	ND	22	ug/kg	
71-43-2	Benzene	ND	0.44	ug/kg	
108-86-1	Bromobenzene	ND	4.4	ug/kg	
75-27-4	Bromodichloromethane	ND	1.8	ug/kg	
75-25-2	Bromoform	ND	1.8	ug/kg	
74-83-9	Bromomethane	ND	1.8	ug/kg	
78-93-3	2-Butanone (MEK)	ND	18	ug/kg	
104-51-8	n-Butylbenzene	ND	4.4	ug/kg	
135-98-8	sec-Butylbenzene	ND	4.4	ug/kg	
98-06-6	tert-Butylbenzene	ND	4.4	ug/kg	
75-15-0	Carbon disulfide	ND	4.4	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.8	ug/kg	
108-90-7	Chlorobenzene	ND	1.8	ug/kg	
75-00-3	Chloroethane	ND	4.4	ug/kg	
67-66-3	Chloroform	10.7	1.8	ug/kg	
74-87-3	Chloromethane	ND	4.4	ug/kg	
95-49-8	o-Chlorotoluene	ND	4.4	ug/kg	
106-43-4	p-Chlorotoluene	ND	4.4	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	4.4	ug/kg	
124-48-1	Dibromochloromethane	ND	1.8	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.8	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.8	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.8	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.8	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	1.8	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.8	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.8	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.8	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.8	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.8	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.8	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-15	Date Sampled:	08/24/16
Lab Sample ID:	MC47506-14	Date Received:	08/25/16
Matrix:	SO - Soil	Percent Solids:	92.4
Method:	SW846 8260C		
Project:	424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	4.4	ug/kg	
594-20-7	2,2-Dichloropropane	ND	4.4	ug/kg	
563-58-6	1,1-Dichloropropene	ND	4.4	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.8	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.8	ug/kg	
100-41-4	Ethylbenzene	ND	1.8	ug/kg	
76-13-1	Freon 113	ND	4.4	ug/kg	
87-68-3	Hexachlorobutadiene	ND	4.4	ug/kg	
591-78-6	2-Hexanone	ND	8.8	ug/kg	
98-82-8	Isopropylbenzene	ND	4.4	ug/kg	
99-87-6	p-Isopropyltoluene	ND	4.4	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.8	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.4	ug/kg	
74-95-3	Methylene bromide	ND	4.4	ug/kg	
75-09-2	Methylene chloride	ND	1.8	ug/kg	
91-20-3	Naphthalene	ND	4.4	ug/kg	
103-65-1	n-Propylbenzene	ND	4.4	ug/kg	
100-42-5	Styrene	ND	4.4	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	4.4	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.8	ug/kg	
127-18-4	Tetrachloroethene	ND	1.8	ug/kg	
109-99-9	Tetrahydrofuran	ND	8.8	ug/kg	
108-88-3	Toluene	ND	4.4	ug/kg	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	4.4	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	4.4	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	4.4	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	1.8	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	1.8	ug/kg	
79-01-6	Trichloroethene	ND	1.8	ug/kg	
75-69-4	Trichlorofluoromethane	ND	1.8	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	4.4	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	4.4	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	4.4	ug/kg	
75-01-4	Vinyl chloride	ND	1.8	ug/kg	
	m,p-Xylene	ND	1.8	ug/kg	
95-47-6	o-Xylene	ND	1.8	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	109%		65-141%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-15		Date Sampled: 08/24/16
Lab Sample ID: MC47506-14		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 92.4
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

4.27
4

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	103%		65-129%
460-00-4	4-Bromofluorobenzene	124%		63-137%

(a) Initial Calibration Verification outside of acceptance criteria. Sample result may be biased high.

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-15		Date Sampled: 08/24/16
Lab Sample ID: MC47506-14		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 92.4
Method: SW846 8270D SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X12366.D	1	08/31/16	AA	08/28/16	OP48552	MSX413
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.8 g	1.0 ml
Run #2		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
95-57-8	2-Chlorophenol	ND	260	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	520	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	520	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	520	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	520	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	520	ug/kg	
95-48-7	2-Methylphenol	ND	520	ug/kg	
106-44-5	4-Methylphenol	ND	520	ug/kg	
88-75-5	2-Nitrophenol	ND	520	ug/kg	
100-02-7	4-Nitrophenol	ND	520	ug/kg	
87-86-5	Pentachlorophenol	ND	520	ug/kg	
108-95-2	Phenol	ND	260	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	520	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	520	ug/kg	
83-32-9	Acenaphthene	ND	100	ug/kg	
208-96-8	Acenaphthylene	ND	100	ug/kg	
62-53-3	Aniline	ND	520	ug/kg	
120-12-7	Anthracene	ND	100	ug/kg	
56-55-3	Benzo(a)anthracene	349	100	ug/kg	
50-32-8	Benzo(a)pyrene	388	260	ug/kg	
205-99-2	Benzo(b)fluoranthene	322	100	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	100	ug/kg	
207-08-9	Benzo(k)fluoranthene	295	100	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	260	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	260	ug/kg	
91-58-7	2-Chloronaphthalene	ND	260	ug/kg	
106-47-8	4-Chloroaniline	ND	520	ug/kg	
86-74-8	Carbazole	ND	100	ug/kg	
218-01-9	Chrysene	345	100	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	260	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	260	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	260	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-15		Date Sampled: 08/24/16
Lab Sample ID: MC47506-14		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 92.4
Method: SW846 8270D SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	260	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	520	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	520	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	520	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	100	ug/kg	
132-64-9	Dibenzofuran	ND	100	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	260	ug/kg	
117-84-0	Di-n-octyl phthalate ^a	ND	260	ug/kg	
84-66-2	Diethyl phthalate	ND	260	ug/kg	
131-11-3	Dimethyl phthalate	ND	260	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	260	ug/kg	
206-44-0	Fluoranthene	719	100	ug/kg	
86-73-7	Fluorene	ND	100	ug/kg	
118-74-1	Hexachlorobenzene	ND	260	ug/kg	
87-68-3	Hexachlorobutadiene	ND	260	ug/kg	
77-47-4	Hexachlorocyclopentadiene ^a	ND	520	ug/kg	
67-72-1	Hexachloroethane	ND	260	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	314	260	ug/kg	
78-59-1	Isophorone	ND	260	ug/kg	
91-57-6	2-Methylnaphthalene	ND	100	ug/kg	
88-74-4	2-Nitroaniline	ND	520	ug/kg	
99-09-2	3-Nitroaniline	ND	520	ug/kg	
100-01-6	4-Nitroaniline	ND	520	ug/kg	
91-20-3	Naphthalene	ND	100	ug/kg	
98-95-3	Nitrobenzene	ND	260	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	260	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	260	ug/kg	
82-68-8	Pentachloronitrobenzene	ND	520	ug/kg	
85-01-8	Phenanthrene	200	100	ug/kg	
129-00-0	Pyrene	570	100	ug/kg	
110-86-1	Pyridine	ND	520	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	520	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	260	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	103%		25-109%
4165-62-2	Phenol-d5	107%		29-113%
118-79-6	2,4,6-Tribromophenol	117%		20-141%
4165-60-0	Nitrobenzene-d5	96%		27-115%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-15		Date Sampled: 08/24/16
Lab Sample ID: MC47506-14		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 92.4
Method: SW846 8270D SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

4.27
4

ABN RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	98%		34-118%
1718-51-0	Terphenyl-d14	100%		42-139%

(a) Continuing Calibration outside of acceptance criteria. Reporting Limit Response verified by low-level standard.

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-15	Date Sampled: 08/24/16
Lab Sample ID: MC47506-14	Date Received: 08/25/16
Matrix: SO - Soil	Percent Solids: 92.4
Method: SW846 8082A SW846 3546	
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK61328.D	1	08/31/16	NK	08/28/16	OP48554	GBK1921
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	15.3 g	10.0 ml
Run #2		

CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	35	ug/kg	
11104-28-2	Aroclor 1221	ND	35	ug/kg	
11141-16-5	Aroclor 1232	ND	35	ug/kg	
53469-21-9	Aroclor 1242	ND	35	ug/kg	
12672-29-6	Aroclor 1248	ND	35	ug/kg	
11097-69-1	Aroclor 1254	ND	35	ug/kg	
11096-82-5	Aroclor 1260	ND	35	ug/kg	
37324-23-5	Aroclor 1262	ND	35	ug/kg	
11100-14-4	Aroclor 1268	ND	35	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	84%		25-145%
877-09-8	Tetrachloro-m-xylene	91%		25-145%
2051-24-3	Decachlorobiphenyl	94%		25-179%
2051-24-3	Decachlorobiphenyl	91%		25-179%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.27
4

Report of Analysis

Client Sample ID: GP-15		Date Sampled: 08/24/16
Lab Sample ID: MC47506-14		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 92.4
Method: CT-ETPH 7/06 SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IR2608.D	1	08/30/16	MD	08/28/16	OP48556	GIR178
Run #2							

	Initial Weight	Final Volume
Run #1	15.9 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-ETPH (C9-C36)	67.0	17	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	85%		50-137%	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.27
4

Report of Analysis

Client Sample ID: GP-15		Date Sampled: 08/24/16
Lab Sample ID: MC47506-14		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 92.4
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analized By	Method	Prep Method
Arsenic	1.8	0.88	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Barium	47.2	4.4	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Cadmium	< 0.35	0.35	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Chromium	9.2	0.88	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Lead	76.8	0.88	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Mercury	0.080	0.034	mg/kg	1	08/31/16	08/31/16 EAL	SW846 7471B ²	SW846 7471B ⁴
Selenium	< 0.88	0.88	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Silver	< 0.44	0.44	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³

- (1) Instrument QC Batch: MA19418
- (2) Instrument QC Batch: MA19431
- (3) Prep QC Batch: MP26696
- (4) Prep QC Batch: MP26718

RL = Reporting Limit

4.27
4

Report of Analysis

Client Sample ID: GP-15 Lab Sample ID: MC47506-14A Matrix: SO - Soil Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT	Date Sampled: 08/24/16 Date Received: 08/25/16 Percent Solids: 92.4
--	--

4.28
4

Metals Analysis, SPLP Leachate SW846 1312

Analyte	Result	MCL	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 0.010	0.010		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Barium	< 0.50	0.50		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Cadmium	< 0.0040	0.0040		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Chromium	< 0.010	0.010		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Lead	0.016	0.010		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Mercury	< 0.00020	0.00020		mg/l	1	08/30/16	08/31/16 EAL	SW846 7470A ²	SW846 7470A ⁴
Selenium	< 0.025	0.025		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Silver	< 0.0050	0.0050		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³

- (1) Instrument QC Batch: MA19425
- (2) Instrument QC Batch: MA19426
- (3) Prep QC Batch: MP26708
- (4) Prep QC Batch: MP26713

RL = Reporting Limit
MCL = Maximum Contamination Level (not available)

Report of Analysis

Client Sample ID: GP-12		Date Sampled: 08/24/16
Lab Sample ID: MC47506-15		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 94.2
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M80602.D	1	08/29/16	KP	n/a	n/a	MSM2884
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	4.35 g	5.0 ml
Run #2		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone ^a	66.2	12	ug/kg	
107-13-1	Acrylonitrile	ND	30	ug/kg	
71-43-2	Benzene	ND	0.61	ug/kg	
108-86-1	Bromobenzene	ND	6.1	ug/kg	
75-27-4	Bromodichloromethane	ND	2.4	ug/kg	
75-25-2	Bromoform	ND	2.4	ug/kg	
74-83-9	Bromomethane	ND	2.4	ug/kg	
78-93-3	2-Butanone (MEK)	ND	24	ug/kg	
104-51-8	n-Butylbenzene	ND	6.1	ug/kg	
135-98-8	sec-Butylbenzene	ND	6.1	ug/kg	
98-06-6	tert-Butylbenzene	ND	6.1	ug/kg	
75-15-0	Carbon disulfide	ND	6.1	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.4	ug/kg	
108-90-7	Chlorobenzene	ND	2.4	ug/kg	
75-00-3	Chloroethane	ND	6.1	ug/kg	
67-66-3	Chloroform	ND	2.4	ug/kg	
74-87-3	Chloromethane	ND	6.1	ug/kg	
95-49-8	o-Chlorotoluene	ND	6.1	ug/kg	
106-43-4	p-Chlorotoluene	ND	6.1	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	6.1	ug/kg	
124-48-1	Dibromochloromethane	ND	2.4	ug/kg	
106-93-4	1,2-Dibromoethane	ND	2.4	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	2.4	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	2.4	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	2.4	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	2.4	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.4	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.4	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.4	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.4	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.4	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.4	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-12		Date Sampled: 08/24/16
Lab Sample ID: MC47506-15		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 94.2
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	6.1	ug/kg	
594-20-7	2,2-Dichloropropane	ND	6.1	ug/kg	
563-58-6	1,1-Dichloropropene	ND	6.1	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.4	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.4	ug/kg	
100-41-4	Ethylbenzene	ND	2.4	ug/kg	
76-13-1	Freon 113	ND	6.1	ug/kg	
87-68-3	Hexachlorobutadiene	ND	6.1	ug/kg	
591-78-6	2-Hexanone	ND	12	ug/kg	
98-82-8	Isopropylbenzene	ND	6.1	ug/kg	
99-87-6	p-Isopropyltoluene	ND	6.1	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.4	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	6.1	ug/kg	
74-95-3	Methylene bromide	ND	6.1	ug/kg	
75-09-2	Methylene chloride	ND	2.4	ug/kg	
91-20-3	Naphthalene	ND	6.1	ug/kg	
103-65-1	n-Propylbenzene	ND	6.1	ug/kg	
100-42-5	Styrene	ND	6.1	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	6.1	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.4	ug/kg	
127-18-4	Tetrachloroethene	ND	2.4	ug/kg	
109-99-9	Tetrahydrofuran	ND	12	ug/kg	
108-88-3	Toluene	ND	6.1	ug/kg	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	6.1	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	6.1	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	6.1	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.4	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.4	ug/kg	
79-01-6	Trichloroethene	2.7	2.4	ug/kg	
75-69-4	Trichlorofluoromethane	ND	2.4	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	6.1	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	6.1	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	6.1	ug/kg	
75-01-4	Vinyl chloride	ND	2.4	ug/kg	
	m,p-Xylene	ND	2.4	ug/kg	
95-47-6	o-Xylene	ND	2.4	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	111%		65-141%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-12		Date Sampled: 08/24/16
Lab Sample ID: MC47506-15		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 94.2
Method: SW846 8260C		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

4.29
4

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	102%		65-129%
460-00-4	4-Bromofluorobenzene	115%		63-137%

(a) Initial Calibration Verification outside of acceptance criteria. Sample result may be biased high.

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-12		
Lab Sample ID: MC47506-15		Date Sampled: 08/24/16
Matrix: SO - Soil		Date Received: 08/25/16
Method: SW846 8270D SW846 3546		Percent Solids: 94.2
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W29663.D	1	08/29/16	MR	08/28/16	OP48551	MSW1195
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.9 g	1.0 ml
Run #2		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
95-57-8	2-Chlorophenol	ND	250	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	510	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	510	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	510	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	510	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	510	ug/kg	
95-48-7	2-Methylphenol	ND	510	ug/kg	
106-44-5	4-Methylphenol	ND	510	ug/kg	
88-75-5	2-Nitrophenol	ND	510	ug/kg	
100-02-7	4-Nitrophenol	ND	510	ug/kg	
87-86-5	Pentachlorophenol	ND	510	ug/kg	
108-95-2	Phenol	ND	250	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	510	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	510	ug/kg	
83-32-9	Acenaphthene	ND	100	ug/kg	
208-96-8	Acenaphthylene	ND	100	ug/kg	
62-53-3	Aniline	ND	510	ug/kg	
120-12-7	Anthracene	ND	100	ug/kg	
56-55-3	Benzo(a)anthracene	ND	100	ug/kg	
50-32-8	Benzo(a)pyrene	ND	250	ug/kg	
205-99-2	Benzo(b)fluoranthene	100	100	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	100	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	100	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	250	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	250	ug/kg	
91-58-7	2-Chloronaphthalene	ND	250	ug/kg	
106-47-8	4-Chloroaniline	ND	510	ug/kg	
86-74-8	Carbazole	ND	100	ug/kg	
218-01-9	Chrysene	ND	100	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	250	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	250	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	250	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-12	Date Sampled:	08/24/16
Lab Sample ID:	MC47506-15	Date Received:	08/25/16
Matrix:	SO - Soil	Percent Solids:	94.2
Method:	SW846 8270D SW846 3546		
Project:	424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	250	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	510	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	510	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	510	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	100	ug/kg	
132-64-9	Dibenzofuran	ND	100	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	250	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	250	ug/kg	
84-66-2	Diethyl phthalate	ND	250	ug/kg	
131-11-3	Dimethyl phthalate	ND	250	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	250	ug/kg	
206-44-0	Fluoranthene	105	100	ug/kg	
86-73-7	Fluorene	ND	100	ug/kg	
118-74-1	Hexachlorobenzene	ND	250	ug/kg	
87-68-3	Hexachlorobutadiene	ND	250	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	510	ug/kg	
67-72-1	Hexachloroethane	ND	250	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	250	ug/kg	
78-59-1	Isophorone	ND	250	ug/kg	
91-57-6	2-Methylnaphthalene	ND	100	ug/kg	
88-74-4	2-Nitroaniline	ND	510	ug/kg	
99-09-2	3-Nitroaniline	ND	510	ug/kg	
100-01-6	4-Nitroaniline	ND	510	ug/kg	
91-20-3	Naphthalene	ND	100	ug/kg	
98-95-3	Nitrobenzene	ND	250	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	250	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	250	ug/kg	
82-68-8	Pentachloronitrobenzene	ND	510	ug/kg	
85-01-8	Phenanthrene	ND	100	ug/kg	
129-00-0	Pyrene	123	100	ug/kg	
110-86-1	Pyridine	ND	510	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	510	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	250	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	77%		25-109%
4165-62-2	Phenol-d5	80%		29-113%
118-79-6	2,4,6-Tribromophenol	117%		20-141%
4165-60-0	Nitrobenzene-d5	85%		27-115%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-12		Date Sampled: 08/24/16
Lab Sample ID: MC47506-15		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 94.2
Method: SW846 8270D SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

4.29
4

ABN RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	87%		34-118%
1718-51-0	Terphenyl-d14	109%		42-139%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-12		Date Sampled: 08/24/16
Lab Sample ID: MC47506-15		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 94.2
Method: CT-ETPH 7/06 SW846 3546		
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IR2604.D	1	08/30/16	MD	08/28/16	OP48556	GIR178
Run #2							

	Initial Weight	Final Volume
Run #1	15.9 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-ETPH (C9-C36)	ND	17	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	80%		50-137%	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.29
4

Report of Analysis

Client Sample ID: GP-12		Date Sampled: 08/24/16
Lab Sample ID: MC47506-15		Date Received: 08/25/16
Matrix: SO - Soil		Percent Solids: 94.2
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analized By	Method	Prep Method
Arsenic	1.8	0.84	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Barium	40.8	4.2	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Cadmium	< 0.33	0.33	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Chromium	11.9	0.84	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Lead	21.7	0.84	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Mercury	< 0.034	0.034	mg/kg	1	08/31/16	08/31/16 EAL	SW846 7471B ²	SW846 7471B ⁴
Selenium	< 0.84	0.84	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³
Silver	< 0.42	0.42	mg/kg	1	08/26/16	08/29/16 EAL	SW846 6010C ¹	SW846 3050B ³

- (1) Instrument QC Batch: MA19418
- (2) Instrument QC Batch: MA19431
- (3) Prep QC Batch: MP26696
- (4) Prep QC Batch: MP26718

RL = Reporting Limit

4.29
4

Report of Analysis

Client Sample ID: GP-12 Lab Sample ID: MC47506-15A Matrix: SO - Soil Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT	Date Sampled: 08/24/16 Date Received: 08/25/16 Percent Solids: 94.2
--	--

4.30
4

Metals Analysis, SPLP Leachate SW846 1312

Analyte	Result	MCL	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 0.010	0.010		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Barium	< 0.50	0.50		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Cadmium	< 0.0040	0.0040		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Chromium	< 0.010	0.010		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Lead	< 0.010	0.010		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Mercury	< 0.00020	0.00020		mg/l	1	08/30/16	08/31/16 EAL	SW846 7470A ²	SW846 7470A ⁴
Selenium	< 0.025	0.025		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³
Silver	< 0.0050	0.0050		mg/l	1	08/30/16	08/30/16 EAL	SW846 6010C ¹	SW846 3010A ³

- (1) Instrument QC Batch: MA19425
- (2) Instrument QC Batch: MA19426
- (3) Prep QC Batch: MP26708
- (4) Prep QC Batch: MP26713

RL = Reporting Limit
MCL = Maximum Contamination Level (not available)

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- RCP Form
- Sample Tracking Chronicle
- QC Evaluation: CT RCP Limits



ACCUTEST

CHAIN OF CUSTODY

SGS Accutest of New England
50 D'Angelo Drive, Building One Marlborough, MA 01752
TEL: 508-481-6200 FAX: 508-481-7753
www.accutest.com

FED-EX Tracking #
Bottle Order Control #
SGS Accutest Quote # PM1-2016-228
SGS Accutest Job # MC47506

Client / Reporting Information: CDR Group Inc, 424 Chapel St. Phase II Env. Assess.
Project Information: 424 Chapel St., New Haven, CT
Requested Analysis: PCBs, SVOCs, ETPH, Total RCRA Metals, SRP, RCRA Disposal Mat.
Table with columns: Sample #, Field ID, Date, Time, Matrix, # of bottles, and various chemical analysis results.
Data Deliverable Information: Turnaround Time (Std. 10 Business Days), Approved By, Commercial "A" (Level 1), Commercial "B" (Level 2), FULLT1 (Level 3+4), CT RCP, MA MCP, RYASP Category A, NYASP Category B, State Forms, EDD Format, Other.
Sample Custody: Relinquished by Sampler, Date Time, Received By, Date Time, Relinquished By, Date Time, Received By, Date Time.

5.1 5

MC47506: Chain of Custody

Page 1 of 4



ACCUTEST

CHAIN OF CUSTODY

SGS Accutest of New England
50 D'Angelo Drive, Building One Marlborough, MA 01752
TEL: 508-481-6200 FAX: 508-481-7753
www.accutest.com

FED-EX Tracking #
Boise Order Control #
SGS Accutest Quote # PM1-2016-278
SGS Accutest Job # MC47506

Client/Reporting Information
Project Information
Requested Analysis (see TEST CODE sheet)
Matrix Codes
Company Name: CDR Group Inc.
Project Name: 424 Chapel St. Phase II Env. Assess
Street Address: 2060 Sikes Deane Hwy
City: Rocky Hill CT 06067
City: New Haven
Company Name:
Project Contact: Janewitherall@cdrgroup-inc.com
Project#: 0092-0531
Street Address:
Phone #: 860-563-3158
Client PO#: 19532.32
City: State: Zip:
Sampler(s) Name(s): Joseph Buchler
Phone #: 0036670697
Project Manager: Dave Stock
Attention: PCB#

Table with columns: Sample #, Field ID / Point of Collection, MECH/DI Val #, Date, Time, Sampled by, Matrix, # of bottles, HCl, NaOH, HNO3, H2SO4, NONE, DI Water, MESH, BNCORE, Burette. Includes rows for samples GP-9, GP-15, GP-12.

Data Deliverable Information
Turnaround Time (Business days)
Approved By (SGS Accutest PM): / Date:
Commercial "A" (Level 1)
Commercial "B" (Level 2)
FULLT1 (Level 3+4)
CT RCP
MA MCP
NYASP Category A
NYASP Category B
State Forms
EDD Format
Other

Sample Custody must be documented below each time samples change possession, including courier delivery.
Relinquished by: [Signature] Date/Time: 8/24/16 1500
Received By: [Signature]
Relinquished by: [Signature] Date/Time: 8/25/16 240
Received By: [Signature]

5.1
5

SGS Accutest Sample Receipt Summary

Job Number: MC47506

Client: CDR

Project: 424 CHAPEL

Date / Time Received: 8/25/2016 3:45:00 PM

Delivery Method: SGS Courier

Airbill #s:

Cooler Temps (Initial/Adjusted): #: (0.4/0.4); #1: (0.2/0.2);

Cooler Security

	<u>Y or N</u>			<u>Y or N</u>	
1. Custody Seals Present:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3. COC Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Custody Seals Intact:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4. Smp Dates/Time OK	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Cooler Temperature

	<u>Y or N</u>	
1. Temp criteria achieved:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Cooler temp verification:	IRGUN1	
3. Cooler media:	Ice (Bag)	
4. No. Coolers:	1	

Quality Control Preservation

	<u>Y</u>	<u>N</u>	<u>N/A</u>
1. Trip Blank present / cooler:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2. Trip Blank listed on COC:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3. Samples preserved properly:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4. VOCs headspace free:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments

-5: "GP-12C: COC indicates two (2) bisulfate vials, only one (1) was received.
 -12: "GP-1": One of the bisulfate vials labeled GP-1 has collection time 08:40, COC has 12:40.

Sample Integrity - Documentation

	<u>Y or N</u>	
1. Sample labels present on bottles:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Container labeling complete:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Sample container label / COC agree:	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Sample Integrity - Condition

	<u>Y or N</u>	
1. Sample rec'd within HT:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. All containers accounted for:	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Condition of sample:	Intact	

Sample Integrity - Instructions

	<u>Y</u>	<u>N</u>	<u>N/A</u>
1. Analysis requested is clear:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. Bottles received for unspecified tests	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3. Sufficient volume rec'd for analysis:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4. Compositing instructions clear:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Filtering instructions clear:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

5.1
5

MC47506: Chain of Custody

Page 3 of 4

Sample Receipt Summary - Problem Resolution

Job Number: MC47506

CSR: Jeremy Vienneau

Response Date: 9/1/2016

Response: The client confirmed the collection time of GP-1 was 12:40. See email in file.

5.1

5

MC47506: Chain of Custody

Page 4 of 4

**Reasonable Confidence Protocol
Laboratory Analysis
QA/QC Certification Form**

Laboratory Name: Accutest New England **Client:** CDR Maguire
Project Location: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT **Project Number:** 0092-0531
Sampling Date(s): 8/24/2016


Laboratory Sample ID(s): MC47506-1A, MC47506-2A, MC47506-3A, MC47506-4A, MC47506-5A, MC47506-6A, MC47506-7A, MC47506-8A, MC47506-9A, MC47506-10A, MC47506-11A, MC47506-12A, MC47506-13A, MC47506-14A, MC47506-15A, MC47506-1, MC47506-2, MC47506-3, MC47506-4, MC47506-5, MC47506-6, MC47506-7, MC47506-8, MC47506-9, MC47506-10, MC47506-11, MC47506-12, MC47506-13, MC47506-14, MC47506-15

Methods: Refer to case narrative.

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 <input checked="" type="checkbox"/> No <input type="checkbox"/>
1A	Where all the method specified preservation and holding time requirements met?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1B	VPH and EPH methods only: Was the VPH or EPH method conducted without significant modifications (See section 11.3 of respective methods)	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
3	Were samples received at an appropriate temperature (<6° C)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
4	Were all QA/QC performance criteria specified in the CTDEP Reasonable Confidence Protocol documents achieved?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
5	a) Were reporting limits specified or referenced on the chain-of-custody?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
	b) Were these reporting limits met?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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 <input type="checkbox"/> No <input checked="" type="checkbox"/>
7	Are project-specific matrix spikes and laboratory duplicates included in this data set?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

Note: 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".

I, the undersigned, attest under 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: Lab Director
Printed Name: H. (Brad) Madadian Date: 9/1/2016
Accutest New England

5.2
5

Internal Sample Tracking Chronicle

CDR Maguire

Job No: MC47506

424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
 Project No: 0092-0531

5.3
5

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC47506-1 Collected: 24-AUG-16 07:30 By: JB Received: 25-AUG-16 By: NT GP-4C						
MC47506-1	SM 2540G-97 MOD	29-AUG-16	VY			%SOL
MC47506-1	SW846 6010C	29-AUG-16 11:25	EAL	26-AUG-16 EM		AG, AS, BA, CD, CR, PB, SE
MC47506-1	SW846 8260C	29-AUG-16 15:57	KP			V8260RCP
MC47506-1	CT-ETPH 7/06	30-AUG-16 16:26	MD	28-AUG-16 AJ		BCTTPH
MC47506-1	SW846 8270D	30-AUG-16 19:05	AA	28-AUG-16 AJ		AB8270RCP
MC47506-1	SW846 8270D	31-AUG-16 12:26	AA	28-AUG-16 AJ		AB8270RCP
MC47506-1	SW846 7471B	31-AUG-16 16:03	EAL	31-AUG-16 EM		HG
MC47506-2 Collected: 24-AUG-16 08:30 By: JB Received: 25-AUG-16 By: NT GP-14C						
MC47506-2	SM 2540G-97 MOD	29-AUG-16	VY			%SOL
MC47506-2	SW846 6010C	29-AUG-16 11:30	EAL	26-AUG-16 EM		AG, AS, BA, CD, CR, PB, SE
MC47506-2	SW846 8260C	29-AUG-16 16:26	KP			V8260RCP
MC47506-2	SW846 8260C	30-AUG-16 13:40	KP			V8260RCP
MC47506-2	CT-ETPH 7/06	30-AUG-16 16:55	MD	28-AUG-16 AJ		BCTTPH
MC47506-2	SW846 8270D	30-AUG-16 19:30	AA	28-AUG-16 AJ		AB8270RCP
MC47506-2	SW846 8082A	31-AUG-16 02:05	NK	28-AUG-16 GD		P8082RCP
MC47506-2	SW846 8270D	31-AUG-16 12:51	AA	28-AUG-16 AJ		AB8270RCP
MC47506-2	SW846 7471B	31-AUG-16 16:05	EAL	31-AUG-16 EM		HG
MC47506-3 Collected: 24-AUG-16 09:30 By: JB Received: 25-AUG-16 By: NT GP-9C						
MC47506-3	SM 2540G-97 MOD	29-AUG-16	VY			%SOL
MC47506-3	SW846 6010C	29-AUG-16 11:35	EAL	26-AUG-16 EM		AG, AS, BA, CD, CR, PB, SE
MC47506-3	SW846 8260C	29-AUG-16 16:54	KP			V8260RCP
MC47506-3	CT-ETPH 7/06	30-AUG-16 17:24	MD	28-AUG-16 AJ		BCTTPH
MC47506-3	SW846 8270D	30-AUG-16 19:55	AA	28-AUG-16 AJ		AB8270RCP
MC47506-3	SW846 8270D	31-AUG-16 13:16	AA	28-AUG-16 AJ		AB8270RCP
MC47506-3	SW846 7471B	31-AUG-16 16:08	EAL	31-AUG-16 EM		HG
MC47506-4 Collected: 24-AUG-16 09:35 By: JB Received: 25-AUG-16 By: NT GP-15C						
MC47506-4	SM 2540G-97 MOD	29-AUG-16	VY			%SOL
MC47506-4	SW846 6010C	29-AUG-16 11:40	EAL	26-AUG-16 EM		AG, AS, BA, CD, CR, PB, SE

Internal Sample Tracking Chronicle

CDR Maguire

Job No: MC47506

424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
 Project No: 0092-0531

5.3
5

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC47506-4	SW846 8260C	29-AUG-16 17:22	KP			V8260RCP
MC47506-4	CT-ETPH 7/06	30-AUG-16 17:53	MD	28-AUG-16	AJ	BCTTPH
MC47506-4	SW846 8270D	30-AUG-16 20:20	AA	28-AUG-16	AJ	AB8270RCP
MC47506-4	SW846 8082A	31-AUG-16 02:20	NK	28-AUG-16	GD	P8082RCP
MC47506-4	SW846 8270D	31-AUG-16 13:42	AA	28-AUG-16	AJ	AB8270RCP
MC47506-4	SW846 7471B	31-AUG-16 16:11	EAL	31-AUG-16	EM	HG
MC47506-5 Collected: 24-AUG-16 10:00 By: JB Received: 25-AUG-16 By: NT GP-12C						
MC47506-5	SM 2540G-97 MOD	29-AUG-16	VY			%SOL
MC47506-5	SW846 6010C	29-AUG-16 11:45	EAL	26-AUG-16	EM	AG,AS,BA,CD,CR,PB,SE
MC47506-5	SW846 8260C	29-AUG-16 17:51	KP			V8260RCP
MC47506-5	CT-ETPH 7/06	30-AUG-16 18:22	MD	28-AUG-16	AJ	BCTTPH
MC47506-5	SW846 8270D	30-AUG-16 20:44	AA	28-AUG-16	AJ	AB8270RCP
MC47506-5	SW846 8270D	31-AUG-16 14:07	AA	28-AUG-16	AJ	AB8270RCP
MC47506-5	SW846 7471B	31-AUG-16 16:14	EAL	31-AUG-16	EM	HG
MC47506-6 Collected: 24-AUG-16 11:30 By: JB Received: 25-AUG-16 By: NT GP-13						
MC47506-6	SM 2540G-97 MOD	29-AUG-16	VY			%SOL
MC47506-6	SW846 6010C	29-AUG-16 11:50	EAL	26-AUG-16	EM	AG,AS,BA,CD,CR,PB,SE
MC47506-6	SW846 8260C	30-AUG-16 14:08	KP			V8260RCP
MC47506-6	SW846 8270D	30-AUG-16 21:09	AA	28-AUG-16	AJ	AB8270RCP
MC47506-6	CT-ETPH 7/06	30-AUG-16 23:11	MD	28-AUG-16	AJ	BCTTPH
MC47506-6	SW846 7471B	31-AUG-16 16:16	EAL	31-AUG-16	EM	HG
MC47506-7 Collected: 24-AUG-16 11:40 By: JB Received: 25-AUG-16 By: NT GP-4						
MC47506-7	SM 2540G-97 MOD	29-AUG-16	VY			%SOL
MC47506-7	SW846 6010C	29-AUG-16 11:55	EAL	26-AUG-16	EM	AG,AS,BA,CD,CR,PB,SE
MC47506-7	SW846 8260C	29-AUG-16 18:47	KP			V8260RCP
MC47506-7	CT-ETPH 7/06	30-AUG-16 23:40	MD	28-AUG-16	AJ	BCTTPH
MC47506-7	SW846 8270D	31-AUG-16 11:49	AA	28-AUG-16	AJ	AB8270RCP
MC47506-7	SW846 7471B	31-AUG-16 16:19	EAL	31-AUG-16	EM	HG

Internal Sample Tracking Chronicle

CDR Maguire

Job No: MC47506

424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
 Project No: 0092-0531

5.3
5

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
---------------	--------	----------	----	---------	----	------------

MC47506-8 Collected: 24-AUG-16 12:00 By: JB Received: 25-AUG-16 By: NT
 GP-14

MC47506-8 SM 2540G-97 MOD		29-AUG-16	VY			%SOL
MC47506-8 SW846 6010C		29-AUG-16 12:00	EAL	26-AUG-16 EM		AG, AS, BA, CD, CR, PB, SE
MC47506-8 SW846 8260C		29-AUG-16 19:15	KP			V8260RCP
MC47506-8 CT-ETPH 7/06		30-AUG-16 21:45	MD	28-AUG-16 AJ		BCTTPH
MC47506-8 SW846 8270D		30-AUG-16 21:59	AA	28-AUG-16 AJ		AB8270RCP
MC47506-8 SW846 8082A		31-AUG-16 02:52	NK	28-AUG-16 GD		P8082RCP
MC47506-8 SW846 7471B		31-AUG-16 16:22	EAL	31-AUG-16 EM		HG

MC47506-9 Collected: 24-AUG-16 12:15 By: JB Received: 25-AUG-16 By: NT
 GP-5

MC47506-9 SM 2540G-97 MOD		29-AUG-16	VY			%SOL
MC47506-9 SW846 6010C		29-AUG-16 12:14	EAL	26-AUG-16 EM		AG, AS, BA, CD, CR, PB, SE
MC47506-9 SW846 8260C		29-AUG-16 20:01	TB			V8260RCP
MC47506-9 CT-ETPH 7/06		30-AUG-16 22:14	MD	28-AUG-16 AJ		BCTTPH
MC47506-9 SW846 8270D		30-AUG-16 22:23	AA	28-AUG-16 AJ		AB8270RCP
MC47506-9 SW846 7471B		31-AUG-16 16:24	EAL	31-AUG-16 EM		HG

MC47506-10 Collected: 24-AUG-16 12:20 By: JB Received: 25-AUG-16 By: NT
 GP-3

MC47506-10 SM 2540G-97 MOD		29-AUG-16	VY			%SOL
MC47506-10 SW846 6010C		29-AUG-16 12:19	EAL	26-AUG-16 EM		AG, AS, BA, CD, CR, PB, SE
MC47506-10 SW846 8260C		29-AUG-16 19:42	KP			V8260RCP
MC47506-10 CT-ETPH 7/06		30-AUG-16 18:51	MD	28-AUG-16 AJ		BCTTPH
MC47506-10 SW846 8270D		30-AUG-16 22:48	AA	28-AUG-16 AJ		AB8270RCP
MC47506-10 SW846 7471B		31-AUG-16 16:27	EAL	31-AUG-16 EM		HG

MC47506-11 Collected: 24-AUG-16 12:25 By: JB Received: 25-AUG-16 By: NT
 GP-2

MC47506-11 SM 2540G-97 MOD		29-AUG-16	VY			%SOL
MC47506-11 SW846 6010C		29-AUG-16 12:24	EAL	26-AUG-16 EM		AG, AS, BA, CD, CR, PB, SE
MC47506-11 SW846 8260C		29-AUG-16 20:10	KP			V8260RCP
MC47506-11 CT-ETPH 7/06		30-AUG-16 19:21	MD	28-AUG-16 AJ		BCTTPH
MC47506-11 SW846 8270D		30-AUG-16 23:12	AA	28-AUG-16 AJ		AB8270RCP

Internal Sample Tracking Chronicle

CDR Maguire

Job No: MC47506

424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
 Project No: 0092-0531

5.3
5

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC47506-1	ISW846 7471B	31-AUG-16 16:35	EAL	31-AUG-16 EM		HG
MC47506-12 Collected: 24-AUG-16 12:40 By: JB Received: 25-AUG-16 By: NT GP-1						
MC47506-12	SM 2540G-97 MOD	29-AUG-16	VY			% SOL
MC47506-12	SW846 6010C	29-AUG-16 12:29	EAL	26-AUG-16 EM		AG, AS, BA, CD, CR, PB, SE
MC47506-12	SW846 8260C	30-AUG-16 14:36	KP			V8260RCP
MC47506-12	CT-ETPH 7/06	30-AUG-16 19:49	MD	28-AUG-16 AJ		BCTTPH
MC47506-12	SW846 8270D	30-AUG-16 23:37	AA	28-AUG-16 AJ		AB8270RCP
MC47506-12	SW846 7471B	31-AUG-16 16:38	EAL	31-AUG-16 EM		HG
MC47506-13 Collected: 24-AUG-16 13:00 By: JB Received: 25-AUG-16 By: NT GP-9						
MC47506-13	SM 2540G-97 MOD	29-AUG-16	VY			% SOL
MC47506-13	SW846 6010C	29-AUG-16 12:34	EAL	26-AUG-16 EM		AG, AS, BA, CD, CR, PB, SE
MC47506-13	SW846 8260C	29-AUG-16 21:06	KP			V8260RCP
MC47506-13	CT-ETPH 7/06	30-AUG-16 21:16	MD	28-AUG-16 AJ		BCTTPH
MC47506-13	SW846 8270D	31-AUG-16 00:01	AA	28-AUG-16 AJ		AB8270RCP
MC47506-13	SW846 7471B	31-AUG-16 16:40	EAL	31-AUG-16 EM		HG
MC47506-14 Collected: 24-AUG-16 13:15 By: JB Received: 25-AUG-16 By: NT GP-15						
MC47506-14	SM 2540G-97 MOD	29-AUG-16	VY			% SOL
MC47506-14	SW846 6010C	29-AUG-16 10:39	EAL	26-AUG-16 EM		AG, AS, BA, CD, CR, PB, SE
MC47506-14	SW846 8260C	29-AUG-16 21:34	KP			V8260RCP
MC47506-14	CT-ETPH 7/06	30-AUG-16 22:42	MD	28-AUG-16 AJ		BCTTPH
MC47506-14	SW846 8270D	31-AUG-16 00:26	AA	28-AUG-16 AJ		AB8270RCP
MC47506-14	SW846 8082A	31-AUG-16 03:08	NK	28-AUG-16 GD		P8082RCP
MC47506-14	SW846 7471B	31-AUG-16 15:45	EAL	31-AUG-16 EM		HG
MC47506-15 Collected: 24-AUG-16 13:20 By: JB Received: 25-AUG-16 By: NT GP-12						
MC47506-15	SM 2540G-97 MOD	29-AUG-16	VY			% SOL
MC47506-15	SW846 6010C	29-AUG-16 12:39	EAL	26-AUG-16 EM		AG, AS, BA, CD, CR, PB, SE
MC47506-15	SW846 8270D	29-AUG-16 20:33	MR	28-AUG-16 AJ		AB8270RCP
MC47506-15	SW846 8260C	29-AUG-16 22:01	KP			V8260RCP

Internal Sample Tracking Chronicle

CDR Maguire

Job No: MC47506

424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
 Project No: 0092-0531

5.3
5

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC47506-1	CT-ETPH 7/06	30-AUG-16 20:47	MD	28-AUG-16 AJ		BCTTPH
MC47506-1	SW846 7471B	31-AUG-16 16:43	EAL	31-AUG-16 EM		HG
MC47506-1 Collected: 24-AUG-16 07:30 By: JB Received: 25-AUG-16 By: NT GP-4C						
MC47506-1	SW846 6010C	30-AUG-16 20:23	EAL	30-AUG-16 EM		EAG,EAS,EBA,ECD,ECR,EPB,ESE
MC47506-1	SW846 7470A	31-AUG-16 16:04	EAL	30-AUG-16 EM		EHG
MC47506-2 Collected: 24-AUG-16 08:30 By: JB Received: 25-AUG-16 By: NT GP-14C						
MC47506-2	SW846 6010C	30-AUG-16 20:33	EAL	30-AUG-16 EM		EAG,EAS,EBA,ECD,ECR,EPB,ESE
MC47506-2	SW846 7470A	31-AUG-16 16:24	EAL	30-AUG-16 EM		EHG
MC47506-3 Collected: 24-AUG-16 09:30 By: JB Received: 25-AUG-16 By: NT GP-9C						
MC47506-3	SW846 6010C	30-AUG-16 20:38	EAL	30-AUG-16 EM		EAG,EAS,EBA,ECD,ECR,EPB,ESE
MC47506-3	SW846 7470A	31-AUG-16 16:27	EAL	30-AUG-16 EM		EHG
MC47506-4 Collected: 24-AUG-16 09:35 By: JB Received: 25-AUG-16 By: NT GP-15C						
MC47506-4	SW846 6010C	30-AUG-16 20:53	EAL	30-AUG-16 EM		EAG,EAS,EBA,ECD,ECR,EPB,ESE
MC47506-4	SW846 7470A	31-AUG-16 16:29	EAL	30-AUG-16 EM		EHG
MC47506-5 Collected: 24-AUG-16 10:00 By: JB Received: 25-AUG-16 By: NT GP-12C						
MC47506-5	SW846 6010C	30-AUG-16 20:58	EAL	30-AUG-16 EM		EAG,EAS,EBA,ECD,ECR,EPB,ESE
MC47506-5	SW846 7470A	31-AUG-16 16:31	EAL	30-AUG-16 EM		EHG
MC47506-6 Collected: 24-AUG-16 11:30 By: JB Received: 25-AUG-16 By: NT GP-13						
MC47506-6	SW846 6010C	30-AUG-16 21:03	EAL	30-AUG-16 EM		EAG,EAS,EBA,ECD,ECR,EPB,ESE
MC47506-6	SW846 7470A	31-AUG-16 16:33	EAL	30-AUG-16 EM		EHG

Internal Sample Tracking Chronicle

CDR Maguire

Job No: MC47506

424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
 Project No: 0092-0531

5.3
5

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
---------------	--------	----------	----	---------	----	------------

MC47506-7A Collected: 24-AUG-16 11:40 By: JB Received: 25-AUG-16 By: NT
 GP-4

MC47506-7A SW846 6010C 30-AUG-16 21:08 EAL 30-AUG-16 EM EAG,EAS,EBA,ECD,ECR,EPB,ESE
 MC47506-7A SW846 7470A 31-AUG-16 16:36 EAL 30-AUG-16 EM EHG

MC47506-8A Collected: 24-AUG-16 12:00 By: JB Received: 25-AUG-16 By: NT
 GP-14

MC47506-8A SW846 6010C 30-AUG-16 21:13 EAL 30-AUG-16 EM EAG,EAS,EBA,ECD,ECR,EPB,ESE
 MC47506-8A SW846 7470A 31-AUG-16 16:38 EAL 30-AUG-16 EM EHG

MC47506-9A Collected: 24-AUG-16 12:15 By: JB Received: 25-AUG-16 By: NT
 GP-5

MC47506-9A SW846 6010C 30-AUG-16 21:18 EAL 30-AUG-16 EM EAG,EAS,EBA,ECD,ECR,EPB,ESE
 MC47506-9A SW846 7470A 31-AUG-16 16:45 EAL 30-AUG-16 EM EHG

MC47506-10A Collected: 24-AUG-16 12:20 By: JB Received: 25-AUG-16 By: NT
 GP-3

MC47506-10A SW846 6010C 30-AUG-16 21:23 EAL 30-AUG-16 EM EAG,EAS,EBA,ECD,ECR,EPB,ESE
 MC47506-10A SW846 7470A 31-AUG-16 16:06 EAL 30-AUG-16 EM EHG

MC47506-11A Collected: 24-AUG-16 12:25 By: JB Received: 25-AUG-16 By: NT
 GP-2

MC47506-11A SW846 6010C 30-AUG-16 21:28 EAL 30-AUG-16 EM EAG,EAS,EBA,ECD,ECR,EPB,ESE
 MC47506-11A SW846 7470A 31-AUG-16 16:08 EAL 30-AUG-16 EM EHG

MC47506-12A Collected: 24-AUG-16 12:40 By: JB Received: 25-AUG-16 By: NT
 GP-1

MC47506-12A SW846 6010C 30-AUG-16 21:33 EAL 30-AUG-16 EM EAG,EAS,EBA,ECD,ECR,EPB,ESE
 MC47506-12A SW846 7470A 31-AUG-16 16:11 EAL 30-AUG-16 EM EHG

MC47506-13A Collected: 24-AUG-16 13:00 By: JB Received: 25-AUG-16 By: NT
 GP-9

Internal Sample Tracking Chronicle

CDR Maguire

Job No: MC47506

424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
 Project No: 0092-0531

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC47506-13	SW846 6010C	30-AUG-16 21:38	EAL	30-AUG-16 EM		EAG,EAS,EBA,ECD,ECR,EPB,ESE
MC47506-13	SW846 7470A	31-AUG-16 16:18	EAL	30-AUG-16 EM		EHG
MC47506-14 Collected: 24-AUG-16 13:15 By: JB Received: 25-AUG-16 By: NT GP-15						
MC47506-14	SW846 6010C	30-AUG-16 21:52	EAL	30-AUG-16 EM		EAG,EAS,EBA,ECD,ECR,EPB,ESE
MC47506-14	SW846 7470A	31-AUG-16 16:20	EAL	30-AUG-16 EM		EHG
MC47506-15 Collected: 24-AUG-16 13:20 By: JB Received: 25-AUG-16 By: NT GP-12						
MC47506-15	SW846 6010C	30-AUG-16 21:57	EAL	30-AUG-16 EM		EAG,EAS,EBA,ECD,ECR,EPB,ESE
MC47506-15	SW846 7470A	31-AUG-16 16:22	EAL	30-AUG-16 EM		EHG

5.3
5

QC Evaluation: CT RCP Limits

Job Number: MC47506
Account: CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
Collected: 08/24/16

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
MSL4337	SW846 8260C						
MSL4337-BS	67-64-1	Acetone	BSP	REC	122	%	70-130
MSL4337-BS	107-13-1	Acrylonitrile	BSP	REC	114	%	70-130
MSL4337-BS	71-43-2	Benzene	BSP	REC	99	%	70-130
MSL4337-BS	108-86-1	Bromobenzene	BSP	REC	93	%	70-130
MSL4337-BS	75-27-4	Bromodichloromethane	BSP	REC	100	%	70-130
MSL4337-BS	75-25-2	Bromoform	BSP	REC	97	%	70-130
MSL4337-BS	74-83-9	Bromomethane	BSP	REC	134	%	70-130
MSL4337-BS	78-93-3	2-Butanone (MEK)	BSP	REC	108	%	70-130
MSL4337-BS	104-51-8	n-Butylbenzene	BSP	REC	106	%	70-130
MSL4337-BS	135-98-8	sec-Butylbenzene	BSP	REC	92	%	70-130
MSL4337-BS	98-06-6	tert-Butylbenzene	BSP	REC	92	%	70-130
MSL4337-BS	75-15-0	Carbon disulfide	BSP	REC	107	%	70-130
MSL4337-BS	56-23-5	Carbon tetrachloride	BSP	REC	107	%	70-130
MSL4337-BS	108-90-7	Chlorobenzene	BSP	REC	91	%	70-130
MSL4337-BS	75-00-3	Chloroethane	BSP	REC	125	%	70-130
MSL4337-BS	67-66-3	Chloroform	BSP	REC	107	%	70-130
MSL4337-BS	74-87-3	Chloromethane	BSP	REC	101	%	70-130
MSL4337-BS	95-49-8	o-Chlorotoluene	BSP	REC	97	%	70-130
MSL4337-BS	106-43-4	p-Chlorotoluene	BSP	REC	97	%	70-130
MSL4337-BS	96-12-8	1,2-Dibromo-3-chloropropane	BSP	REC	92	%	70-130
MSL4337-BS	124-48-1	Dibromochloromethane	BSP	REC	94	%	70-130
MSL4337-BS	106-93-4	1,2-Dibromoethane	BSP	REC	94	%	70-130
MSL4337-BS	95-50-1	1,2-Dichlorobenzene	BSP	REC	96	%	70-130
MSL4337-BS	541-73-1	1,3-Dichlorobenzene	BSP	REC	96	%	70-130
MSL4337-BS	106-46-7	1,4-Dichlorobenzene	BSP	REC	94	%	70-130
MSL4337-BS	75-71-8	Dichlorodifluoromethane	BSP	REC	123	%	70-130
MSL4337-BS	75-34-3	1,1-Dichloroethane	BSP	REC	104	%	70-130
MSL4337-BS	107-06-2	1,2-Dichloroethane	BSP	REC	109	%	70-130
MSL4337-BS	75-35-4	1,1-Dichloroethene	BSP	REC	108	%	70-130
MSL4337-BS	156-59-2	cis-1,2-Dichloroethene	BSP	REC	112	%	70-130
MSL4337-BS	156-60-5	trans-1,2-Dichloroethene	BSP	REC	98	%	70-130
MSL4337-BS	78-87-5	1,2-Dichloropropane	BSP	REC	98	%	70-130
MSL4337-BS	142-28-9	1,3-Dichloropropane	BSP	REC	98	%	70-130
MSL4337-BS	594-20-7	2,2-Dichloropropane	BSP	REC	123	%	70-130
MSL4337-BS	563-58-6	1,1-Dichloropropene	BSP	REC	106	%	70-130
MSL4337-BS	10061-01-5	cis-1,3-Dichloropropene	BSP	REC	95	%	70-130
MSL4337-BS	10061-02-6	trans-1,3-Dichloropropene	BSP	REC	98	%	70-130
MSL4337-BS	100-41-4	Ethylbenzene	BSP	REC	92	%	70-130
MSL4337-BS	76-13-1	Freon 113	BSP	REC	108	%	70-130
MSL4337-BS	87-68-3	Hexachlorobutadiene	BSP	REC	86	%	70-130
MSL4337-BS	591-78-6	2-Hexanone	BSP	REC	144	%	70-130
MSL4337-BS	98-82-8	Isopropylbenzene	BSP	REC	88	%	70-130

* Sample used for QC is not from job MC47506

QC Evaluation: CT RCP Limits

Job Number: MC47506
Account: CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
Collected: 08/24/16

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
MSL4337-BS	99-87-6	p-Isopropyltoluene	BSP	REC	96	%	70-130
MSL4337-BS	1634-04-4	Methyl Tert Butyl Ether	BSP	REC	120	%	70-130
MSL4337-BS	108-10-1	4-Methyl-2-pentanone (MIBK)	BSP	REC	112	%	70-130
MSL4337-BS	74-95-3	Methylene bromide	BSP	REC	98	%	70-130
MSL4337-BS	75-09-2	Methylene chloride	BSP	REC	104	%	70-130
MSL4337-BS	91-20-3	Naphthalene	BSP	REC	79	%	70-130
MSL4337-BS	103-65-1	n-Propylbenzene	BSP	REC	96	%	70-130
MSL4337-BS	100-42-5	Styrene	BSP	REC	92	%	70-130
MSL4337-BS	630-20-6	1,1,1,2-Tetrachloroethane	BSP	REC	94	%	70-130
MSL4337-BS	79-34-5	1,1,2,2-Tetrachloroethane	BSP	REC	92	%	70-130
MSL4337-BS	127-18-4	Tetrachloroethene	BSP	REC	90	%	70-130
MSL4337-BS	109-99-9	Tetrahydrofuran	BSP	REC	108	%	70-130
MSL4337-BS	108-88-3	Toluene	BSP	REC	99	%	70-130
MSL4337-BS	110-57-6	Trans-1,4-Dichloro-2-Butene	BSP	REC	109	%	70-130
MSL4337-BS	87-61-6	1,2,3-Trichlorobenzene	BSP	REC	78	%	70-130
MSL4337-BS	120-82-1	1,2,4-Trichlorobenzene	BSP	REC	85	%	70-130
MSL4337-BS	71-55-6	1,1,1-Trichloroethane	BSP	REC	109	%	70-130
MSL4337-BS	79-00-5	1,1,2-Trichloroethane	BSP	REC	96	%	70-130
MSL4337-BS	79-01-6	Trichloroethene	BSP	REC	96	%	70-130
MSL4337-BS	75-69-4	Trichlorofluoromethane	BSP	REC	104	%	70-130
MSL4337-BS	96-18-4	1,2,3-Trichloropropane	BSP	REC	92	%	70-130
MSL4337-BS	95-63-6	1,2,4-Trimethylbenzene	BSP	REC	99	%	70-130
MSL4337-BS	108-67-8	1,3,5-Trimethylbenzene	BSP	REC	103	%	70-130
MSL4337-BS	75-01-4	Vinyl chloride	BSP	REC	82	%	70-130
MSL4337-BS		m,p-Xylene	BSP	REC	90	%	70-130
MSL4337-BS	95-47-6	o-Xylene	BSP	REC	91	%	70-130
MSL4337-BS	1868-53-7	Dibromofluoromethane	BSP	SURR	109	%	70-130
MSL4337-BS	2037-26-5	Toluene-D8	BSP	SURR	98	%	70-130
MSL4337-BS	460-00-4	4-Bromofluorobenzene	BSP	SURR	96	%	70-130
MSL4337-MB	1868-53-7	Dibromofluoromethane	MB	SURR	130	%	70-130
MSL4337-MB	2037-26-5	Toluene-D8	MB	SURR	100	%	70-130
MSL4337-MB	460-00-4	4-Bromofluorobenzene	MB	SURR	112	%	70-130
MC47506-9	1868-53-7	Dibromofluoromethane	SAMP	SURR	119	%	70-130
MC47506-9	2037-26-5	Toluene-D8	SAMP	SURR	98	%	70-130
MC47506-9	460-00-4	4-Bromofluorobenzene	SAMP	SURR	103	%	70-130
MSM2884	SW846 8260C						
MSM2884-BS	67-64-1	Acetone	BSP	REC	122	%	70-130
MSM2884-BS	107-13-1	Acrylonitrile	BSP	REC	108	%	70-130
MSM2884-BS	71-43-2	Benzene	BSP	REC	102	%	70-130
MSM2884-BS	108-86-1	Bromobenzene	BSP	REC	105	%	70-130
MSM2884-BS	75-27-4	Bromodichloromethane	BSP	REC	105	%	70-130
MSM2884-BS	75-25-2	Bromoform	BSP	REC	105	%	70-130
MSM2884-BS	74-83-9	Bromomethane	BSP	REC	116	%	70-130

* Sample used for QC is not from job MC47506

5.4
5

QC Evaluation: CT RCP Limits

Job Number: MC47506
Account: CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
Collected: 08/24/16

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
MSM2884-BS	78-93-3	2-Butanone (MEK)	BSP	REC	111	%	70-130
MSM2884-BS	104-51-8	n-Butylbenzene	BSP	REC	110	%	70-130
MSM2884-BS	135-98-8	sec-Butylbenzene	BSP	REC	110	%	70-130
MSM2884-BS	98-06-6	tert-Butylbenzene	BSP	REC	112	%	70-130
MSM2884-BS	75-15-0	Carbon disulfide	BSP	REC	73	%	70-130
MSM2884-BS	56-23-5	Carbon tetrachloride	BSP	REC	104	%	70-130
MSM2884-BS	108-90-7	Chlorobenzene	BSP	REC	104	%	70-130
MSM2884-BS	75-00-3	Chloroethane	BSP	REC	114	%	70-130
MSM2884-BS	67-66-3	Chloroform	BSP	REC	106	%	70-130
MSM2884-BS	74-87-3	Chloromethane	BSP	REC	123	%	70-130
MSM2884-BS	95-49-8	o-Chlorotoluene	BSP	REC	106	%	70-130
MSM2884-BS	106-43-4	p-Chlorotoluene	BSP	REC	105	%	70-130
MSM2884-BS	96-12-8	1,2-Dibromo-3-chloropropane	BSP	REC	101	%	70-130
MSM2884-BS	124-48-1	Dibromochloromethane	BSP	REC	103	%	70-130
MSM2884-BS	106-93-4	1,2-Dibromoethane	BSP	REC	105	%	70-130
MSM2884-BS	95-50-1	1,2-Dichlorobenzene	BSP	REC	104	%	70-130
MSM2884-BS	541-73-1	1,3-Dichlorobenzene	BSP	REC	103	%	70-130
MSM2884-BS	106-46-7	1,4-Dichlorobenzene	BSP	REC	102	%	70-130
MSM2884-BS	75-71-8	Dichlorodifluoromethane	BSP	REC	115	%	70-130
MSM2884-BS	75-34-3	1,1-Dichloroethane	BSP	REC	100	%	70-130
MSM2884-BS	107-06-2	1,2-Dichloroethane	BSP	REC	103	%	70-130
MSM2884-BS	75-35-4	1,1-Dichloroethene	BSP	REC	91	%	70-130
MSM2884-BS	156-59-2	cis-1,2-Dichloroethene	BSP	REC	110	%	70-130
MSM2884-BS	156-60-5	trans-1,2-Dichloroethene	BSP	REC	91	%	70-130
MSM2884-BS	78-87-5	1,2-Dichloropropane	BSP	REC	107	%	70-130
MSM2884-BS	142-28-9	1,3-Dichloropropane	BSP	REC	112	%	70-130
MSM2884-BS	594-20-7	2,2-Dichloropropane	BSP	REC	104	%	70-130
MSM2884-BS	563-58-6	1,1-Dichloropropene	BSP	REC	102	%	70-130
MSM2884-BS	10061-01-5	cis-1,3-Dichloropropene	BSP	REC	105	%	70-130
MSM2884-BS	10061-02-6	trans-1,3-Dichloropropene	BSP	REC	99	%	70-130
MSM2884-BS	100-41-4	Ethylbenzene	BSP	REC	108	%	70-130
MSM2884-BS	76-13-1	Freon 113	BSP	REC	96	%	70-130
MSM2884-BS	87-68-3	Hexachlorobutadiene	BSP	REC	105	%	70-130
MSM2884-BS	591-78-6	2-Hexanone	BSP	REC	125	%	70-130
MSM2884-BS	98-82-8	Isopropylbenzene	BSP	REC	107	%	70-130
MSM2884-BS	99-87-6	p-Isopropyltoluene	BSP	REC	111	%	70-130
MSM2884-BS	1634-04-4	Methyl Tert Butyl Ether	BSP	REC	107	%	70-130
MSM2884-BS	108-10-1	4-Methyl-2-pentanone (MIBK)	BSP	REC	118	%	70-130
MSM2884-BS	74-95-3	Methylene bromide	BSP	REC	103	%	70-130
MSM2884-BS	75-09-2	Methylene chloride	BSP	REC	95	%	70-130
MSM2884-BS	91-20-3	Naphthalene	BSP	REC	99	%	70-130
MSM2884-BS	103-65-1	n-Propylbenzene	BSP	REC	104	%	70-130
MSM2884-BS	100-42-5	Styrene	BSP	REC	109	%	70-130
MSM2884-BS	630-20-6	1,1,1,2-Tetrachloroethane	BSP	REC	111	%	70-130
MSM2884-BS	79-34-5	1,1,2,2-Tetrachloroethane	BSP	REC	107	%	70-130

* Sample used for QC is not from job MC47506

QC Evaluation: CT RCP Limits

Job Number: MC47506
Account: CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
Collected: 08/24/16

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
MSM2884-BS	127-18-4	Tetrachloroethene	BSP	REC	100	%	70-130
MSM2884-BS	109-99-9	Tetrahydrofuran	BSP	REC	99	%	70-130
MSM2884-BS	108-88-3	Toluene	BSP	REC	104	%	70-130
MSM2884-BS	110-57-6	Trans-1,4-Dichloro-2-Butene	BSP	REC	106	%	70-130
MSM2884-BS	87-61-6	1,2,3-Trichlorobenzene	BSP	REC	106	%	70-130
MSM2884-BS	120-82-1	1,2,4-Trichlorobenzene	BSP	REC	102	%	70-130
MSM2884-BS	71-55-6	1,1,1-Trichloroethane	BSP	REC	108	%	70-130
MSM2884-BS	79-00-5	1,1,2-Trichloroethane	BSP	REC	110	%	70-130
MSM2884-BS	79-01-6	Trichloroethene	BSP	REC	102	%	70-130
MSM2884-BS	75-69-4	Trichlorofluoromethane	BSP	REC	102	%	70-130
MSM2884-BS	96-18-4	1,2,3-Trichloropropane	BSP	REC	104	%	70-130
MSM2884-BS	95-63-6	1,2,4-Trimethylbenzene	BSP	REC	107	%	70-130
MSM2884-BS	108-67-8	1,3,5-Trimethylbenzene	BSP	REC	112	%	70-130
MSM2884-BS	75-01-4	Vinyl chloride	BSP	REC	98	%	70-130
MSM2884-BS		m,p-Xylene	BSP	REC	109	%	70-130
MSM2884-BS	95-47-6	o-Xylene	BSP	REC	109	%	70-130
MSM2884-BS	1868-53-7	Dibromofluoromethane	BSP	SURR	102	%	70-130
MSM2884-BS	2037-26-5	Toluene-D8	BSP	SURR	100	%	70-130
MSM2884-BS	460-00-4	4-Bromofluorobenzene	BSP	SURR	96	%	70-130
MSM2884-MB	1868-53-7	Dibromofluoromethane	MB	SURR	104	%	70-130
MSM2884-MB	2037-26-5	Toluene-D8	MB	SURR	99	%	70-130
MSM2884-MB	460-00-4	4-Bromofluorobenzene	MB	SURR	106	%	70-130
MC47506-1	1868-53-7	Dibromofluoromethane	SAMP	SURR	69	%	70-130
MC47506-1	2037-26-5	Toluene-D8	SAMP	SURR	100	%	70-130
MC47506-1	460-00-4	4-Bromofluorobenzene	SAMP	SURR	104	%	70-130
MC47506-2	1868-53-7	Dibromofluoromethane	SAMP	SURR	52 ^a	%	70-130
MC47506-2	2037-26-5	Toluene-D8	SAMP	SURR	99	%	70-130
MC47506-2	460-00-4	4-Bromofluorobenzene	SAMP	SURR	104	%	70-130
MC47506-3	1868-53-7	Dibromofluoromethane	SAMP	SURR	73	%	70-130
MC47506-3	2037-26-5	Toluene-D8	SAMP	SURR	100	%	70-130
MC47506-3	460-00-4	4-Bromofluorobenzene	SAMP	SURR	101	%	70-130
MC47506-4	1868-53-7	Dibromofluoromethane	SAMP	SURR	107	%	70-130
MC47506-4	2037-26-5	Toluene-D8	SAMP	SURR	100	%	70-130
MC47506-4	460-00-4	4-Bromofluorobenzene	SAMP	SURR	103	%	70-130
MC47506-5	1868-53-7	Dibromofluoromethane	SAMP	SURR	90	%	70-130
MC47506-5	2037-26-5	Toluene-D8	SAMP	SURR	101	%	70-130
MC47506-5	460-00-4	4-Bromofluorobenzene	SAMP	SURR	103	%	70-130
MC47506-7	1868-53-7	Dibromofluoromethane	SAMP	SURR	109	%	70-130
MC47506-7	2037-26-5	Toluene-D8	SAMP	SURR	100	%	70-130
MC47506-7	460-00-4	4-Bromofluorobenzene	SAMP	SURR	117	%	70-130
MC47506-8	1868-53-7	Dibromofluoromethane	SAMP	SURR	108	%	70-130
MC47506-8	2037-26-5	Toluene-D8	SAMP	SURR	100	%	70-130
MC47506-8	460-00-4	4-Bromofluorobenzene	SAMP	SURR	107	%	70-130
MC47506-10	1868-53-7	Dibromofluoromethane	SAMP	SURR	108	%	70-130
MC47506-10	2037-26-5	Toluene-D8	SAMP	SURR	101	%	70-130

* Sample used for QC is not from job MC47506

5.4
 5

QC Evaluation: CT RCP Limits

Job Number: MC47506
Account: CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
Collected: 08/24/16

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
MC47506-10	460-00-4	4-Bromofluorobenzene	SAMP	SURR	105	%	70-130
MC47506-11	1868-53-7	Dibromofluoromethane	SAMP	SURR	108	%	70-130
MC47506-11	2037-26-5	Toluene-D8	SAMP	SURR	101	%	70-130
MC47506-11	460-00-4	4-Bromofluorobenzene	SAMP	SURR	108	%	70-130
MC47506-13	1868-53-7	Dibromofluoromethane	SAMP	SURR	106	%	70-130
MC47506-13	2037-26-5	Toluene-D8	SAMP	SURR	101	%	70-130
MC47506-13	460-00-4	4-Bromofluorobenzene	SAMP	SURR	114	%	70-130
MC47506-14	1868-53-7	Dibromofluoromethane	SAMP	SURR	109	%	70-130
MC47506-14	2037-26-5	Toluene-D8	SAMP	SURR	103	%	70-130
MC47506-14	460-00-4	4-Bromofluorobenzene	SAMP	SURR	124	%	70-130
MC47506-15	1868-53-7	Dibromofluoromethane	SAMP	SURR	111	%	70-130
MC47506-15	2037-26-5	Toluene-D8	SAMP	SURR	102	%	70-130
MC47506-15	460-00-4	4-Bromofluorobenzene	SAMP	SURR	115	%	70-130

MSM2885 SW846 8260C

MSM2885-BS	67-64-1	Acetone	BSP	REC	115	%	70-130
MSM2885-BS	107-13-1	Acrylonitrile	BSP	REC	107	%	70-130
MSM2885-BS	71-43-2	Benzene	BSP	REC	105	%	70-130
MSM2885-BS	108-86-1	Bromobenzene	BSP	REC	105	%	70-130
MSM2885-BS	75-27-4	Bromodichloromethane	BSP	REC	108	%	70-130
MSM2885-BS	75-25-2	Bromoform	BSP	REC	102	%	70-130
MSM2885-BS	74-83-9	Bromomethane	BSP	REC	124	%	70-130
MSM2885-BS	78-93-3	2-Butanone (MEK)	BSP	REC	91	%	70-130
MSM2885-BS	104-51-8	n-Butylbenzene	BSP	REC	114	%	70-130
MSM2885-BS	135-98-8	sec-Butylbenzene	BSP	REC	112	%	70-130
MSM2885-BS	98-06-6	tert-Butylbenzene	BSP	REC	113	%	70-130
MSM2885-BS	75-15-0	Carbon disulfide	BSP	REC	75	%	70-130
MSM2885-BS	56-23-5	Carbon tetrachloride	BSP	REC	107	%	70-130
MSM2885-BS	108-90-7	Chlorobenzene	BSP	REC	105	%	70-130
MSM2885-BS	75-00-3	Chloroethane	BSP	REC	115	%	70-130
MSM2885-BS	67-66-3	Chloroform	BSP	REC	110	%	70-130
MSM2885-BS	74-87-3	Chloromethane	BSP	REC	122	%	70-130
MSM2885-BS	95-49-8	o-Chlorotoluene	BSP	REC	108	%	70-130
MSM2885-BS	106-43-4	p-Chlorotoluene	BSP	REC	108	%	70-130
MSM2885-BS	96-12-8	1,2-Dibromo-3-chloropropane	BSP	REC	99	%	70-130
MSM2885-BS	124-48-1	Dibromochloromethane	BSP	REC	103	%	70-130
MSM2885-BS	106-93-4	1,2-Dibromoethane	BSP	REC	105	%	70-130
MSM2885-BS	95-50-1	1,2-Dichlorobenzene	BSP	REC	108	%	70-130
MSM2885-BS	541-73-1	1,3-Dichlorobenzene	BSP	REC	107	%	70-130
MSM2885-BS	106-46-7	1,4-Dichlorobenzene	BSP	REC	105	%	70-130
MSM2885-BS	75-71-8	Dichlorodifluoromethane	BSP	REC	104	%	70-130
MSM2885-BS	75-34-3	1,1-Dichloroethane	BSP	REC	102	%	70-130
MSM2885-BS	107-06-2	1,2-Dichloroethane	BSP	REC	105	%	70-130
MSM2885-BS	75-35-4	1,1-Dichloroethene	BSP	REC	91	%	70-130

* Sample used for QC is not from job MC47506

QC Evaluation: CT RCP Limits

Job Number: MC47506
Account: CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
Collected: 08/24/16

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
MSM2885-BS	156-59-2	cis-1,2-Dichloroethene	BSP	REC	112	%	70-130
MSM2885-BS	156-60-5	trans-1,2-Dichloroethene	BSP	REC	95	%	70-130
MSM2885-BS	78-87-5	1,2-Dichloropropane	BSP	REC	107	%	70-130
MSM2885-BS	142-28-9	1,3-Dichloropropane	BSP	REC	112	%	70-130
MSM2885-BS	594-20-7	2,2-Dichloropropane	BSP	REC	109	%	70-130
MSM2885-BS	563-58-6	1,1-Dichloropropene	BSP	REC	105	%	70-130
MSM2885-BS	10061-01-5	cis-1,3-Dichloropropene	BSP	REC	105	%	70-130
MSM2885-BS	10061-02-6	trans-1,3-Dichloropropene	BSP	REC	100	%	70-130
MSM2885-BS	100-41-4	Ethylbenzene	BSP	REC	110	%	70-130
MSM2885-BS	76-13-1	Freon 113	BSP	REC	100	%	70-130
MSM2885-BS	87-68-3	Hexachlorobutadiene	BSP	REC	106	%	70-130
MSM2885-BS	591-78-6	2-Hexanone	BSP	REC	121	%	70-130
MSM2885-BS	98-82-8	Isopropylbenzene	BSP	REC	109	%	70-130
MSM2885-BS	99-87-6	p-Isopropyltoluene	BSP	REC	113	%	70-130
MSM2885-BS	1634-04-4	Methyl Tert Butyl Ether	BSP	REC	106	%	70-130
MSM2885-BS	108-10-1	4-Methyl-2-pentanone (MIBK)	BSP	REC	114	%	70-130
MSM2885-BS	74-95-3	Methylene bromide	BSP	REC	104	%	70-130
MSM2885-BS	75-09-2	Methylene chloride	BSP	REC	98	%	70-130
MSM2885-BS	91-20-3	Naphthalene	BSP	REC	95	%	70-130
MSM2885-BS	103-65-1	n-Propylbenzene	BSP	REC	108	%	70-130
MSM2885-BS	100-42-5	Styrene	BSP	REC	111	%	70-130
MSM2885-BS	630-20-6	1,1,1,2-Tetrachloroethane	BSP	REC	110	%	70-130
MSM2885-BS	79-34-5	1,1,2,2-Tetrachloroethane	BSP	REC	107	%	70-130
MSM2885-BS	127-18-4	Tetrachloroethene	BSP	REC	101	%	70-130
MSM2885-BS	109-99-9	Tetrahydrofuran	BSP	REC	94	%	70-130
MSM2885-BS	108-88-3	Toluene	BSP	REC	106	%	70-130
MSM2885-BS	110-57-6	Trans-1,4-Dichloro-2-Butene	BSP	REC	106	%	70-130
MSM2885-BS	87-61-6	1,2,3-Trichlorobenzene	BSP	REC	105	%	70-130
MSM2885-BS	120-82-1	1,2,4-Trichlorobenzene	BSP	REC	103	%	70-130
MSM2885-BS	71-55-6	1,1,1-Trichloroethane	BSP	REC	112	%	70-130
MSM2885-BS	79-00-5	1,1,2-Trichloroethane	BSP	REC	110	%	70-130
MSM2885-BS	79-01-6	Trichloroethene	BSP	REC	106	%	70-130
MSM2885-BS	75-69-4	Trichlorofluoromethane	BSP	REC	105	%	70-130
MSM2885-BS	96-18-4	1,2,3-Trichloropropane	BSP	REC	103	%	70-130
MSM2885-BS	95-63-6	1,2,4-Trimethylbenzene	BSP	REC	110	%	70-130
MSM2885-BS	108-67-8	1,3,5-Trimethylbenzene	BSP	REC	115	%	70-130
MSM2885-BS	75-01-4	Vinyl chloride	BSP	REC	96	%	70-130
MSM2885-BS		m,p-Xylene	BSP	REC	111	%	70-130
MSM2885-BS	95-47-6	o-Xylene	BSP	REC	110	%	70-130
MSM2885-BS	1868-53-7	Dibromofluoromethane	BSP	SURR	102	%	70-130
MSM2885-BS	2037-26-5	Toluene-D8	BSP	SURR	101	%	70-130
MSM2885-BS	460-00-4	4-Bromofluorobenzene	BSP	SURR	93	%	70-130
MSM2885-MB	1868-53-7	Dibromofluoromethane	MB	SURR	107	%	70-130
MSM2885-MB	2037-26-5	Toluene-D8	MB	SURR	103	%	70-130
MSM2885-MB	460-00-4	4-Bromofluorobenzene	MB	SURR	107	%	70-130

* Sample used for QC is not from job MC47506

5.4
5

QC Evaluation: CT RCP Limits

Job Number: MC47506
Account: CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
Collected: 08/24/16

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
MC47506-2	1868-53-7	Dibromofluoromethane	SAMP	SURR	60 ^a	%	70-130
MC47506-2	2037-26-5	Toluene-D8	SAMP	SURR	105	%	70-130
MC47506-2	460-00-4	4-Bromofluorobenzene	SAMP	SURR	105	%	70-130
MC47506-6	1868-53-7	Dibromofluoromethane	SAMP	SURR	107	%	70-130
MC47506-6	2037-26-5	Toluene-D8	SAMP	SURR	101	%	70-130
MC47506-6	460-00-4	4-Bromofluorobenzene	SAMP	SURR	109	%	70-130
MC47506-12	1868-53-7	Dibromofluoromethane	SAMP	SURR	109	%	70-130
MC47506-12	2037-26-5	Toluene-D8	SAMP	SURR	103	%	70-130
MC47506-12	460-00-4	4-Bromofluorobenzene	SAMP	SURR	107	%	70-130
OP48551	SW846 8270D						
OP48551-BS	95-57-8	2-Chlorophenol	BSP	REC	84	%	30-130
OP48551-BS	59-50-7	4-Chloro-3-methyl phenol	BSP	REC	96	%	30-130
OP48551-BS	120-83-2	2,4-Dichlorophenol	BSP	REC	86	%	30-130
OP48551-BS	105-67-9	2,4-Dimethylphenol	BSP	REC	90	%	30-130
OP48551-BS	51-28-5	2,4-Dinitrophenol	BSP	REC	167 ^b	%	30-130
OP48551-BS	534-52-1	4,6-Dinitro-o-cresol	BSP	REC	161 ^b	%	30-130
OP48551-BS	95-48-7	2-Methylphenol	BSP	REC	82	%	30-130
OP48551-BS	106-44-5	4-Methylphenol	BSP	REC	85	%	30-130
OP48551-BS	88-75-5	2-Nitrophenol	BSP	REC	104	%	30-130
OP48551-BS	100-02-7	4-Nitrophenol	BSP	REC	110	%	30-130
OP48551-BS	87-86-5	Pentachlorophenol	BSP	REC	100	%	30-130
OP48551-BS	108-95-2	Phenol	BSP	REC	82	%	30-130
OP48551-BS	95-95-4	2,4,5-Trichlorophenol	BSP	REC	90	%	30-130
OP48551-BS	88-06-2	2,4,6-Trichlorophenol	BSP	REC	91	%	30-130
OP48551-BS	83-32-9	Acenaphthene	BSP	REC	90	%	40-140
OP48551-BS	208-96-8	Acenaphthylene	BSP	REC	69	%	40-140
OP48551-BS	62-53-3	Aniline	BSP	REC	55	%	40-140
OP48551-BS	120-12-7	Anthracene	BSP	REC	83	%	40-140
OP48551-BS	56-55-3	Benzo(a)anthracene	BSP	REC	90	%	40-140
OP48551-BS	50-32-8	Benzo(a)pyrene	BSP	REC	84	%	40-140
OP48551-BS	205-99-2	Benzo(b)fluoranthene	BSP	REC	86	%	40-140
OP48551-BS	191-24-2	Benzo(g,h,i)perylene	BSP	REC	82	%	40-140
OP48551-BS	207-08-9	Benzo(k)fluoranthene	BSP	REC	84	%	40-140
OP48551-BS	101-55-3	4-Bromophenyl phenyl ether	BSP	REC	86	%	40-140
OP48551-BS	85-68-7	Butyl benzyl phthalate	BSP	REC	115	%	40-140
OP48551-BS	91-58-7	2-Chloronaphthalene	BSP	REC	84	%	40-140
OP48551-BS	106-47-8	4-Chloroaniline	BSP	REC	47	%	40-140
OP48551-BS	86-74-8	Carbazole	BSP	REC	93	%	40-140
OP48551-BS	218-01-9	Chrysene	BSP	REC	86	%	40-140
OP48551-BS	111-91-1	bis(2-Chloroethoxy)methane	BSP	REC	75	%	40-140
OP48551-BS	111-44-4	bis(2-Chloroethyl)ether	BSP	REC	80	%	40-140
OP48551-BS	108-60-1	bis(2-Chloroisopropyl)ether	BSP	REC	89	%	40-140
OP48551-BS	7005-72-3	4-Chlorophenyl phenyl ether	BSP	REC	82	%	40-140

* Sample used for QC is not from job MC47506

5.4
5

QC Evaluation: CT RCP Limits

Job Number: MC47506
Account: CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
Collected: 08/24/16

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
OP48551-BS	121-14-2	2,4-Dinitrotoluene	BSP	REC	108	%	40-140
OP48551-BS	606-20-2	2,6-Dinitrotoluene	BSP	REC	103	%	40-140
OP48551-BS	91-94-1	3,3'-Dichlorobenzidine	BSP	REC	62	%	40-140
OP48551-BS	53-70-3	Dibenzo(a,h)anthracene	BSP	REC	81	%	40-140
OP48551-BS	132-64-9	Dibenzofuran	BSP	REC	88	%	40-140
OP48551-BS	84-74-2	Di-n-butyl phthalate	BSP	REC	101	%	40-140
OP48551-BS	117-84-0	Di-n-octyl phthalate	BSP	REC	102	%	40-140
OP48551-BS	84-66-2	Diethyl phthalate	BSP	REC	96	%	40-140
OP48551-BS	131-11-3	Dimethyl phthalate	BSP	REC	90	%	40-140
OP48551-BS	117-81-7	bis(2-Ethylhexyl)phthalate	BSP	REC	103	%	40-140
OP48551-BS	206-44-0	Fluoranthene	BSP	REC	87	%	40-140
OP48551-BS	86-73-7	Fluorene	BSP	REC	91	%	40-140
OP48551-BS	118-74-1	Hexachlorobenzene	BSP	REC	84	%	40-140
OP48551-BS	87-68-3	Hexachlorobutadiene	BSP	REC	70	%	40-140
OP48551-BS	77-47-4	Hexachlorocyclopentadiene	BSP	REC	62	%	40-140
OP48551-BS	67-72-1	Hexachloroethane	BSP	REC	81	%	40-140
OP48551-BS	193-39-5	Indeno(1,2,3-cd)pyrene	BSP	REC	80	%	40-140
OP48551-BS	78-59-1	Isophorone	BSP	REC	77	%	40-140
OP48551-BS	91-57-6	2-Methylnaphthalene	BSP	REC	83	%	40-140
OP48551-BS	88-74-4	2-Nitroaniline	BSP	REC	110	%	40-140
OP48551-BS	99-09-2	3-Nitroaniline	BSP	REC	80	%	40-140
OP48551-BS	100-01-6	4-Nitroaniline	BSP	REC	101	%	40-140
OP48551-BS	91-20-3	Naphthalene	BSP	REC	79	%	40-140
OP48551-BS	98-95-3	Nitrobenzene	BSP	REC	88	%	40-140
OP48551-BS	621-64-7	N-Nitroso-di-n-propylamine	BSP	REC	83	%	40-140
OP48551-BS	86-30-6	N-Nitrosodiphenylamine	BSP	REC	84	%	40-140
OP48551-BS	82-68-8	Pentachloronitrobenzene	BSP	REC	95	%	40-140
OP48551-BS	85-01-8	Phenanthrene	BSP	REC	86	%	40-140
OP48551-BS	129-00-0	Pyrene	BSP	REC	92	%	40-140
OP48551-BS	110-86-1	Pyridine	BSP	REC	48	%	40-140
OP48551-BS	95-94-3	1,2,4,5-Tetrachlorobenzene	BSP	REC	72	%	40-140
OP48551-BS	120-82-1	1,2,4-Trichlorobenzene	BSP	REC	71	%	40-140
OP48551-BS	367-12-4	2-Fluorophenol	BSP	SURR	83	%	30-130
OP48551-BS	4165-62-2	Phenol-d5	BSP	SURR	83	%	30-130
OP48551-BS	118-79-6	2,4,6-Tribromophenol	BSP	SURR	110	%	30-130
OP48551-BS	4165-60-0	Nitrobenzene-d5	BSP	SURR	88	%	30-130
OP48551-BS	321-60-8	2-Fluorobiphenyl	BSP	SURR	88	%	30-130
OP48551-BS	1718-51-0	Terphenyl-d14	BSP	SURR	98	%	30-130
OP48551-MB	367-12-4	2-Fluorophenol	MB	SURR	80	%	30-130
OP48551-MB	4165-62-2	Phenol-d5	MB	SURR	79	%	30-130
OP48551-MB	118-79-6	2,4,6-Tribromophenol	MB	SURR	105	%	30-130
OP48551-MB	4165-60-0	Nitrobenzene-d5	MB	SURR	83	%	30-130
OP48551-MB	321-60-8	2-Fluorobiphenyl	MB	SURR	86	%	30-130
OP48551-MB	1718-51-0	Terphenyl-d14	MB	SURR	99	%	30-130
MC47506-15	367-12-4	2-Fluorophenol	SAMP	SURR	77	%	30-130

* Sample used for QC is not from job MC47506

QC Evaluation: CT RCP Limits

Job Number: MC47506
Account: CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
Collected: 08/24/16

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
MC47506-15	4165-62-2	Phenol-d5	SAMP	SURR	80	%	30-130
MC47506-15	118-79-6	2,4,6-Tribromophenol	SAMP	SURR	117	%	30-130
MC47506-15	4165-60-0	Nitrobenzene-d5	SAMP	SURR	85	%	30-130
MC47506-15	321-60-8	2-Fluorobiphenyl	SAMP	SURR	87	%	30-130
MC47506-15	1718-51-0	Terphenyl-d14	SAMP	SURR	109	%	30-130
OP48552	SW846 8270D						
OP48552-BS	95-57-8	2-Chlorophenol	BSP	REC	79	%	30-130
OP48552-BS	59-50-7	4-Chloro-3-methyl phenol	BSP	REC	83	%	30-130
OP48552-BS	120-83-2	2,4-Dichlorophenol	BSP	REC	86	%	30-130
OP48552-BS	105-67-9	2,4-Dimethylphenol	BSP	REC	84	%	30-130
OP48552-BS	51-28-5	2,4-Dinitrophenol	BSP	REC	64	%	30-130
OP48552-BS	534-52-1	4,6-Dinitro-o-cresol	BSP	REC	87	%	30-130
OP48552-BS	95-48-7	2-Methylphenol	BSP	REC	79	%	30-130
OP48552-BS	106-44-5	4-Methylphenol	BSP	REC	81	%	30-130
OP48552-BS	88-75-5	2-Nitrophenol	BSP	REC	80	%	30-130
OP48552-BS	100-02-7	4-Nitrophenol	BSP	REC	86	%	30-130
OP48552-BS	87-86-5	Pentachlorophenol	BSP	REC	67	%	30-130
OP48552-BS	108-95-2	Phenol	BSP	REC	84	%	30-130
OP48552-BS	95-95-4	2,4,5-Trichlorophenol	BSP	REC	89	%	30-130
OP48552-BS	88-06-2	2,4,6-Trichlorophenol	BSP	REC	91	%	30-130
OP48552-BS	83-32-9	Acenaphthene	BSP	REC	79	%	40-140
OP48552-BS	208-96-8	Acenaphthylene	BSP	REC	61	%	40-140
OP48552-BS	62-53-3	Aniline	BSP	REC	53	%	40-140
OP48552-BS	120-12-7	Anthracene	BSP	REC	82	%	40-140
OP48552-BS	56-55-3	Benzo(a)anthracene	BSP	REC	80	%	40-140
OP48552-BS	50-32-8	Benzo(a)pyrene	BSP	REC	75	%	40-140
OP48552-BS	205-99-2	Benzo(b)fluoranthene	BSP	REC	71	%	40-140
OP48552-BS	191-24-2	Benzo(g,h,i)perylene	BSP	REC	93	%	40-140
OP48552-BS	207-08-9	Benzo(k)fluoranthene	BSP	REC	68	%	40-140
OP48552-BS	101-55-3	4-Bromophenyl phenyl ether	BSP	REC	92	%	40-140
OP48552-BS	85-68-7	Butyl benzyl phthalate	BSP	REC	71	%	40-140
OP48552-BS	91-58-7	2-Chloronaphthalene	BSP	REC	80	%	40-140
OP48552-BS	106-47-8	4-Chloroaniline	BSP	REC	49	%	40-140
OP48552-BS	86-74-8	Carbazole	BSP	REC	88	%	40-140
OP48552-BS	218-01-9	Chrysene	BSP	REC	78	%	40-140
OP48552-BS	111-91-1	bis(2-Chloroethoxy)methane	BSP	REC	79	%	40-140
OP48552-BS	111-44-4	bis(2-Chloroethyl)ether	BSP	REC	69	%	40-140
OP48552-BS	108-60-1	bis(2-Chloroisopropyl)ether	BSP	REC	77	%	40-140
OP48552-BS	7005-72-3	4-Chlorophenyl phenyl ether	BSP	REC	82	%	40-140
OP48552-BS	121-14-2	2,4-Dinitrotoluene	BSP	REC	85	%	40-140
OP48552-BS	606-20-2	2,6-Dinitrotoluene	BSP	REC	88	%	40-140
OP48552-BS	91-94-1	3,3'-Dichlorobenzidine	BSP	REC	54	%	40-140
OP48552-BS	53-70-3	Dibenzo(a,h)anthracene	BSP	REC	92	%	40-140

* Sample used for QC is not from job MC47506

QC Evaluation: CT RCP Limits

Job Number: MC47506
Account: CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
Collected: 08/24/16

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
OP48552-BS	132-64-9	Dibenzofuran	BSP	REC	78	%	40-140
OP48552-BS	84-74-2	Di-n-butyl phthalate	BSP	REC	86	%	40-140
OP48552-BS	117-84-0	Di-n-octyl phthalate	BSP	REC	61	%	40-140
OP48552-BS	84-66-2	Diethyl phthalate	BSP	REC	78	%	40-140
OP48552-BS	131-11-3	Dimethyl phthalate	BSP	REC	81	%	40-140
OP48552-BS	117-81-7	bis(2-Ethylhexyl)phthalate	BSP	REC	72	%	40-140
OP48552-BS	206-44-0	Fluoranthene	BSP	REC	86	%	40-140
OP48552-BS	86-73-7	Fluorene	BSP	REC	79	%	40-140
OP48552-BS	118-74-1	Hexachlorobenzene	BSP	REC	90	%	40-140
OP48552-BS	87-68-3	Hexachlorobutadiene	BSP	REC	77	%	40-140
OP48552-BS	77-47-4	Hexachlorocyclopentadiene	BSP	REC	34	%	40-140
OP48552-BS	67-72-1	Hexachloroethane	BSP	REC	65	%	40-140
OP48552-BS	193-39-5	Indeno(1,2,3-cd)pyrene	BSP	REC	96	%	40-140
OP48552-BS	78-59-1	Isophorone	BSP	REC	78	%	40-140
OP48552-BS	91-57-6	2-Methylnaphthalene	BSP	REC	83	%	40-140
OP48552-BS	88-74-4	2-Nitroaniline	BSP	REC	88	%	40-140
OP48552-BS	99-09-2	3-Nitroaniline	BSP	REC	69	%	40-140
OP48552-BS	100-01-6	4-Nitroaniline	BSP	REC	84	%	40-140
OP48552-BS	91-20-3	Naphthalene	BSP	REC	106	%	40-140
OP48552-BS	98-95-3	Nitrobenzene	BSP	REC	79	%	40-140
OP48552-BS	621-64-7	N-Nitroso-di-n-propylamine	BSP	REC	84	%	40-140
OP48552-BS	86-30-6	N-Nitrosodiphenylamine	BSP	REC	82	%	40-140
OP48552-BS	82-68-8	Pentachloronitrobenzene	BSP	REC	86	%	40-140
OP48552-BS	85-01-8	Phenanthrene	BSP	REC	86	%	40-140
OP48552-BS	129-00-0	Pyrene	BSP	REC	73	%	40-140
OP48552-BS	110-86-1	Pyridine	BSP	REC	55	%	40-140
OP48552-BS	95-94-3	1,2,4,5-Tetrachlorobenzene	BSP	REC	83	%	40-140
OP48552-BS	120-82-1	1,2,4-Trichlorobenzene	BSP	REC	76	%	40-140
OP48552-BS	367-12-4	2-Fluorophenol	BSP	SURR	82	%	30-130
OP48552-BS	4165-62-2	Phenol-d5	BSP	SURR	86	%	30-130
OP48552-BS	118-79-6	2,4,6-Tribromophenol	BSP	SURR	94	%	30-130
OP48552-BS	4165-60-0	Nitrobenzene-d5	BSP	SURR	78	%	30-130
OP48552-BS	321-60-8	2-Fluorobiphenyl	BSP	SURR	82	%	30-130
OP48552-BS	1718-51-0	Terphenyl-d14	BSP	SURR	81	%	30-130
OP48552-MB	367-12-4	2-Fluorophenol	MB	SURR	71	%	30-130
OP48552-MB	4165-62-2	Phenol-d5	MB	SURR	75	%	30-130
OP48552-MB	118-79-6	2,4,6-Tribromophenol	MB	SURR	91	%	30-130
OP48552-MB	4165-60-0	Nitrobenzene-d5	MB	SURR	65	%	30-130
OP48552-MB	321-60-8	2-Fluorobiphenyl	MB	SURR	71	%	30-130
OP48552-MB	1718-51-0	Terphenyl-d14	MB	SURR	91	%	30-130
MC47506-1	367-12-4	2-Fluorophenol	SAMP	SURR	2 ^a	%	30-130
MC47506-1	367-12-4	2-Fluorophenol	SAMP	SURR	3 ^a	%	30-130
MC47506-1	4165-62-2	Phenol-d5	SAMP	SURR	24 ^a	%	30-130
MC47506-1	4165-62-2	Phenol-d5	SAMP	SURR	23 ^a	%	30-130
MC47506-1	118-79-6	2,4,6-Tribromophenol	SAMP	SURR	0 ^a	%	30-130

* Sample used for QC is not from job MC47506

5.4
5

QC Evaluation: CT RCP Limits

Job Number: MC47506
Account: CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
Collected: 08/24/16

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
MC47506-1	118-79-6	2,4,6-Tribromophenol	SAMP	SURR	5 ^a	%	30-130
MC47506-1	4165-60-0	Nitrobenzene-d5	SAMP	SURR	74	%	30-130
MC47506-1	4165-60-0	Nitrobenzene-d5	SAMP	SURR	78	%	30-130
MC47506-1	321-60-8	2-Fluorobiphenyl	SAMP	SURR	78	%	30-130
MC47506-1	321-60-8	2-Fluorobiphenyl	SAMP	SURR	75	%	30-130
MC47506-1	1718-51-0	Terphenyl-d14	SAMP	SURR	81	%	30-130
MC47506-1	1718-51-0	Terphenyl-d14	SAMP	SURR	77	%	30-130
MC47506-2	367-12-4	2-Fluorophenol	SAMP	SURR	2 ^a	%	30-130
MC47506-2	367-12-4	2-Fluorophenol	SAMP	SURR	2 ^a	%	30-130
MC47506-2	4165-62-2	Phenol-d5	SAMP	SURR	23 ^a	%	30-130
MC47506-2	4165-62-2	Phenol-d5	SAMP	SURR	22 ^a	%	30-130
MC47506-2	118-79-6	2,4,6-Tribromophenol	SAMP	SURR	0 ^a	%	30-130
MC47506-2	118-79-6	2,4,6-Tribromophenol	SAMP	SURR	7 ^a	%	30-130
MC47506-2	4165-60-0	Nitrobenzene-d5	SAMP	SURR	81	%	30-130
MC47506-2	4165-60-0	Nitrobenzene-d5	SAMP	SURR	83	%	30-130
MC47506-2	321-60-8	2-Fluorobiphenyl	SAMP	SURR	84	%	30-130
MC47506-2	321-60-8	2-Fluorobiphenyl	SAMP	SURR	79	%	30-130
MC47506-2	1718-51-0	Terphenyl-d14	SAMP	SURR	78	%	30-130
MC47506-2	1718-51-0	Terphenyl-d14	SAMP	SURR	79	%	30-130
MC47506-3	367-12-4	2-Fluorophenol	SAMP	SURR	0 ^a	%	30-130
MC47506-3	367-12-4	2-Fluorophenol	SAMP	SURR	0 ^a	%	30-130
MC47506-3	4165-62-2	Phenol-d5	SAMP	SURR	25 ^a	%	30-130
MC47506-3	4165-62-2	Phenol-d5	SAMP	SURR	27 ^a	%	30-130
MC47506-3	118-79-6	2,4,6-Tribromophenol	SAMP	SURR	0 ^a	%	30-130
MC47506-3	118-79-6	2,4,6-Tribromophenol	SAMP	SURR	9 ^a	%	30-130
MC47506-3	4165-60-0	Nitrobenzene-d5	SAMP	SURR	87	%	30-130
MC47506-3	4165-60-0	Nitrobenzene-d5	SAMP	SURR	87	%	30-130
MC47506-3	321-60-8	2-Fluorobiphenyl	SAMP	SURR	88	%	30-130
MC47506-3	321-60-8	2-Fluorobiphenyl	SAMP	SURR	84	%	30-130
MC47506-3	1718-51-0	Terphenyl-d14	SAMP	SURR	81	%	30-130
MC47506-3	1718-51-0	Terphenyl-d14	SAMP	SURR	85	%	30-130
MC47506-4	367-12-4	2-Fluorophenol	SAMP	SURR	2 ^a	%	30-130
MC47506-4	367-12-4	2-Fluorophenol	SAMP	SURR	0 ^a	%	30-130
MC47506-4	4165-62-2	Phenol-d5	SAMP	SURR	28 ^a	%	30-130
MC47506-4	4165-62-2	Phenol-d5	SAMP	SURR	28 ^a	%	30-130
MC47506-4	118-79-6	2,4,6-Tribromophenol	SAMP	SURR	4 ^a	%	30-130
MC47506-4	118-79-6	2,4,6-Tribromophenol	SAMP	SURR	0 ^a	%	30-130
MC47506-4	4165-60-0	Nitrobenzene-d5	SAMP	SURR	84	%	30-130
MC47506-4	4165-60-0	Nitrobenzene-d5	SAMP	SURR	93	%	30-130
MC47506-4	321-60-8	2-Fluorobiphenyl	SAMP	SURR	89	%	30-130
MC47506-4	321-60-8	2-Fluorobiphenyl	SAMP	SURR	78	%	30-130
MC47506-4	1718-51-0	Terphenyl-d14	SAMP	SURR	86	%	30-130
MC47506-4	1718-51-0	Terphenyl-d14	SAMP	SURR	76	%	30-130
MC47506-5	367-12-4	2-Fluorophenol	SAMP	SURR	0 ^a	%	30-130
MC47506-5	367-12-4	2-Fluorophenol	SAMP	SURR	3 ^a	%	30-130

* Sample used for QC is not from job MC47506

5.4
 5

QC Evaluation: CT RCP Limits

Job Number: MC47506
Account: CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
Collected: 08/24/16

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
MC47506-5	4165-62-2	Phenol-d5	SAMP	SURR	28 ^a	%	30-130
MC47506-5	4165-62-2	Phenol-d5	SAMP	SURR	28 ^a	%	30-130
MC47506-5	118-79-6	2,4,6-Tribromophenol	SAMP	SURR	10 ^a	%	30-130
MC47506-5	118-79-6	2,4,6-Tribromophenol	SAMP	SURR	0 ^a	%	30-130
MC47506-5	4165-60-0	Nitrobenzene-d5	SAMP	SURR	88	%	30-130
MC47506-5	4165-60-0	Nitrobenzene-d5	SAMP	SURR	90	%	30-130
MC47506-5	321-60-8	2-Fluorobiphenyl	SAMP	SURR	83	%	30-130
MC47506-5	321-60-8	2-Fluorobiphenyl	SAMP	SURR	84	%	30-130
MC47506-5	1718-51-0	Terphenyl-d14	SAMP	SURR	87	%	30-130
MC47506-5	1718-51-0	Terphenyl-d14	SAMP	SURR	79	%	30-130
MC47506-6	367-12-4	2-Fluorophenol	SAMP	SURR	73	%	30-130
MC47506-6	4165-62-2	Phenol-d5	SAMP	SURR	76	%	30-130
MC47506-6	118-79-6	2,4,6-Tribromophenol	SAMP	SURR	84	%	30-130
MC47506-6	4165-60-0	Nitrobenzene-d5	SAMP	SURR	75	%	30-130
MC47506-6	321-60-8	2-Fluorobiphenyl	SAMP	SURR	74	%	30-130
MC47506-6	1718-51-0	Terphenyl-d14	SAMP	SURR	70	%	30-130
MC47506-7	367-12-4	2-Fluorophenol	SAMP	SURR	85	%	30-130
MC47506-7	4165-62-2	Phenol-d5	SAMP	SURR	84	%	30-130
MC47506-7	118-79-6	2,4,6-Tribromophenol	SAMP	SURR	71	%	30-130
MC47506-7	4165-60-0	Nitrobenzene-d5	SAMP	SURR	79	%	30-130
MC47506-7	321-60-8	2-Fluorobiphenyl	SAMP	SURR	73	%	30-130
MC47506-7	1718-51-0	Terphenyl-d14	SAMP	SURR	73	%	30-130
MC47506-8	367-12-4	2-Fluorophenol	SAMP	SURR	80	%	30-130
MC47506-8	4165-62-2	Phenol-d5	SAMP	SURR	88	%	30-130
MC47506-8	118-79-6	2,4,6-Tribromophenol	SAMP	SURR	96	%	30-130
MC47506-8	4165-60-0	Nitrobenzene-d5	SAMP	SURR	74	%	30-130
MC47506-8	321-60-8	2-Fluorobiphenyl	SAMP	SURR	80	%	30-130
MC47506-8	1718-51-0	Terphenyl-d14	SAMP	SURR	91	%	30-130
MC47506-9	367-12-4	2-Fluorophenol	SAMP	SURR	96	%	30-130
MC47506-9	4165-62-2	Phenol-d5	SAMP	SURR	90	%	30-130
MC47506-9	118-79-6	2,4,6-Tribromophenol	SAMP	SURR	92	%	30-130
MC47506-9	4165-60-0	Nitrobenzene-d5	SAMP	SURR	81	%	30-130
MC47506-9	321-60-8	2-Fluorobiphenyl	SAMP	SURR	81	%	30-130
MC47506-9	1718-51-0	Terphenyl-d14	SAMP	SURR	81	%	30-130
MC47506-10	367-12-4	2-Fluorophenol	SAMP	SURR	85	%	30-130
MC47506-10	4165-62-2	Phenol-d5	SAMP	SURR	91	%	30-130
MC47506-10	118-79-6	2,4,6-Tribromophenol	SAMP	SURR	90	%	30-130
MC47506-10	4165-60-0	Nitrobenzene-d5	SAMP	SURR	88	%	30-130
MC47506-10	321-60-8	2-Fluorobiphenyl	SAMP	SURR	84	%	30-130
MC47506-10	1718-51-0	Terphenyl-d14	SAMP	SURR	82	%	30-130
MC47506-11	367-12-4	2-Fluorophenol	SAMP	SURR	86	%	30-130
MC47506-11	4165-62-2	Phenol-d5	SAMP	SURR	95	%	30-130
MC47506-11	118-79-6	2,4,6-Tribromophenol	SAMP	SURR	96	%	30-130
MC47506-11	4165-60-0	Nitrobenzene-d5	SAMP	SURR	86	%	30-130
MC47506-11	321-60-8	2-Fluorobiphenyl	SAMP	SURR	85	%	30-130

* Sample used for QC is not from job MC47506

QC Evaluation: CT RCP Limits

Job Number: MC47506
Account: CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
Collected: 08/24/16

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
MC47506-11	1718-51-0	Terphenyl-d14	SAMP	SURR	94	%	30-130
MC47506-12	367-12-4	2-Fluorophenol	SAMP	SURR	89	%	30-130
MC47506-12	4165-62-2	Phenol-d5	SAMP	SURR	92	%	30-130
MC47506-12	118-79-6	2,4,6-Tribromophenol	SAMP	SURR	77	%	30-130
MC47506-12	4165-60-0	Nitrobenzene-d5	SAMP	SURR	81	%	30-130
MC47506-12	321-60-8	2-Fluorobiphenyl	SAMP	SURR	84	%	30-130
MC47506-12	1718-51-0	Terphenyl-d14	SAMP	SURR	82	%	30-130
MC47506-13	367-12-4	2-Fluorophenol	SAMP	SURR	97	%	30-130
MC47506-13	4165-62-2	Phenol-d5	SAMP	SURR	99	%	30-130
MC47506-13	118-79-6	2,4,6-Tribromophenol	SAMP	SURR	97	%	30-130
MC47506-13	4165-60-0	Nitrobenzene-d5	SAMP	SURR	91	%	30-130
MC47506-13	321-60-8	2-Fluorobiphenyl	SAMP	SURR	89	%	30-130
MC47506-13	1718-51-0	Terphenyl-d14	SAMP	SURR	92	%	30-130
MC47506-14	367-12-4	2-Fluorophenol	SAMP	SURR	103	%	30-130
MC47506-14	4165-62-2	Phenol-d5	SAMP	SURR	107	%	30-130
MC47506-14	118-79-6	2,4,6-Tribromophenol	SAMP	SURR	117	%	30-130
MC47506-14	4165-60-0	Nitrobenzene-d5	SAMP	SURR	96	%	30-130
MC47506-14	321-60-8	2-Fluorobiphenyl	SAMP	SURR	98	%	30-130
MC47506-14	1718-51-0	Terphenyl-d14	SAMP	SURR	100	%	30-130

OP48554 SW846 8082A

OP48554-BS	12674-11-2	Aroclor 1016	BSP	REC	85	%	40-140
OP48554-BS	11096-82-5	Aroclor 1260	BSP	REC	89	%	40-140
OP48554-BS	877-09-8	Tetrachloro-m-xylene (sig#1)	BSP	SURR	69	%	30-150
OP48554-BS	877-09-8	Tetrachloro-m-xylene (sig#2)	BSP	SURR	68	%	30-150
OP48554-BS	2051-24-3	Decachlorobiphenyl (sig#1)	BSP	SURR	83	%	30-150
OP48554-BS	2051-24-3	Decachlorobiphenyl (sig#2)	BSP	SURR	78	%	30-150
OP48554-MB	877-09-8	Tetrachloro-m-xylene (sig#1)	MB	SURR	84	%	30-150
OP48554-MB	877-09-8	Tetrachloro-m-xylene (sig#2)	MB	SURR	85	%	30-150
OP48554-MB	2051-24-3	Decachlorobiphenyl (sig#1)	MB	SURR	79	%	30-150
OP48554-MB	2051-24-3	Decachlorobiphenyl (sig#2)	MB	SURR	75	%	30-150
MC47506-2	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	85	%	30-150
MC47506-2	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	84	%	30-150
MC47506-2	2051-24-3	Decachlorobiphenyl (sig#1)	SAMP	SURR	97	%	30-150
MC47506-2	2051-24-3	Decachlorobiphenyl (sig#2)	SAMP	SURR	85	%	30-150
MC47506-4	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	81	%	30-150
MC47506-4	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	84	%	30-150
MC47506-4	2051-24-3	Decachlorobiphenyl (sig#1)	SAMP	SURR	83	%	30-150
MC47506-4	2051-24-3	Decachlorobiphenyl (sig#2)	SAMP	SURR	74	%	30-150
MC47506-8	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	75	%	30-150
MC47506-8	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	76	%	30-150
MC47506-8	2051-24-3	Decachlorobiphenyl (sig#1)	SAMP	SURR	84	%	30-150
MC47506-8	2051-24-3	Decachlorobiphenyl (sig#2)	SAMP	SURR	81	%	30-150
MC47506-14	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	84	%	30-150

* Sample used for QC is not from job MC47506

5.4
5

QC Evaluation: CT RCP Limits

Job Number: MC47506
Account: CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT
Collected: 08/24/16

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
MC47506-14	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	91	%	30-150
MC47506-14	2051-24-3	Decachlorobiphenyl (sig#1)	SAMP	SURR	94	%	30-150
MC47506-14	2051-24-3	Decachlorobiphenyl (sig#2)	SAMP	SURR	91	%	30-150

- (a) Outside control limits due to possible matrix interference. Confirmed by reanalysis.
- (b) Outside control limits. Associated samples are not reported for this compound.

* Sample used for QC is not from job MC47506

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC47506

Account: CDRMRHCT CDR Maguire

Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSL4337-MB	L99930.D	1	08/29/16	TB	n/a	n/a	MSL4337

The QC reported here applies to the following samples:

Method: SW846 8260C

MC47506-9

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	500	ug/kg	
107-13-1	Acrylonitrile	ND	1300	ug/kg	
71-43-2	Benzene	ND	25	ug/kg	
108-86-1	Bromobenzene	ND	250	ug/kg	
75-27-4	Bromodichloromethane	ND	100	ug/kg	
75-25-2	Bromoform	ND	100	ug/kg	
74-83-9	Bromomethane	ND	100	ug/kg	
78-93-3	2-Butanone (MEK)	ND	500	ug/kg	
104-51-8	n-Butylbenzene	ND	250	ug/kg	
135-98-8	sec-Butylbenzene	ND	250	ug/kg	
98-06-6	tert-Butylbenzene	ND	250	ug/kg	
75-15-0	Carbon disulfide	ND	250	ug/kg	
56-23-5	Carbon tetrachloride	ND	100	ug/kg	
108-90-7	Chlorobenzene	ND	100	ug/kg	
75-00-3	Chloroethane	ND	250	ug/kg	
67-66-3	Chloroform	ND	100	ug/kg	
74-87-3	Chloromethane	ND	250	ug/kg	
95-49-8	o-Chlorotoluene	ND	250	ug/kg	
106-43-4	p-Chlorotoluene	ND	250	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	250	ug/kg	
124-48-1	Dibromochloromethane	ND	100	ug/kg	
106-93-4	1,2-Dibromoethane	ND	100	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	100	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	100	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	100	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	100	ug/kg	
75-34-3	1,1-Dichloroethane	ND	100	ug/kg	
107-06-2	1,2-Dichloroethane	ND	100	ug/kg	
75-35-4	1,1-Dichloroethene	ND	100	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	100	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	100	ug/kg	
78-87-5	1,2-Dichloropropane	ND	100	ug/kg	
142-28-9	1,3-Dichloropropane	ND	250	ug/kg	
594-20-7	2,2-Dichloropropane	ND	250	ug/kg	
563-58-6	1,1-Dichloropropene	ND	250	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	100	ug/kg	

Method Blank Summary

Job Number: MC47506

Account: CDRMRHCT CDR Maguire

Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSL4337-MB	L99930.D	1	08/29/16	TB	n/a	n/a	MSL4337

The QC reported here applies to the following samples:

Method: SW846 8260C

MC47506-9

CAS No.	Compound	Result	RL	Units	Q
10061-02-6	trans-1,3-Dichloropropene	ND	100	ug/kg	
100-41-4	Ethylbenzene	ND	100	ug/kg	
76-13-1	Freon 113	ND	250	ug/kg	
87-68-3	Hexachlorobutadiene	ND	250	ug/kg	
591-78-6	2-Hexanone	ND	500	ug/kg	
98-82-8	Isopropylbenzene	ND	250	ug/kg	
99-87-6	p-Isopropyltoluene	ND	250	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	100	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	250	ug/kg	
74-95-3	Methylene bromide	ND	250	ug/kg	
75-09-2	Methylene chloride	ND	100	ug/kg	
91-20-3	Naphthalene	ND	250	ug/kg	
103-65-1	n-Propylbenzene	ND	250	ug/kg	
100-42-5	Styrene	ND	250	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	250	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	100	ug/kg	
127-18-4	Tetrachloroethene	ND	100	ug/kg	
109-99-9	Tetrahydrofuran	ND	500	ug/kg	
108-88-3	Toluene	ND	250	ug/kg	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	250	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	250	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	250	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	100	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	100	ug/kg	
79-01-6	Trichloroethene	ND	100	ug/kg	
75-69-4	Trichlorofluoromethane	ND	100	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	250	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	250	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	250	ug/kg	
75-01-4	Vinyl chloride	ND	100	ug/kg	
	m,p-Xylene	ND	100	ug/kg	
95-47-6	o-Xylene	ND	100	ug/kg	

Method Blank Summary

Job Number: MC47506

Account: CDRMRHCT CDR Maguire

Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSL4337-MB	L99930.D	1	08/29/16	TB	n/a	n/a	MSL4337

The QC reported here applies to the following samples:

Method: SW846 8260C

MC47506-9

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	130% 65-141%
2037-26-5	Toluene-D8	100% 65-129%
460-00-4	4-Bromofluorobenzene	112% 63-137%

Method Blank Summary

Job Number: MC47506

Account: CDRMRHCT CDR Maguire

Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM2884-MB	M80584.D	1	08/29/16	KP	n/a	n/a	MSM2884

The QC reported here applies to the following samples:

Method: SW846 8260C

MC47506-1, MC47506-2, MC47506-3, MC47506-4, MC47506-5, MC47506-7, MC47506-8, MC47506-10, MC47506-11, MC47506-13, MC47506-14, MC47506-15

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	10	ug/kg	
107-13-1	Acrylonitrile	ND	25	ug/kg	
71-43-2	Benzene	ND	0.50	ug/kg	
108-86-1	Bromobenzene	ND	5.0	ug/kg	
75-27-4	Bromodichloromethane	ND	2.0	ug/kg	
75-25-2	Bromoform	ND	2.0	ug/kg	
74-83-9	Bromomethane	ND	2.0	ug/kg	
78-93-3	2-Butanone (MEK)	ND	20	ug/kg	
104-51-8	n-Butylbenzene	ND	5.0	ug/kg	
135-98-8	sec-Butylbenzene	ND	5.0	ug/kg	
98-06-6	tert-Butylbenzene	ND	5.0	ug/kg	
75-15-0	Carbon disulfide	ND	5.0	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.0	ug/kg	
108-90-7	Chlorobenzene	ND	2.0	ug/kg	
75-00-3	Chloroethane	ND	5.0	ug/kg	
67-66-3	Chloroform	ND	2.0	ug/kg	
74-87-3	Chloromethane	ND	5.0	ug/kg	
95-49-8	o-Chlorotoluene	ND	5.0	ug/kg	
106-43-4	p-Chlorotoluene	ND	5.0	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/kg	
124-48-1	Dibromochloromethane	ND	2.0	ug/kg	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	2.0	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	2.0	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	2.0	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.0	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.0	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.0	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.0	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.0	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/kg	
142-28-9	1,3-Dichloropropane	ND	5.0	ug/kg	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/kg	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	ug/kg	

Method Blank Summary

Job Number: MC47506

Account: CDRMRHCT CDR Maguire

Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM2884-MB	M80584.D	1	08/29/16	KP	n/a	n/a	MSM2884

The QC reported here applies to the following samples:

Method: SW846 8260C

MC47506-1, MC47506-2, MC47506-3, MC47506-4, MC47506-5, MC47506-7, MC47506-8, MC47506-10, MC47506-11, MC47506-13, MC47506-14, MC47506-15

CAS No.	Compound	Result	RL	Units	Q
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	ug/kg	
100-41-4	Ethylbenzene	ND	2.0	ug/kg	
76-13-1	Freon 113	ND	5.0	ug/kg	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/kg	
591-78-6	2-Hexanone	ND	10	ug/kg	
98-82-8	Isopropylbenzene	ND	5.0	ug/kg	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/kg	
74-95-3	Methylene bromide	ND	5.0	ug/kg	
75-09-2	Methylene chloride	ND	2.0	ug/kg	
91-20-3	Naphthalene	ND	5.0	ug/kg	
103-65-1	n-Propylbenzene	ND	5.0	ug/kg	
100-42-5	Styrene	ND	5.0	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	ug/kg	
127-18-4	Tetrachloroethene	ND	2.0	ug/kg	
109-99-9	Tetrahydrofuran	ND	10	ug/kg	
108-88-3	Toluene	ND	5.0	ug/kg	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.0	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.0	ug/kg	
79-01-6	Trichloroethene	ND	2.0	ug/kg	
75-69-4	Trichlorofluoromethane	ND	2.0	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/kg	
75-01-4	Vinyl chloride	ND	2.0	ug/kg	
	m,p-Xylene	ND	2.0	ug/kg	
95-47-6	o-Xylene	ND	2.0	ug/kg	

Method Blank Summary

Job Number: MC47506

Account: CDRMRHCT CDR Maguire

Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM2884-MB	M80584.D	1	08/29/16	KP	n/a	n/a	MSM2884

The QC reported here applies to the following samples:

Method: SW846 8260C

MC47506-1, MC47506-2, MC47506-3, MC47506-4, MC47506-5, MC47506-7, MC47506-8, MC47506-10, MC47506-11, MC47506-13, MC47506-14, MC47506-15

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	104% 65-141%
2037-26-5	Toluene-D8	99% 65-129%
460-00-4	4-Bromofluorobenzene	106% 63-137%

Method Blank Summary

Job Number: MC47506

Account: CDRMRHCT CDR Maguire

Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM2885-MB	M80611.D	1	08/30/16	KP	n/a	n/a	MSM2885

The QC reported here applies to the following samples:

Method: SW846 8260C

MC47506-6, MC47506-12

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	10	ug/kg	
107-13-1	Acrylonitrile	ND	25	ug/kg	
71-43-2	Benzene	ND	0.50	ug/kg	
108-86-1	Bromobenzene	ND	5.0	ug/kg	
75-27-4	Bromodichloromethane	ND	2.0	ug/kg	
75-25-2	Bromoform	ND	2.0	ug/kg	
74-83-9	Bromomethane	ND	2.0	ug/kg	
78-93-3	2-Butanone (MEK)	ND	20	ug/kg	
104-51-8	n-Butylbenzene	ND	5.0	ug/kg	
135-98-8	sec-Butylbenzene	ND	5.0	ug/kg	
98-06-6	tert-Butylbenzene	ND	5.0	ug/kg	
75-15-0	Carbon disulfide	ND	5.0	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.0	ug/kg	
108-90-7	Chlorobenzene	ND	2.0	ug/kg	
75-00-3	Chloroethane	ND	5.0	ug/kg	
67-66-3	Chloroform	ND	2.0	ug/kg	
74-87-3	Chloromethane	ND	5.0	ug/kg	
95-49-8	o-Chlorotoluene	ND	5.0	ug/kg	
106-43-4	p-Chlorotoluene	ND	5.0	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/kg	
124-48-1	Dibromochloromethane	ND	2.0	ug/kg	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	2.0	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	2.0	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	2.0	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.0	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.0	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.0	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.0	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.0	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/kg	
142-28-9	1,3-Dichloropropane	ND	5.0	ug/kg	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/kg	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	ug/kg	

Method Blank Summary

Job Number: MC47506

Account: CDRMRHCT CDR Maguire

Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM2885-MB	M80611.D	1	08/30/16	KP	n/a	n/a	MSM2885

The QC reported here applies to the following samples:

Method: SW846 8260C

MC47506-6, MC47506-12

CAS No.	Compound	Result	RL	Units	Q
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	ug/kg	
100-41-4	Ethylbenzene	ND	2.0	ug/kg	
76-13-1	Freon 113	ND	5.0	ug/kg	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/kg	
591-78-6	2-Hexanone	ND	10	ug/kg	
98-82-8	Isopropylbenzene	ND	5.0	ug/kg	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/kg	
74-95-3	Methylene bromide	ND	5.0	ug/kg	
75-09-2	Methylene chloride	ND	2.0	ug/kg	
91-20-3	Naphthalene	ND	5.0	ug/kg	
103-65-1	n-Propylbenzene	ND	5.0	ug/kg	
100-42-5	Styrene	ND	5.0	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	ug/kg	
127-18-4	Tetrachloroethene	ND	2.0	ug/kg	
109-99-9	Tetrahydrofuran	ND	10	ug/kg	
108-88-3	Toluene	ND	5.0	ug/kg	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.0	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.0	ug/kg	
79-01-6	Trichloroethene	ND	2.0	ug/kg	
75-69-4	Trichlorofluoromethane	ND	2.0	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/kg	
75-01-4	Vinyl chloride	ND	2.0	ug/kg	
	m,p-Xylene	ND	2.0	ug/kg	
95-47-6	o-Xylene	ND	2.0	ug/kg	

Method Blank Summary

Job Number: MC47506

Account: CDRMRHCT CDR Maguire

Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM2885-MB	M80611.D	1	08/30/16	KP	n/a	n/a	MSM2885

The QC reported here applies to the following samples:

Method: SW846 8260C

MC47506-6, MC47506-12

CAS No.	Surrogate Recoveries	Limits	
1868-53-7	Dibromofluoromethane	107%	65-141%
2037-26-5	Toluene-D8	103%	65-129%
460-00-4	4-Bromofluorobenzene	107%	63-137%

Blank Spike Summary

Job Number: MC47506

Account: CDRMRHCT CDR Maguire

Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSL4337-BS	L99927.D	1	08/29/16	TB	n/a	n/a	MSL4337

The QC reported here applies to the following samples:

Method: SW846 8260C

MC47506-9

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
67-64-1	Acetone	2500	3060	122	24-179
107-13-1	Acrylonitrile	2500	2860	114	52-159
71-43-2	Benzene	2500	2480	99	73-115
108-86-1	Bromobenzene	2500	2330	93	76-121
75-27-4	Bromodichloromethane	2500	2500	100	76-122
75-25-2	Bromoform	2500	2430	97	67-151
74-83-9	Bromomethane	2500	3350	134	52-139
78-93-3	2-Butanone (MEK)	2500	2700	108	32-151
104-51-8	n-Butylbenzene	2500	2640	106	71-124
135-98-8	sec-Butylbenzene	2500	2310	92	71-124
98-06-6	tert-Butylbenzene	2500	2310	92	66-125
75-15-0	Carbon disulfide	2500	2670	107	57-143
56-23-5	Carbon tetrachloride	2500	2670	107	73-129
108-90-7	Chlorobenzene	2500	2280	91	79-123
75-00-3	Chloroethane	2500	3120	125	51-159
67-66-3	Chloroform	2500	2670	107	72-122
74-87-3	Chloromethane	2500	2520	101	57-143
95-49-8	o-Chlorotoluene	2500	2430	97	68-121
106-43-4	p-Chlorotoluene	2500	2430	97	68-119
96-12-8	1,2-Dibromo-3-chloropropane	2500	2310	92	52-132
124-48-1	Dibromochloromethane	2500	2340	94	74-139
106-93-4	1,2-Dibromoethane	2500	2360	94	76-130
95-50-1	1,2-Dichlorobenzene	2500	2410	96	73-122
541-73-1	1,3-Dichlorobenzene	2500	2400	96	74-119
106-46-7	1,4-Dichlorobenzene	2500	2340	94	75-118
75-71-8	Dichlorodifluoromethane	2500	3070	123	11-183
75-34-3	1,1-Dichloroethane	2500	2610	104	70-128
107-06-2	1,2-Dichloroethane	2500	2730	109	70-126
75-35-4	1,1-Dichloroethene	2500	2690	108	71-136
156-59-2	cis-1,2-Dichloroethene	2500	2810	112	78-128
156-60-5	trans-1,2-Dichloroethene	2500	2450	98	71-131
78-87-5	1,2-Dichloropropane	2500	2450	98	79-124
142-28-9	1,3-Dichloropropane	2500	2450	98	78-128
594-20-7	2,2-Dichloropropane	2500	3070	123	54-145
563-58-6	1,1-Dichloropropene	2500	2650	106	67-125
10061-01-5	cis-1,3-Dichloropropene	2500	2370	95	75-126

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC47506
Account: CDRMRHCT CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSL4337-BS	L99927.D	1	08/29/16	TB	n/a	n/a	MSL4337

The QC reported here applies to the following samples:

Method: SW846 8260C

MC47506-9

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
10061-02-6	trans-1,3-Dichloropropene	2500	2450	98	75-128
100-41-4	Ethylbenzene	2500	2310	92	76-122
76-13-1	Freon 113	2500	2710	108	70-137
87-68-3	Hexachlorobutadiene	2500	2150	86	73-137
591-78-6	2-Hexanone	2500	3610	144	26-169
98-82-8	Isopropylbenzene	2500	2200	88	69-124
99-87-6	p-Isopropyltoluene	2500	2390	96	73-124
1634-04-4	Methyl Tert Butyl Ether	2500	3000	120	58-133
108-10-1	4-Methyl-2-pentanone (MIBK)	2500	2800	112	43-166
74-95-3	Methylene bromide	2500	2450	98	76-125
75-09-2	Methylene chloride	2500	2610	104	74-125
91-20-3	Naphthalene	2500	1980	79	39-158
103-65-1	n-Propylbenzene	2500	2390	96	69-121
100-42-5	Styrene	2500	2300	92	79-124
630-20-6	1,1,1,2-Tetrachloroethane	2500	2360	94	75-136
79-34-5	1,1,2,2-Tetrachloroethane	2500	2300	92	66-134
127-18-4	Tetrachloroethene	2500	2260	90	76-125
109-99-9	Tetrahydrofuran	2500	2700	108	34-177
108-88-3	Toluene	2500	2470	99	76-119
110-57-6	Trans-1,4-Dichloro-2-Butene	2500	2730	109	57-140
87-61-6	1,2,3-Trichlorobenzene	2500	1960	78	52-146
120-82-1	1,2,4-Trichlorobenzene	2500	2120	85	66-133
71-55-6	1,1,1-Trichloroethane	2500	2720	109	70-130
79-00-5	1,1,2-Trichloroethane	2500	2390	96	75-124
79-01-6	Trichloroethene	2500	2400	96	74-127
75-69-4	Trichlorofluoromethane	2500	2590	104	48-156
96-18-4	1,2,3-Trichloropropane	2500	2290	92	65-130
95-63-6	1,2,4-Trimethylbenzene	2500	2470	99	69-119
108-67-8	1,3,5-Trimethylbenzene	2500	2580	103	69-123
75-01-4	Vinyl chloride	2500	2040	82	33-166
	m,p-Xylene	5000	4510	90	78-122
95-47-6	o-Xylene	2500	2270	91	77-123

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC47506
Account: CDRMRHCT CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSL4337-BS	L99927.D	1	08/29/16	TB	n/a	n/a	MSL4337

The QC reported here applies to the following samples:

Method: SW846 8260C

MC47506-9

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	109%	65-141%
2037-26-5	Toluene-D8	98%	65-129%
460-00-4	4-Bromofluorobenzene	96%	63-137%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC47506
Account: CDRMRHCT CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM2884-BS	M80582.D	1	08/29/16	KP	n/a	n/a	MSM2884

The QC reported here applies to the following samples:

Method: SW846 8260C

MC47506-1, MC47506-2, MC47506-3, MC47506-4, MC47506-5, MC47506-7, MC47506-8, MC47506-10, MC47506-11, MC47506-13, MC47506-14, MC47506-15

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
67-64-1	Acetone	50	61.1	122	24-179
107-13-1	Acrylonitrile	50	54.2	108	52-159
71-43-2	Benzene	50	50.8	102	73-115
108-86-1	Bromobenzene	50	52.3	105	76-121
75-27-4	Bromodichloromethane	50	52.6	105	76-122
75-25-2	Bromoform	50	52.5	105	67-151
74-83-9	Bromomethane	50	57.8	116	52-139
78-93-3	2-Butanone (MEK)	50	55.5	111	32-151
104-51-8	n-Butylbenzene	50	55.1	110	71-124
135-98-8	sec-Butylbenzene	50	55.1	110	71-124
98-06-6	tert-Butylbenzene	50	55.9	112	66-125
75-15-0	Carbon disulfide	50	36.6	73	57-143
56-23-5	Carbon tetrachloride	50	51.9	104	73-129
108-90-7	Chlorobenzene	50	52.0	104	79-123
75-00-3	Chloroethane	50	57.2	114	51-159
67-66-3	Chloroform	50	52.8	106	72-122
74-87-3	Chloromethane	50	61.3	123	57-143
95-49-8	o-Chlorotoluene	50	52.9	106	68-121
106-43-4	p-Chlorotoluene	50	52.7	105	68-119
96-12-8	1,2-Dibromo-3-chloropropane	50	50.6	101	52-132
124-48-1	Dibromochloromethane	50	51.7	103	74-139
106-93-4	1,2-Dibromoethane	50	52.7	105	76-130
95-50-1	1,2-Dichlorobenzene	50	52.1	104	73-122
541-73-1	1,3-Dichlorobenzene	50	51.7	103	74-119
106-46-7	1,4-Dichlorobenzene	50	51.1	102	75-118
75-71-8	Dichlorodifluoromethane	50	57.7	115	11-183
75-34-3	1,1-Dichloroethane	50	49.8	100	70-128
107-06-2	1,2-Dichloroethane	50	51.6	103	70-126
75-35-4	1,1-Dichloroethene	50	45.7	91	71-136
156-59-2	cis-1,2-Dichloroethene	50	54.9	110	78-128
156-60-5	trans-1,2-Dichloroethene	50	45.7	91	71-131
78-87-5	1,2-Dichloropropane	50	53.6	107	79-124
142-28-9	1,3-Dichloropropane	50	56.0	112	78-128
594-20-7	2,2-Dichloropropane	50	51.8	104	54-145
563-58-6	1,1-Dichloropropene	50	50.8	102	67-125
10061-01-5	cis-1,3-Dichloropropene	50	52.5	105	75-126

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC47506
Account: CDRMRHCT CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM2884-BS	M80582.D	1	08/29/16	KP	n/a	n/a	MSM2884

The QC reported here applies to the following samples:

Method: SW846 8260C

MC47506-1, MC47506-2, MC47506-3, MC47506-4, MC47506-5, MC47506-7, MC47506-8, MC47506-10, MC47506-11, MC47506-13, MC47506-14, MC47506-15

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
10061-02-6	trans-1,3-Dichloropropene	50	49.5	99	75-128
100-41-4	Ethylbenzene	50	54.2	108	76-122
76-13-1	Freon 113	50	47.9	96	70-137
87-68-3	Hexachlorobutadiene	50	52.5	105	73-137
591-78-6	2-Hexanone	50	62.5	125	26-169
98-82-8	Isopropylbenzene	50	53.4	107	69-124
99-87-6	p-Isopropyltoluene	50	55.4	111	73-124
1634-04-4	Methyl Tert Butyl Ether	50	53.3	107	58-133
108-10-1	4-Methyl-2-pentanone (MIBK)	50	59.1	118	43-166
74-95-3	Methylene bromide	50	51.4	103	76-125
75-09-2	Methylene chloride	50	47.3	95	74-125
91-20-3	Naphthalene	50	49.5	99	39-158
103-65-1	n-Propylbenzene	50	52.2	104	69-121
100-42-5	Styrene	50	54.5	109	79-124
630-20-6	1,1,1,2-Tetrachloroethane	50	55.3	111	75-136
79-34-5	1,1,2,2-Tetrachloroethane	50	53.7	107	66-134
127-18-4	Tetrachloroethene	50	50.0	100	76-125
109-99-9	Tetrahydrofuran	50	49.6	99	34-177
108-88-3	Toluene	50	52.0	104	76-119
110-57-6	Trans-1,4-Dichloro-2-Butene	50	53.1	106	57-140
87-61-6	1,2,3-Trichlorobenzene	50	52.9	106	52-146
120-82-1	1,2,4-Trichlorobenzene	50	51.2	102	66-133
71-55-6	1,1,1-Trichloroethane	50	54.0	108	70-130
79-00-5	1,1,2-Trichloroethane	50	54.8	110	75-124
79-01-6	Trichloroethene	50	51.1	102	74-127
75-69-4	Trichlorofluoromethane	50	51.0	102	48-156
96-18-4	1,2,3-Trichloropropane	50	52.1	104	65-130
95-63-6	1,2,4-Trimethylbenzene	50	53.3	107	69-119
108-67-8	1,3,5-Trimethylbenzene	50	56.2	112	69-123
75-01-4	Vinyl chloride	50	49.0	98	33-166
	m,p-Xylene	100	109	109	78-122
95-47-6	o-Xylene	50	54.7	109	77-123

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC47506
Account: CDRMRHCT CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM2884-BS	M80582.D	1	08/29/16	KP	n/a	n/a	MSM2884

The QC reported here applies to the following samples:

Method: SW846 8260C

MC47506-1, MC47506-2, MC47506-3, MC47506-4, MC47506-5, MC47506-7, MC47506-8, MC47506-10, MC47506-11, MC47506-13, MC47506-14, MC47506-15

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	102%	65-141%
2037-26-5	Toluene-D8	100%	65-129%
460-00-4	4-Bromofluorobenzene	96%	63-137%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC47506
Account: CDRMRHCT CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM2885-BS	M80609.D	1	08/30/16	KP	n/a	n/a	MSM2885

The QC reported here applies to the following samples:

Method: SW846 8260C

MC47506-6, MC47506-12

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
67-64-1	Acetone	50	57.4	115	24-179
107-13-1	Acrylonitrile	50	53.5	107	52-159
71-43-2	Benzene	50	52.5	105	73-115
108-86-1	Bromobenzene	50	52.5	105	76-121
75-27-4	Bromodichloromethane	50	53.9	108	76-122
75-25-2	Bromoform	50	50.9	102	67-151
74-83-9	Bromomethane	50	61.9	124	52-139
78-93-3	2-Butanone (MEK)	50	45.7	91	32-151
104-51-8	n-Butylbenzene	50	57.0	114	71-124
135-98-8	sec-Butylbenzene	50	56.1	112	71-124
98-06-6	tert-Butylbenzene	50	56.4	113	66-125
75-15-0	Carbon disulfide	50	37.7	75	57-143
56-23-5	Carbon tetrachloride	50	53.3	107	73-129
108-90-7	Chlorobenzene	50	52.3	105	79-123
75-00-3	Chloroethane	50	57.3	115	51-159
67-66-3	Chloroform	50	55.0	110	72-122
74-87-3	Chloromethane	50	61.0	122	57-143
95-49-8	o-Chlorotoluene	50	54.1	108	68-121
106-43-4	p-Chlorotoluene	50	54.2	108	68-119
96-12-8	1,2-Dibromo-3-chloropropane	50	49.4	99	52-132
124-48-1	Dibromochloromethane	50	51.6	103	74-139
106-93-4	1,2-Dibromoethane	50	52.5	105	76-130
95-50-1	1,2-Dichlorobenzene	50	53.9	108	73-122
541-73-1	1,3-Dichlorobenzene	50	53.3	107	74-119
106-46-7	1,4-Dichlorobenzene	50	52.3	105	75-118
75-71-8	Dichlorodifluoromethane	50	52.2	104	11-183
75-34-3	1,1-Dichloroethane	50	51.1	102	70-128
107-06-2	1,2-Dichloroethane	50	52.5	105	70-126
75-35-4	1,1-Dichloroethene	50	45.5	91	71-136
156-59-2	cis-1,2-Dichloroethene	50	56.2	112	78-128
156-60-5	trans-1,2-Dichloroethene	50	47.5	95	71-131
78-87-5	1,2-Dichloropropane	50	53.3	107	79-124
142-28-9	1,3-Dichloropropane	50	56.0	112	78-128
594-20-7	2,2-Dichloropropane	50	54.7	109	54-145
563-58-6	1,1-Dichloropropene	50	52.7	105	67-125
10061-01-5	cis-1,3-Dichloropropene	50	52.5	105	75-126

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC47506
Account: CDRMRHCT CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM2885-BS	M80609.D	1	08/30/16	KP	n/a	n/a	MSM2885

The QC reported here applies to the following samples:

Method: SW846 8260C

MC47506-6, MC47506-12

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
10061-02-6	trans-1,3-Dichloropropene	50	50.0	100	75-128
100-41-4	Ethylbenzene	50	55.2	110	76-122
76-13-1	Freon 113	50	50.1	100	70-137
87-68-3	Hexachlorobutadiene	50	52.8	106	73-137
591-78-6	2-Hexanone	50	60.4	121	26-169
98-82-8	Isopropylbenzene	50	54.5	109	69-124
99-87-6	p-Isopropyltoluene	50	56.4	113	73-124
1634-04-4	Methyl Tert Butyl Ether	50	53.2	106	58-133
108-10-1	4-Methyl-2-pentanone (MIBK)	50	56.8	114	43-166
74-95-3	Methylene bromide	50	51.8	104	76-125
75-09-2	Methylene chloride	50	49.1	98	74-125
91-20-3	Naphthalene	50	47.6	95	39-158
103-65-1	n-Propylbenzene	50	53.9	108	69-121
100-42-5	Styrene	50	55.3	111	79-124
630-20-6	1,1,1,2-Tetrachloroethane	50	55.0	110	75-136
79-34-5	1,1,2,2-Tetrachloroethane	50	53.6	107	66-134
127-18-4	Tetrachloroethene	50	50.5	101	76-125
109-99-9	Tetrahydrofuran	50	47.2	94	34-177
108-88-3	Toluene	50	53.0	106	76-119
110-57-6	Trans-1,4-Dichloro-2-Butene	50	53.1	106	57-140
87-61-6	1,2,3-Trichlorobenzene	50	52.6	105	52-146
120-82-1	1,2,4-Trichlorobenzene	50	51.5	103	66-133
71-55-6	1,1,1-Trichloroethane	50	56.2	112	70-130
79-00-5	1,1,2-Trichloroethane	50	55.2	110	75-124
79-01-6	Trichloroethene	50	53.1	106	74-127
75-69-4	Trichlorofluoromethane	50	52.5	105	48-156
96-18-4	1,2,3-Trichloropropane	50	51.7	103	65-130
95-63-6	1,2,4-Trimethylbenzene	50	55.2	110	69-119
108-67-8	1,3,5-Trimethylbenzene	50	57.3	115	69-123
75-01-4	Vinyl chloride	50	47.9	96	33-166
	m,p-Xylene	100	111	111	78-122
95-47-6	o-Xylene	50	54.8	110	77-123

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC47506

Account: CDRMRHCT CDR Maguire

Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM2885-BS	M80609.D	1	08/30/16	KP	n/a	n/a	MSM2885

The QC reported here applies to the following samples:

Method: SW846 8260C

MC47506-6, MC47506-12

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	102%	65-141%
2037-26-5	Toluene-D8	101%	65-129%
460-00-4	4-Bromofluorobenzene	93%	63-137%

* = Outside of Control Limits.

Volatile Internal Standard Area Summary

Job Number: MC47506
Account: CDRMRHCT CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Check Std: MSL4337-CC4322	Injection Date: 08/29/16
Lab File ID: L99926.D	Injection Time: 11:38
Instrument ID: GCMSL	Method: SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	134127	9.56	209556	10.45	119017	13.65	129655	16.23	50625	7.55
Upper Limit ^a	268254	10.06	419112	10.95	238034	14.15	259310	16.73	101250	8.05
Lower Limit ^b	67064	9.06	104778	9.95	59509	13.15	64828	15.73	25313	7.05

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSL4336-BS1	142674	9.56	224251	10.45	128392	13.66	134227	16.23	56933	7.55
MSL4337-BS	142674	9.56	224251	10.45	128392	13.66	134227	16.23	56933	7.55
MSL4336-MB1	93605	9.57	157538	10.46	89965	13.66	71054	16.23	33441	7.53
MSL4337-MB	93605	9.57	157538	10.46	89965	13.66	71054	16.23	33441	7.53
ZZZZZZ	103701	9.56	167332	10.45	92520	13.66	77678	16.23	37684	7.55
ZZZZZZ	100330	9.56	165580	10.46	94337	13.66	85197	16.23	37949	7.55
ZZZZZZ	90823	9.56	161067	10.45	93931	13.66	102889	16.23	33411	7.55
ZZZZZZ	112605	9.56	179887	10.45	101945	13.66	103799	16.23	45138	7.55
ZZZZZZ	127469	9.56	202303	10.46	113721	13.66	110820	16.23	44219	7.55
ZZZZZZ	126767	9.57	201398	10.46	110522	13.66	96036	16.23	40605	7.54
ZZZZZZ	117769	9.56	184353	10.45	103590	13.66	90272	16.23	38498	7.54
MC47369-22	100315	9.56	177373	10.46	97484	13.66	83941	16.23	31689	7.54
ZZZZZZ	101635	9.56	166948	10.45	88981	13.66	92237	16.23	32820	7.54
ZZZZZZ	105315	9.56	166871	10.45	93000	13.66	82079	16.23	29861	7.54
ZZZZZZ	99325	9.56	159194	10.45	88751	13.66	76474	16.23	27762	7.54
ZZZZZZ	86629	9.56	159813	10.45	90722	13.66	86989	16.23	26843	7.54
ZZZZZZ	98505	9.56	160026	10.45	90873	13.66	78728	16.23	27391	7.54
MC47506-9	100825	9.56	162531	10.45	90123	13.66	80113	16.23	26558	7.56
ZZZZZZ	96243	9.56	160257	10.45	107158	13.66	121042	16.23	21983 ^c	7.54
ZZZZZZ	183587	9.56	283142	10.45	166540	13.66	171082	16.23	45759	7.54
MC47369-6MSD	223785	9.56	338787	10.45	191245	13.66	194333	16.23	52336	7.54
MC47369-22MS	239715	9.56	354756	10.45	203409	13.66	199159	16.23	56446	7.54
MC47369-22MSD	238894	9.56	353474	10.45	200232	13.66	198117	16.23	57503	7.54

- IS 1 = Pentafluorobenzene
- IS 2 = 1,4-Difluorobenzene
- IS 3 = Chlorobenzene-D5
- IS 4 = 1,4-Dichlorobenzene-d4
- IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
 (c) Outside control limits. Target analytes not associated with this internal standard.

6.3.1
6

Volatile Internal Standard Area Summary

Job Number: MC47506
Account: CDRMRHCT CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Check Std: MSM2884-CC2881	Injection Date: 08/29/16
Lab File ID: M80581.D	Injection Time: 12:10
Instrument ID: GCMSM	Method: SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	71606	9.77	120697	10.68	54603	13.90	65357	16.49	44552	7.69
Upper Limit ^a	143212	10.27	241394	11.18	109206	14.40	130714	16.99	89104	8.19
Lower Limit ^b	35803	9.27	60349	10.18	27302	13.40	32679	15.99	22276	7.19

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSM2884-BS	67074	9.77	111749	10.67	51249	13.90	62574	16.49	44983	7.68
MSM2884-MB	59946	9.77	98844	10.68	45746	13.90	49357	16.49	42380	7.68
MC47493-1	58126	9.77	94637	10.67	44326	13.90	46501	16.49	66911	7.68
ZZZZZZ	62390	9.77	105196	10.67	49890	13.90	51909	16.49	67970	7.68
ZZZZZZ	58968	9.77	97727	10.68	46467	13.90	51124	16.49	64307	7.68
ZZZZZZ	61912	9.77	102334	10.68	44630	13.90	42109	16.49	71053	7.69
MC47506-1	57777	9.77	96067	10.67	45211	13.90	50753	16.49	55451	7.68
MC47506-2	61114	9.77	101244	10.67	47158	13.90	53349	16.49	68926	7.69
MC47506-3	62193	9.77	102670	10.68	48587	13.90	55265	16.49	78391	7.68
MC47506-4	57499	9.77	95309	10.67	44815	13.90	49949	16.49	79686	7.68
MC47506-5	54162	9.77	88524	10.68	41305	13.90	47225	16.49	59640	7.68
MC47506-7	59562	9.77	97584	10.68	44953	13.90	42611	16.49	73590	7.69
MC47506-8	56265	9.77	92375	10.67	43363	13.90	47075	16.49	66707	7.68
MC47506-10	56851	9.77	92321	10.67	43690	13.90	47718	16.49	63084	7.68
MC47506-11	55727	9.77	91620	10.67	43815	13.90	46812	16.49	61957	7.68
MC47506-13	57624	9.77	92574	10.67	42227	13.90	39300	16.49	50478	7.68
MC47506-14	55674	9.77	89098	10.67	40772	13.90	33862	16.49	55066	7.68
MC47506-15	53595	9.77	87289	10.67	40668	13.90	38905	16.49	55091	7.68
MC47493-1MSD	53927	9.77	88063	10.67	39386	13.90	41394	16.49	27831	7.69

- IS 1** = Pentafluorobenzene
- IS 2** = 1,4-Difluorobenzene
- IS 3** = Chlorobenzene-D5
- IS 4** = 1,4-Dichlorobenzene-d4
- IS 5** = Tert Butyl Alcohol-D9

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

6.3.2
6

Volatile Internal Standard Area Summary

Job Number: MC47506
Account: CDRMRHCT CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Check Std: MSM2885-CC2881	Injection Date: 08/30/16
Lab File ID: M80608.D	Injection Time: 11:49
Instrument ID: GCMSM	Method: SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	64805	9.77	108082	10.68	50756	13.90	59602	16.49	35908	7.69
Upper Limit ^a	129610	10.27	216164	11.18	101512	14.40	119204	16.99	71816	8.19
Lower Limit ^b	32403	9.27	54041	10.18	25378	13.40	29801	15.99	17954	7.19

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSM2884-BS1	64568	9.77	107678	10.67	50169	13.90	60918	16.49	37834	7.69
MSM2885-BS	64568	9.77	107678	10.67	50169	13.90	60918	16.49	37834	7.69
MSM2884-MB1	57423	9.77	94500	10.67	44763	13.90	47334	16.49	38652	7.68
MSM2885-MB	57423	9.77	94500	10.67	44763	13.90	47334	16.49	38652	7.68
MC47506-2 ^c	57172	9.77	91937	10.67	45259	13.90	49566	16.49	64653	7.68
MC47506-6	56126	9.77	91342	10.68	43263	13.90	44612	16.49	56822	7.69
MC47506-12	55824	9.77	93224	10.67	44262	13.90	47155	16.49	60911	7.69
MC47493-1MS	43308	9.77	72372	10.67	34072	13.90	37703	16.49	27463	7.68
ZZZZZZ	54360	9.77	89214	10.67	42862	13.90	45519	16.49	64994	7.68
ZZZZZZ	52334	9.77	86374	10.67	41595	13.90	43804	16.49	61948	7.68
ZZZZZZ	54591	9.77	88294	10.67	42516	13.90	44117	16.49	62750	7.68
ZZZZZZ	55831	9.77	91586	10.68	43479	13.90	46034	16.49	60667	7.69
ZZZZZZ	54287	9.77	89877	10.68	42727	13.90	44806	16.49	61204	7.68
ZZZZZZ	51974	9.77	84914	10.67	40789	13.90	43324	16.49	59235	7.69
ZZZZZZ	53129	9.77	87338	10.68	42484	13.90	43666	16.49	62131	7.68
ZZZZZZ	52850	9.77	86960	10.67	41426	13.90	44323	16.49	57890	7.68
MC47543-1	53169	9.77	88188	10.67	42365	13.90	43839	16.49	37216	7.68
ZZZZZZ	52266	9.77	86668	10.68	41540	13.90	43615	16.49	41399	7.68
ZZZZZZ	54296	9.77	88016	10.68	41241	13.90	40104	16.49	33638	7.69
MC47543-1MS	59280	9.77	98734	10.67	45127	13.90	50645	16.49	34559	7.69
MC47543-1MSD	60538	9.77	100118	10.67	45012	13.90	51063	16.49	37424	7.69
ZZZZZZ	55649	9.77	90757	10.67	42529	13.90	45105	16.49	57445	7.68

- IS 1 = Pentafluorobenzene
- IS 2 = 1,4-Difluorobenzene
- IS 3 = Chlorobenzene-D5
- IS 4 = 1,4-Dichlorobenzene-d4
- IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
 (c) Confirmation run for surrogate recoveries.

Volatile Surrogate Recovery Summary

Job Number: MC47506

Account: CDRMRHCT CDR Maguire

Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Method: SW846 8260C

Matrix: SO

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC47506-1	M80589.D	69	100	104
MC47506-2	M80612.D	60* a	105	105
MC47506-2	M80590.D	52* a	99	104
MC47506-3	M80591.D	73	100	101
MC47506-4	M80592.D	107	100	103
MC47506-5	M80593.D	90	101	103
MC47506-6	M80613.D	107	101	109
MC47506-7	M80595.D	109	100	117
MC47506-8	M80596.D	108	100	107
MC47506-9	L99944.D	119	98	103
MC47506-10	M80597.D	108	101	105
MC47506-11	M80598.D	108	101	108
MC47506-12	M80614.D	109	103	107
MC47506-13	M80600.D	106	101	114
MC47506-14	M80601.D	109	103	124
MC47506-15	M80602.D	111	102	115
MSL4337-BS	L99927.D	109	98	96
MSL4337-MB	L99930.D	130	100	112
MSM2884-BS	M80582.D	102	100	96
MSM2884-MB	M80584.D	104	99	106
MSM2885-BS	M80609.D	102	101	93
MSM2885-MB	M80611.D	107	103	107

Surrogate Compounds

Recovery Limits

S1 = Dibromofluoromethane	65-141%
S2 = Toluene-D8	65-129%
S3 = 4-Bromofluorobenzene	63-137%

(a) Outside control limits due to possible matrix interference. Confirmed by reanalysis.

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC47506

Account: CDRMRHCT CDR Maguire

Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP48551-MB	W29651.D	1	08/29/16	MR	08/28/16	OP48551	MSW1195

The QC reported here applies to the following samples:

Method: SW846 8270D

MC47506-15

CAS No.	Compound	Result	RL	Units	Q
95-57-8	2-Chlorophenol	ND	240	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	480	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	480	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	480	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	480	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	480	ug/kg	
95-48-7	2-Methylphenol	ND	480	ug/kg	
106-44-5	4-Methylphenol	ND	480	ug/kg	
88-75-5	2-Nitrophenol	ND	480	ug/kg	
100-02-7	4-Nitrophenol	ND	480	ug/kg	
87-86-5	Pentachlorophenol	ND	480	ug/kg	
108-95-2	Phenol	ND	240	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	480	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	480	ug/kg	
83-32-9	Acenaphthene	ND	95	ug/kg	
208-96-8	Acenaphthylene	ND	95	ug/kg	
62-53-3	Aniline	ND	480	ug/kg	
120-12-7	Anthracene	ND	95	ug/kg	
56-55-3	Benzo(a)anthracene	ND	95	ug/kg	
50-32-8	Benzo(a)pyrene	ND	240	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	95	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	95	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	95	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	240	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	240	ug/kg	
91-58-7	2-Chloronaphthalene	ND	240	ug/kg	
106-47-8	4-Chloroaniline	ND	480	ug/kg	
86-74-8	Carbazole	ND	95	ug/kg	
218-01-9	Chrysene	ND	95	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	240	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	240	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	240	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	240	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	480	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	480	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	480	ug/kg	

Method Blank Summary

Job Number: MC47506

Account: CDRMRHCT CDR Maguire

Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP48551-MB	W29651.D	1	08/29/16	MR	08/28/16	OP48551	MSW1195

The QC reported here applies to the following samples:

Method: SW846 8270D

MC47506-15

CAS No.	Compound	Result	RL	Units	Q
53-70-3	Dibenzo(a,h)anthracene	ND	95	ug/kg	
132-64-9	Dibenzofuran	ND	95	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	240	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	240	ug/kg	
84-66-2	Diethyl phthalate	ND	240	ug/kg	
131-11-3	Dimethyl phthalate	ND	240	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	240	ug/kg	
206-44-0	Fluoranthene	ND	95	ug/kg	
86-73-7	Fluorene	ND	95	ug/kg	
118-74-1	Hexachlorobenzene	ND	240	ug/kg	
87-68-3	Hexachlorobutadiene	ND	240	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	480	ug/kg	
67-72-1	Hexachloroethane	ND	240	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	240	ug/kg	
78-59-1	Isophorone	ND	240	ug/kg	
91-57-6	2-Methylnaphthalene	ND	95	ug/kg	
88-74-4	2-Nitroaniline	ND	480	ug/kg	
99-09-2	3-Nitroaniline	ND	480	ug/kg	
100-01-6	4-Nitroaniline	ND	480	ug/kg	
91-20-3	Naphthalene	ND	95	ug/kg	
98-95-3	Nitrobenzene	ND	240	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	240	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	240	ug/kg	
82-68-8	Pentachloronitrobenzene	ND	480	ug/kg	
85-01-8	Phenanthrene	ND	95	ug/kg	
129-00-0	Pyrene	ND	95	ug/kg	
110-86-1	Pyridine	ND	480	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	480	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	240	ug/kg	

CAS No.	Surrogate Recoveries	Limits	
367-12-4	2-Fluorophenol	80%	25-109%
4165-62-2	Phenol-d5	79%	29-113%
118-79-6	2,4,6-Tribromophenol	105%	20-141%

Method Blank Summary

Job Number: MC47506

Account: CDRMRHCT CDR Maguire

Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP48551-MB	W29651.D	1	08/29/16	MR	08/28/16	OP48551	MSW1195

The QC reported here applies to the following samples:

Method: SW846 8270D

MC47506-15

CAS No.	Surrogate Recoveries	Limits
4165-60-0	Nitrobenzene-d5	83% 27-115%
321-60-8	2-Fluorobiphenyl	86% 34-118%
1718-51-0	Terphenyl-d14	99% 42-139%

Method Blank Summary

Job Number: MC47506

Account: CDRMRHCT CDR Maguire

Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP48552-MB	X12343.D	1	08/30/16	AA	08/28/16	OP48552	MSX413

The QC reported here applies to the following samples:

Method: SW846 8270D

MC47506-1, MC47506-2, MC47506-3, MC47506-4, MC47506-5, MC47506-6, MC47506-7, MC47506-8, MC47506-9, MC47506-10, MC47506-11, MC47506-12, MC47506-13, MC47506-14

CAS No.	Compound	Result	RL	Units	Q
95-57-8	2-Chlorophenol	ND	240	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	490	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	490	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	490	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	490	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	490	ug/kg	
95-48-7	2-Methylphenol	ND	490	ug/kg	
106-44-5	4-Methylphenol	ND	490	ug/kg	
88-75-5	2-Nitrophenol	ND	490	ug/kg	
100-02-7	4-Nitrophenol	ND	490	ug/kg	
87-86-5	Pentachlorophenol	ND	490	ug/kg	
108-95-2	Phenol	ND	240	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	490	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	490	ug/kg	
83-32-9	Acenaphthene	ND	98	ug/kg	
208-96-8	Acenaphthylene	ND	98	ug/kg	
62-53-3	Aniline	ND	490	ug/kg	
120-12-7	Anthracene	ND	98	ug/kg	
56-55-3	Benzo(a)anthracene	ND	98	ug/kg	
50-32-8	Benzo(a)pyrene	ND	240	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	98	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	98	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	98	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	240	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	240	ug/kg	
91-58-7	2-Chloronaphthalene	ND	240	ug/kg	
106-47-8	4-Chloroaniline	ND	490	ug/kg	
86-74-8	Carbazole	ND	98	ug/kg	
218-01-9	Chrysene	ND	98	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	240	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	240	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	240	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	240	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	490	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	490	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	490	ug/kg	

Method Blank Summary

Job Number: MC47506
Account: CDRMRHCT CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP48552-MB	X12343.D	1	08/30/16	AA	08/28/16	OP48552	MSX413

The QC reported here applies to the following samples:

Method: SW846 8270D

MC47506-1, MC47506-2, MC47506-3, MC47506-4, MC47506-5, MC47506-6, MC47506-7, MC47506-8, MC47506-9, MC47506-10, MC47506-11, MC47506-12, MC47506-13, MC47506-14

CAS No.	Compound	Result	RL	Units	Q
53-70-3	Dibenzo(a,h)anthracene	ND	98	ug/kg	
132-64-9	Dibenzofuran	ND	98	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	240	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	240	ug/kg	
84-66-2	Diethyl phthalate	ND	240	ug/kg	
131-11-3	Dimethyl phthalate	ND	240	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	240	ug/kg	
206-44-0	Fluoranthene	ND	98	ug/kg	
86-73-7	Fluorene	ND	98	ug/kg	
118-74-1	Hexachlorobenzene	ND	240	ug/kg	
87-68-3	Hexachlorobutadiene	ND	240	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	490	ug/kg	
67-72-1	Hexachloroethane	ND	240	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	240	ug/kg	
78-59-1	Isophorone	ND	240	ug/kg	
91-57-6	2-Methylnaphthalene	ND	98	ug/kg	
88-74-4	2-Nitroaniline	ND	490	ug/kg	
99-09-2	3-Nitroaniline	ND	490	ug/kg	
100-01-6	4-Nitroaniline	ND	490	ug/kg	
91-20-3	Naphthalene	ND	98	ug/kg	
98-95-3	Nitrobenzene	ND	240	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	240	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	240	ug/kg	
82-68-8	Pentachloronitrobenzene	ND	490	ug/kg	
85-01-8	Phenanthrene	ND	98	ug/kg	
129-00-0	Pyrene	ND	98	ug/kg	
110-86-1	Pyridine	ND	490	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	490	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	240	ug/kg	

CAS No.	Surrogate Recoveries	Limits	
367-12-4	2-Fluorophenol	71%	25-109%
4165-62-2	Phenol-d5	75%	29-113%
118-79-6	2,4,6-Tribromophenol	91%	20-141%

Method Blank Summary

Job Number: MC47506

Account: CDRMRHCT CDR Maguire

Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP48552-MB	X12343.D	1	08/30/16	AA	08/28/16	OP48552	MSX413

The QC reported here applies to the following samples:

Method: SW846 8270D

MC47506-1, MC47506-2, MC47506-3, MC47506-4, MC47506-5, MC47506-6, MC47506-7, MC47506-8, MC47506-9, MC47506-10, MC47506-11, MC47506-12, MC47506-13, MC47506-14

CAS No.	Surrogate Recoveries	Limits
4165-60-0	Nitrobenzene-d5	65% 27-115%
321-60-8	2-Fluorobiphenyl	71% 34-118%
1718-51-0	Terphenyl-d14	91% 42-139%

Blank Spike Summary

Job Number: MC47506

Account: CDRMRHCT CDR Maguire

Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP48551-BS	W29652.D	1	08/29/16	MR	08/28/16	OP48551	MSW1195

The QC reported here applies to the following samples:

Method: SW846 8270D

MC47506-15

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
95-57-8	2-Chlorophenol	2460	2060	84	39-104
59-50-7	4-Chloro-3-methyl phenol	2460	2360	96	51-110
120-83-2	2,4-Dichlorophenol	2460	2110	86	47-109
105-67-9	2,4-Dimethylphenol	2460	2210	90	43-105
51-28-5	2,4-Dinitrophenol	2460	4120	167* a	10-130
534-52-1	4,6-Dinitro-o-cresol	2460	3970	161* a	16-140
95-48-7	2-Methylphenol	2460	2030	82	40-105
106-44-5	4-Methylphenol	4930	4170	85	38-114
88-75-5	2-Nitrophenol	2460	2570	104	41-112
100-02-7	4-Nitrophenol	2460	2710	110	28-134
87-86-5	Pentachlorophenol	2460	2470	100	22-123
108-95-2	Phenol	2460	2030	82	40-107
95-95-4	2,4,5-Trichlorophenol	2460	2210	90	54-115
88-06-2	2,4,6-Trichlorophenol	2460	2250	91	51-110
83-32-9	Acenaphthene	2460	2230	90	49-108
208-96-8	Acenaphthylene	2460	1710	69	37-102
62-53-3	Aniline	2460	1360	55	10-90
120-12-7	Anthracene	2460	2040	83	54-111
56-55-3	Benzo(a)anthracene	2460	2230	90	56-117
50-32-8	Benzo(a)pyrene	2460	2060	84	57-117
205-99-2	Benzo(b)fluoranthene	2460	2110	86	55-122
191-24-2	Benzo(g,h,i)perylene	2460	2030	82	52-123
207-08-9	Benzo(k)fluoranthene	2460	2080	84	54-117
101-55-3	4-Bromophenyl phenyl ether	2460	2130	86	54-118
85-68-7	Butyl benzyl phthalate	2460	2830	115	54-121
91-58-7	2-Chloronaphthalene	2460	2080	84	46-114
106-47-8	4-Chloroaniline	2460	1160	47	12-88
86-74-8	Carbazole	2460	2290	93	56-116
218-01-9	Chrysene	2460	2130	86	56-114
111-91-1	bis(2-Chloroethoxy)methane	2460	1860	75	41-106
111-44-4	bis(2-Chloroethyl)ether	2460	1960	80	28-113
108-60-1	bis(2-Chloroisopropyl)ether	2460	2200	89	30-132
7005-72-3	4-Chlorophenyl phenyl ether	2460	2020	82	54-114
121-14-2	2,4-Dinitrotoluene	2460	2650	108	50-121
606-20-2	2,6-Dinitrotoluene	2460	2550	103	52-115
91-94-1	3,3'-Dichlorobenzidine	2460	1530	62	17-120

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC47506

Account: CDRMRHCT CDR Maguire

Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP48551-BS	W29652.D	1	08/29/16	MR	08/28/16	OP48551	MSW1195

The QC reported here applies to the following samples:

Method: SW846 8270D

MC47506-15

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
53-70-3	Dibenzo(a,h)anthracene	2460	2000	81	54-121
132-64-9	Dibenzofuran	2460	2160	88	52-109
84-74-2	Di-n-butyl phthalate	2460	2480	101	55-113
117-84-0	Di-n-octyl phthalate	2460	2520	102	53-126
84-66-2	Diethyl phthalate	2460	2360	96	54-111
131-11-3	Dimethyl phthalate	2460	2220	90	53-111
117-81-7	bis(2-Ethylhexyl)phthalate	2460	2530	103	55-125
206-44-0	Fluoranthene	2460	2150	87	55-116
86-73-7	Fluorene	2460	2240	91	52-111
118-74-1	Hexachlorobenzene	2460	2060	84	52-117
87-68-3	Hexachlorobutadiene	2460	1720	70	36-108
77-47-4	Hexachlorocyclopentadiene	2460	1520	62	10-99
67-72-1	Hexachloroethane	2460	1990	81	33-100
193-39-5	Indeno(1,2,3-cd)pyrene	2460	1980	80	55-120
78-59-1	Isophorone	2460	1900	77	37-101
91-57-6	2-Methylnaphthalene	2460	2040	83	38-114
88-74-4	2-Nitroaniline	2460	2700	110	55-120
99-09-2	3-Nitroaniline	2460	1980	80	31-103
100-01-6	4-Nitroaniline	2460	2480	101	50-112
91-20-3	Naphthalene	2460	1940	79	27-128
98-95-3	Nitrobenzene	2460	2170	88	33-108
621-64-7	N-Nitroso-di-n-propylamine	2460	2050	83	37-112
86-30-6	N-Nitrosodiphenylamine	2460	2080	84	47-114
82-68-8	Pentachloronitrobenzene	2460	2330	95	50-125
85-01-8	Phenanthrene	2460	2120	86	54-112
129-00-0	Pyrene	2460	2260	92	54-118
110-86-1	Pyridine	2460	1190	48	23-81
95-94-3	1,2,4,5-Tetrachlorobenzene	2460	1770	72	43-113
120-82-1	1,2,4-Trichlorobenzene	2460	1760	71	38-105

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	83%	25-109%
4165-62-2	Phenol-d5	83%	29-113%
118-79-6	2,4,6-Tribromophenol	110%	20-141%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC47506
Account: CDRMRHCT CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP48551-BS	W29652.D	1	08/29/16	MR	08/28/16	OP48551	MSW1195

The QC reported here applies to the following samples:

Method: SW846 8270D

MC47506-15

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	88%	27-115%
321-60-8	2-Fluorobiphenyl	88%	34-118%
1718-51-0	Terphenyl-d14	98%	42-139%

(a) Outside control limits. Associated samples are not reported for this compound.

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC47506

Account: CDRMRHCT CDR Maguire

Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP48552-BS	X12344.D	1	08/30/16	AA	08/28/16	OP48552	MSX413

The QC reported here applies to the following samples:

Method: SW846 8270D

MC47506-1, MC47506-2, MC47506-3, MC47506-4, MC47506-5, MC47506-6, MC47506-7, MC47506-8, MC47506-9, MC47506-10, MC47506-11, MC47506-12, MC47506-13, MC47506-14

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
95-57-8	2-Chlorophenol	2490	1960	79	39-104
59-50-7	4-Chloro-3-methyl phenol	2490	2060	83	51-110
120-83-2	2,4-Dichlorophenol	2490	2150	86	47-109
105-67-9	2,4-Dimethylphenol	2490	2080	84	43-105
51-28-5	2,4-Dinitrophenol	2490	1600	64	10-130
534-52-1	4,6-Dinitro-o-cresol	2490	2160	87	16-140
95-48-7	2-Methylphenol	2490	1960	79	40-105
106-44-5	4-Methylphenol	4980	4050	81	38-114
88-75-5	2-Nitrophenol	2490	2000	80	41-112
100-02-7	4-Nitrophenol	2490	2140	86	28-134
87-86-5	Pentachlorophenol	2490	1680	67	22-123
108-95-2	Phenol	2490	2100	84	40-107
95-95-4	2,4,5-Trichlorophenol	2490	2210	89	54-115
88-06-2	2,4,6-Trichlorophenol	2490	2270	91	51-110
83-32-9	Acenaphthene	2490	1960	79	49-108
208-96-8	Acenaphthylene	2490	1530	61	37-102
62-53-3	Aniline	2490	1310	53	10-90
120-12-7	Anthracene	2490	2030	82	54-111
56-55-3	Benzo(a)anthracene	2490	2000	80	56-117
50-32-8	Benzo(a)pyrene	2490	1860	75	57-117
205-99-2	Benzo(b)fluoranthene	2490	1760	71	55-122
191-24-2	Benzo(g,h,i)perylene	2490	2320	93	52-123
207-08-9	Benzo(k)fluoranthene	2490	1700	68	54-117
101-55-3	4-Bromophenyl phenyl ether	2490	2290	92	54-118
85-68-7	Butyl benzyl phthalate	2490	1770	71	54-121
91-58-7	2-Chloronaphthalene	2490	2000	80	46-114
106-47-8	4-Chloroaniline	2490	1220	49	12-88
86-74-8	Carbazole	2490	2190	88	56-116
218-01-9	Chrysene	2490	1930	78	56-114
111-91-1	bis(2-Chloroethoxy)methane	2490	1970	79	41-106
111-44-4	bis(2-Chloroethyl)ether	2490	1720	69	28-113
108-60-1	bis(2-Chloroisopropyl)ether	2490	1920	77	30-132
7005-72-3	4-Chlorophenyl phenyl ether	2490	2030	82	54-114
121-14-2	2,4-Dinitrotoluene	2490	2120	85	50-121
606-20-2	2,6-Dinitrotoluene	2490	2200	88	52-115
91-94-1	3,3'-Dichlorobenzidine	2490	1340	54	17-120

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC47506
Account: CDRMRHCT CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP48552-BS	X12344.D	1	08/30/16	AA	08/28/16	OP48552	MSX413

The QC reported here applies to the following samples: **Method:** SW846 8270D

MC47506-1, MC47506-2, MC47506-3, MC47506-4, MC47506-5, MC47506-6, MC47506-7, MC47506-8, MC47506-9, MC47506-10, MC47506-11, MC47506-12, MC47506-13, MC47506-14

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
53-70-3	Dibenzo(a,h)anthracene	2490	2280	92	54-121
132-64-9	Dibenzofuran	2490	1950	78	52-109
84-74-2	Di-n-butyl phthalate	2490	2130	86	55-113
117-84-0	Di-n-octyl phthalate	2490	1520	61	53-126
84-66-2	Diethyl phthalate	2490	1940	78	54-111
131-11-3	Dimethyl phthalate	2490	2020	81	53-111
117-81-7	bis(2-Ethylhexyl)phthalate	2490	1790	72	55-125
206-44-0	Fluoranthene	2490	2140	86	55-116
86-73-7	Fluorene	2490	1970	79	52-111
118-74-1	Hexachlorobenzene	2490	2230	90	52-117
87-68-3	Hexachlorobutadiene	2490	1920	77	36-108
77-47-4	Hexachlorocyclopentadiene	2490	840	34	10-99
67-72-1	Hexachloroethane	2490	1620	65	33-100
193-39-5	Indeno(1,2,3-cd)pyrene	2490	2400	96	55-120
78-59-1	Isophorone	2490	1940	78	37-101
91-57-6	2-Methylnaphthalene	2490	2060	83	38-114
88-74-4	2-Nitroaniline	2490	2180	88	55-120
99-09-2	3-Nitroaniline	2490	1720	69	31-103
100-01-6	4-Nitroaniline	2490	2090	84	50-112
91-20-3	Naphthalene	2490	2630	106	27-128
98-95-3	Nitrobenzene	2490	1960	79	33-108
621-64-7	N-Nitroso-di-n-propylamine	2490	2080	84	37-112
86-30-6	N-Nitrosodiphenylamine	2490	2050	82	47-114
82-68-8	Pentachloronitrobenzene	2490	2140	86	50-125
85-01-8	Phenanthrene	2490	2140	86	54-112
129-00-0	Pyrene	2490	1810	73	54-118
110-86-1	Pyridine	2490	1370	55	23-81
95-94-3	1,2,4,5-Tetrachlorobenzene	2490	2060	83	43-113
120-82-1	1,2,4-Trichlorobenzene	2490	1880	76	38-105

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	82%	25-109%
4165-62-2	Phenol-d5	86%	29-113%
118-79-6	2,4,6-Tribromophenol	94%	20-141%

* = Outside of Control Limits.

7.2.2
7

Blank Spike Summary

Job Number: MC47506
Account: CDRMRHCT CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP48552-BS	X12344.D	1	08/30/16	AA	08/28/16	OP48552	MSX413

The QC reported here applies to the following samples:

Method: SW846 8270D

MC47506-1, MC47506-2, MC47506-3, MC47506-4, MC47506-5, MC47506-6, MC47506-7, MC47506-8, MC47506-9, MC47506-10, MC47506-11, MC47506-12, MC47506-13, MC47506-14

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	78%	27-115%
321-60-8	2-Fluorobiphenyl	82%	34-118%
1718-51-0	Terphenyl-d14	81%	42-139%

* = Outside of Control Limits.

7.2.2
7

Semivolatile Internal Standard Area Summary

Job Number: MC47506
Account: CDRMRHCT CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Check Std:	MSW1195-CC1188	Injection Date:	08/29/16
Lab File ID:	W29650.D	Injection Time:	12:27
Instrument ID:	GCMSW	Method:	SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	93204	4.43	361400	5.49	210318	7.03	385030	8.33	392267	11.59	356433	14.90
Upper Limit ^a	186408	4.93	722800	5.99	420636	7.53	770060	8.83	784534	12.09	712866	15.40
Lower Limit ^b	46602	3.93	180700	4.99	105159	6.53	192515	7.83	196134	11.09	178217	14.40

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
OP48551-MB	118816	4.43	461926	5.49	260724	7.03	469808	8.33	449736	11.59	405234	14.90
OP48551-BS	109144	4.43	419118	5.49	240949	7.03	430606	8.33	410644	11.58	359194	14.90
OP48551-MS	124540	4.43	485724	5.49	275430	7.03	477279	8.33	414255	11.59	337073	14.91
OP48551-MSD	131795	4.43	514879	5.49	292350	7.03	496335	8.33	418977	11.59	342797	14.91
MC47350-20R	115993	4.43	461435	5.49	263551	7.03	447337	8.33	374720	11.59	295583	14.90
ZZZZZZ	123812	4.43	485618	5.49	274202	7.03	464180	8.33	376433	11.59	305022	14.91
ZZZZZZ	124726	4.43	492116	5.49	278027	7.04	465920	8.33	380541	11.59	308058	14.91
ZZZZZZ	114121	4.43	459990	5.49	261340	7.04	442243	8.33	364235	11.59	289829	14.91
ZZZZZZ	120333	4.43	477986	5.49	270498	7.04	455236	8.33	368065	11.59	300204	14.91
ZZZZZZ	120498	4.43	479404	5.49	272208	7.04	467108	8.33	378625	11.59	310726	14.91
ZZZZZZ	118467	4.43	467467	5.49	263076	7.04	452999	8.33	366451	11.59	298613	14.91
MC47506-15	116630	4.43	453855	5.49	262626	7.04	451500	8.33	374202	11.60	305148	14.91
MSW1195-ECC1188	88845	4.43	370486	5.50	216308	7.04	385170	8.34	351896	11.60	299963	14.91

- IS 1** = 1,4-Dichlorobenzene-d4
- IS 2** = Naphthalene-d8
- IS 3** = Acenaphthene-D10
- IS 4** = Phenanthrene-d10
- IS 5** = Chrysene-d12
- IS 6** = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

7.3.1
7

Semivolatiles Internal Standard Area Summary

Job Number: MC47506
Account: CDRMRHCT CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Check Std:	MSX413-CC405	Injection Date:	08/30/16
Lab File ID:	X12340.D	Injection Time:	13:26
Instrument ID:	GCMSX	Method:	SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	478831	4.12	1850782	5.17	984420	6.71	1616366	8.01	1556394	11.00	1399214	14.24
Upper Limit ^a	957662	4.62	3701564	5.67	1968840	7.21	3232732	8.51	3112788	11.50	2798428	14.74
Lower Limit ^b	239416	3.62	925391	4.67	492210	6.21	808183	7.51	778197	10.50	699607	13.74

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
OP48552-MB	527543	4.12	1982610	5.17	1002196	6.71	1605499	8.01	1440321	11.00	1311254	14.25
OP48552-BS	519805	4.12	1980086	5.17	1015591	6.71	1609447	8.01	1480005	11.00	1317894	14.24
OP48552-MS	610208	4.12	2296594	5.17	1188363	6.71	1901030	8.01	1707807	11.00	1410853	14.25
OP48552-MSD	566219	4.12	2129765	5.17	1089997	6.71	1767874	8.01	1618096	11.00	1373651	14.24
ZZZZZZ	528384	4.12	1960652	5.17	988606	6.71	1586169	8.01	1468945	10.99	1319577	14.24
ZZZZZZ	479635	4.12	1775991	5.17	899344	6.71	1469661	8.01	1317279	10.99	1191424	14.24
ZZZZZZ	471382	4.12	1753044	5.17	900090	6.71	1469250	8.01	1332120	10.99	1262983	14.24
MC47493-2	481694	4.12	1774274	5.17	898223	6.71	1444711	8.01	1279285	10.99	1141580	14.24
ZZZZZZ	447816	4.12	1638808	5.17	830149	6.71	1342883	8.01	1169383	10.99	1099166	14.23
ZZZZZZ	497933	4.12	1809055	5.17	918835	6.71	1462647	8.01	1391925	10.99	1339704	14.24
MC47506-1	574983	4.14	1595694	5.19	952316	6.71	1539760	8.01	1627902	11.00	1489578	14.25
MC47506-2	614025	4.15	1648319	5.19	1005403	6.71	1586904	8.01	1608197	11.00	1547726	14.24
MC47506-3	591663	4.16	1240832	5.20	961531	6.71	1572807	8.01	1533245	11.00	1441835	14.24
MC47506-4	592422	4.14	1563243	5.19	953063	6.71	1539163	8.01	1503865	11.00	1412437	14.24
MC47506-5	639615	4.15	1671654	5.19	1131033	6.71	1953739	8.01	1745156	10.99	1493645	14.24
MC47506-6	514377	4.12	1823175	5.17	938717	6.71	1568452	8.01	1628299	11.00	1471006	14.25
MC47506-8	534103	4.12	2061227	5.17	1032896	6.71	1666483	8.01	1445206	11.00	1511557	14.25
MC47506-9	517480	4.12	1971689	5.17	989568	6.71	1615758	8.01	1511644	11.00	1487154	14.25
MC47506-10	474140	4.12	1653443	5.17	850042	6.71	1421905	8.01	1379405	11.00	1388081	14.25
MC47506-11	486264	4.12	1787194	5.17	934185	6.71	1518615	8.01	1369501	11.00	1296176	14.25
MC47506-12	435544	4.12	1612283	5.17	832963	6.71	1385685	8.01	1362702	11.00	1357139	14.25
MC47506-13	461722	4.12	1692610	5.17	873628	6.71	1376497	8.01	1205095	11.00	1180849	14.25
MC47506-14	442438	4.12	1653149	5.17	843458	6.71	1284333	8.01	1233280	11.00	1164136	14.25

- IS 1 = 1,4-Dichlorobenzene-d4
- IS 2 = Naphthalene-d8
- IS 3 = Acenaphthene-D10
- IS 4 = Phenanthrene-d10
- IS 5 = Chrysene-d12
- IS 6 = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

7.3.2
7

Semivolatile Internal Standard Area Summary

Job Number: MC47506
Account: CDRMRHCT CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Check Std:	MSX414-CC405	Injection Date:	08/31/16
Lab File ID:	X12379.D	Injection Time:	10:52
Instrument ID:	GCMSX	Method:	SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	470501	4.12	1822546	5.18	944688	6.71	1481045	8.01	1316065	11.01	1140829	14.25
Upper Limit ^a	941002	4.62	3645092	5.68	1889376	7.21	2962090	8.51	2632130	11.51	2281658	14.75
Lower Limit ^b	235251	3.62	911273	4.68	472344	6.21	740523	7.51	658033	10.51	570415	13.75

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
MC47506-7 ^c	397604	4.12	1506061	5.17	768340	6.71	1213532	8.01	1072760	11.00	913200	14.25
MC47506-1 ^d	484995	4.13	1730821	5.18	833058	6.72	1365290	8.02	1402213	11.03	1354067	14.28
MC47506-2 ^d	493565	4.12	1762074	5.18	865507	6.71	1406318	8.02	1392333	11.02	1337738	14.27
MC47506-3 ^d	468580	4.13	1718408	5.18	821450	6.71	1326905	8.01	1255151	11.01	1276915	14.26
MC47506-4 ^d	464906	4.12	1681783	5.18	826366	6.71	1322324	8.01	1234234	11.01	1212773	14.26
MC47506-5 ^d	449643	4.12	1635694	5.18	798559	6.71	1267482	8.01	1179282	11.01	1148531	14.26

- IS 1** = 1,4-Dichlorobenzene-d4
- IS 2** = Naphthalene-d8
- IS 3** = Acenaphthene-D10
- IS 4** = Phenanthrene-d10
- IS 5** = Chrysene-d12
- IS 6** = Perylene-d12

- (a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
- (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
- (c) Elevated RL due to dilution required for matrix interference.
- (d) Confirmation run for surrogate recoveries.

7.3.3
7

Semivolatile Surrogate Recovery Summary

Job Number: MC47506

Account: CDRMRHCT CDR Maguire

Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Method: SW846 8270D	Matrix: SO
----------------------------	-------------------

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
MC47506-1	X12382.D	3* a	24* a	0* a	78	75	77
MC47506-1	X12353.D	2* a	23* a	5* a	74	78	81
MC47506-2	X12383.D	2* a	22* a	0* a	83	79	78
MC47506-2	X12354.D	2* a	23* a	7* a	81	84	79
MC47506-3	X12384.D	0* a	27* a	0* a	87	84	81
MC47506-3	X12355.D	0* a	25* a	9* a	87	88	85
MC47506-4	X12385.D	0* a	28* a	0* a	84	78	76
MC47506-4	X12356.D	2* a	28* a	4* a	93	89	86
MC47506-5	X12386.D	0* a	28* a	0* a	88	83	79
MC47506-5	X12357.D	3* a	28* a	10* a	90	84	87
MC47506-6	X12358.D	73	76	84	75	74	70
MC47506-7	X12381.D	85	84	71	79	73	73
MC47506-8	X12360.D	80	88	96	74	80	91
MC47506-9	X12361.D	96	90	92	81	81	81
MC47506-10	X12362.D	85	91	90	88	84	82
MC47506-11	X12363.D	86	95	96	86	85	94
MC47506-12	X12364.D	89	92	77	81	84	82
MC47506-13	X12365.D	97	99	97	91	89	92
MC47506-14	X12366.D	103	107	117	96	98	100
MC47506-15	W29663.D	77	80	117	85	87	109
OP48551-BS	W29652.D	83	83	110	88	88	98
OP48551-MB	W29651.D	80	79	105	83	86	99
OP48552-BS	X12344.D	82	86	94	78	82	81
OP48552-MB	X12343.D	71	75	91	65	71	91

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	25-109%
S2 = Phenol-d5	29-113%
S3 = 2,4,6-Tribromophenol	20-141%
S4 = Nitrobenzene-d5	27-115%
S5 = 2-Fluorobiphenyl	34-118%
S6 = Terphenyl-d14	42-139%

(a) Outside control limits due to possible matrix interference. Confirmed by reanalysis.

7.4.1
7

GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC47506
Account: CDRMRHCT CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP48556-MB	IR2593.D	1	08/30/16	MD	08/28/16	OP48556	GIR178

The QC reported here applies to the following samples:

Method: CT-ETPH 7/06

MC47506-1, MC47506-2, MC47506-3, MC47506-4, MC47506-5, MC47506-6, MC47506-7, MC47506-8, MC47506-9, MC47506-10, MC47506-11, MC47506-12, MC47506-13, MC47506-14, MC47506-15

CAS No.	Compound	Result	RL	Units	Q
	CT-ETPH (C9-C36)	ND	17	mg/kg	

CAS No.	Surrogate Recoveries	Limits
84-15-1	o-Terphenyl	76% 50-137%

Method Blank Summary

Job Number: MC47506
Account: CDRMRHCT CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP48554-MB	BK61308.D	1	08/30/16	NK	08/28/16	OP48554	GBK1921

The QC reported here applies to the following samples:

Method: SW846 8082A

MC47506-2, MC47506-4, MC47506-8, MC47506-14

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	24	ug/kg	
11104-28-2	Aroclor 1221	ND	24	ug/kg	
11141-16-5	Aroclor 1232	ND	24	ug/kg	
53469-21-9	Aroclor 1242	ND	24	ug/kg	
12672-29-6	Aroclor 1248	ND	24	ug/kg	
11097-69-1	Aroclor 1254	ND	24	ug/kg	
11096-82-5	Aroclor 1260	ND	24	ug/kg	
37324-23-5	Aroclor 1262	ND	24	ug/kg	
11100-14-4	Aroclor 1268	ND	24	ug/kg	

CAS No.	Surrogate Recoveries	Limits	
877-09-8	Tetrachloro-m-xylene	84%	25-145%
877-09-8	Tetrachloro-m-xylene	85%	25-145%
2051-24-3	Decachlorobiphenyl	79%	25-179%
2051-24-3	Decachlorobiphenyl	75%	25-179%

8.1.2
8

Blank Spike Summary

Job Number: MC47506
Account: CDRMRHCT CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP48556-BS	IR2594.D	1	08/30/16	MD	08/28/16	OP48556	GIR178

The QC reported here applies to the following samples:

Method: CT-ETPH 7/06

MC47506-1, MC47506-2, MC47506-3, MC47506-4, MC47506-5, MC47506-6, MC47506-7, MC47506-8, MC47506-9, MC47506-10, MC47506-11, MC47506-12, MC47506-13, MC47506-14, MC47506-15

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	CT-ETPH (C9-C36)	44.9	32.7	73	60-120

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	82%	50-137%

8.2.1

8

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC47506
Account: CDRMRHCT CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP48554-BS	BK61352.D	1	08/31/16	NK	08/28/16	OP48554	GBK1922

The QC reported here applies to the following samples:

Method: SW846 8082A

MC47506-2, MC47506-4, MC47506-8, MC47506-14

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
12674-11-2	Aroclor 1016	264	224	85	47-144
11104-28-2	Aroclor 1221		ND		40-140
11141-16-5	Aroclor 1232		ND		40-140
53469-21-9	Aroclor 1242		ND		40-140
12672-29-6	Aroclor 1248		ND		40-140
11097-69-1	Aroclor 1254		ND		40-140
11096-82-5	Aroclor 1260	264	234	89	45-156
37324-23-5	Aroclor 1262		ND		40-140
11100-14-4	Aroclor 1268		ND		40-140

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	69%	25-145%
877-09-8	Tetrachloro-m-xylene	68%	25-145%
2051-24-3	Decachlorobiphenyl	83%	25-179%
2051-24-3	Decachlorobiphenyl	78%	25-179%

* = Outside of Control Limits.

Semivolatile Surrogate Recovery Summary

Job Number: MC47506

Account: CDRMRHCT CDR Maguire

Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Method: SW846 8082A	Matrix: SO
----------------------------	-------------------

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 ^a	S1 ^b	S2 ^a	S2 ^b
MC47506-2	BK61324.D	85	84	97	85
MC47506-4	BK61325.D	81	84	83	74
MC47506-8	BK61327.D	75	76	84	81
MC47506-14	BK61328.D	84	91	94	91
OP48554-BS	BK61352.D	69	68	83	78
OP48554-MB	BK61308.D	84	85	79	75

Surrogate Compounds	Recovery Limits
---------------------	-----------------

S1 = Tetrachloro-m-xylene	25-145%
S2 = Decachlorobiphenyl	25-179%

- (a) Recovery from GC signal #1
- (b) Recovery from GC signal #2

8.3.1
8

Semivolatiles Surrogate Recovery Summary

Job Number: MC47506
Account: CDRMRHCT CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

Method: CT-ETPH 7/06	Matrix: SO
-----------------------------	-------------------

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 ^a
MC47506-1	IR2595.D	78
MC47506-2	IR2596.D	77
MC47506-3	IR2597.D	84
MC47506-4	IR2598.D	82
MC47506-5	IR2599.D	79
MC47506-6	IR2609.D	69
MC47506-7	IR2610.D	73
MC47506-8	IR2606.D	68
MC47506-9	IR2607.D	69
MC47506-10	IR2600.D	76
MC47506-11	IR2601.D	71
MC47506-12	IR2602.D	72
MC47506-13	IR2605.D	72
MC47506-14	IR2608.D	85
MC47506-15	IR2604.D	80
OP48556-BS	IR2594.D	82
OP48556-MB	IR2593.D	76

Surrogate Compounds	Recovery Limits
---------------------	-----------------

S1 = o-Terphenyl	50-137%
------------------	---------

(a) Recovery from GC signal #1

8.3.2
8

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC47506
Account: CDRMRHCT - CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26696
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date: 08/26/16

Metal	RL	IDL	MDL	MB raw	final
Aluminum	20	.74	1.2		
Antimony	1.0	.1	.17		
Arsenic	1.0	.11	.2	0.030	<1.0
Barium	5.0	.015	.076	0.39	<5.0
Beryllium	0.40	.013	.015		
Bismuth	5.0	.087	.15		
Boron	10	.12	.13		
Cadmium	0.40	.015	.031	0.020	<0.40
Calcium	500	.93	.86		
Chromium	1.0	.028	.047	0.11	<1.0
Cobalt	5.0	.015	.031		
Copper	2.5	.15	.1		
Gold	5.0	.088	.11		
Iron	10	.17	.44		
Lead	1.0	.071	.11	0.23	<1.0
Lithium	50	.12	.18		
Magnesium	500	1.7	4		
Manganese	1.5	.004	.047		
Molybdenum	10	.019	.51		
Nickel	4.0	.018	.057		
Palladium	5.0	.078	.14		
Platinum	5.0	.34	.54		
Potassium	500	1.8	3.4		
Selenium	1.0	.18	.3	-0.020	<1.0
Silicon	10	.083	.51		
Silver	0.50	.042	.061	0.010	<0.50
Sodium	500	.92	1.2		
Sulfur	5.0	.2	.31		
Strontium	1.0	.004	.022		
Thallium	1.0	.08	.11		
Tin	10	.064	.078		
Titanium	5.0	.036	.054		
Tungsten	10	.27	.93		

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC47506
Account: CDRMRHCT - CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26696
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date: 08/26/16

Metal	RL	IDL	MDL	MB	
				raw	final

Vanadium 1.0 .026 .04

Zinc 2.0 .018 .17

Zirconium 5.0 .025 .17

Associated samples MP26696: MC47506-1, MC47506-2, MC47506-3, MC47506-4, MC47506-5, MC47506-6, MC47506-7, MC47506-8, MC47506-9, MC47506-10, MC47506-11, MC47506-12, MC47506-13, MC47506-14, MC47506-15

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC47506
 Account: CDRMRHCT - CDR Maguire
 Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26696
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date: 08/26/16

Metal	MC47506-14 Original MS		SpikeLot MPICP7	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic	1.8	44.0	43.6	96.7	75-125
Barium	47.2	210	175	93.3	75-125
Beryllium	anr				
Bismuth					
Boron					
Cadmium	0.16	42.0	43.6	95.9	75-125
Calcium					
Chromium	9.2	49.1	43.6	91.4	75-125
Cobalt					
Copper	anr				
Gold					
Iron					
Lead	76.8	157	87.3	91.9	75-125
Lithium					
Magnesium					
Manganese	anr				
Molybdenum					
Nickel	anr				
Palladium					
Platinum					
Potassium					
Selenium	0.22	41.3	43.6	94.1	75-125
Silicon					
Silver	0.079	15.3	17.5	87.2	75-125
Sodium					
Sulfur					
Strontium					
Thallium					
Tin					
Titanium					
Tungsten					

9.1.2
9

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC47506
 Account: CDRMRHCT - CDR Maguire
 Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26696
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date: 08/26/16

Metal	MC47506-14 Original MS	Spike/lot MPICP7	% Rec	QC Limits
-------	---------------------------	---------------------	-------	--------------

Vanadium

Zinc anr

Zirconium

Associated samples MP26696: MC47506-1, MC47506-2, MC47506-3, MC47506-4, MC47506-5, MC47506-6, MC47506-7, MC47506-8, MC47506-9, MC47506-10, MC47506-11, MC47506-12, MC47506-13, MC47506-14, MC47506-15

Results < IDL are shown as zero for calculation purposes

- (*) Outside of QC limits
- (N) Matrix Spike Rec. outside of QC limits
- (anr) Analyte not requested

9.1.2
9

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC47506
 Account: CDRMRHCT - CDR Maguire
 Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26696
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date: 08/26/16

Metal	MC47506-14 Original MSD		Spike/lot MPICP7 % Rec	MSD RPD	QC Limit	
Aluminum						
Antimony						
Arsenic	1.8	44.6	44	97.3	1.4	20
Barium	47.2	212	176	93.6	0.9	20
Beryllium	anr					
Bismuth						
Boron						
Cadmium	0.16	42.6	44	96.5	1.4	20
Calcium						
Chromium	9.2	49.0	44	90.5	0.2	20
Cobalt						
Copper	anr					
Gold						
Iron						
Lead	76.8	155	88	88.9	1.3	20
Lithium						
Magnesium						
Manganese	anr					
Molybdenum						
Nickel	anr					
Palladium						
Platinum						
Potassium						
Selenium	0.22	41.9	44	94.7	1.4	20
Silicon						
Silver	0.079	15.5	17.6	87.6	1.3	20
Sodium						
Sulfur						
Strontium						
Thallium						
Tin						
Titanium						
Tungsten						

9.12
9

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC47506
 Account: CDRMRHCT - CDR Maguire
 Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26696
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date: 08/26/16

Metal	MC47506-14 Original MSD	Spike/lot MPICP7	% Rec	MSD RPD	QC Limit
-------	----------------------------	---------------------	-------	------------	-------------

Vanadium

Zinc anr

Zirconium

Associated samples MP26696: MC47506-1, MC47506-2, MC47506-3, MC47506-4, MC47506-5, MC47506-6, MC47506-7, MC47506-8, MC47506-9, MC47506-10, MC47506-11, MC47506-12, MC47506-13, MC47506-14, MC47506-15

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

9.1.2
 9

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC47506
 Account: CDRMRHCT - CDR Maguire
 Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26696
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date: 08/26/16 08/26/16

Metal	BSP Result	Spikelot MPICP7	% Rec	QC Limits	BSD Result	Spikelot MPICP7	% Rec	BSD RPD	QC Limit
Aluminum									
Antimony									
Arsenic	50.2	50	100.4	80-120	50.1	50	100.2	0.2	20
Barium	197	200	98.5	80-120	195	200	97.5	1.0	20
Beryllium	anr								
Bismuth									
Boron									
Cadmium	49.0	50	98.0	80-120	49.0	50	98.0	0.0	20
Calcium									
Chromium	47.3	50	94.6	80-120	47.2	50	94.4	0.2	20
Cobalt									
Copper	anr								
Gold									
Iron									
Lead	96.1	100	96.1	80-120	95.4	100	95.4	0.7	20
Lithium									
Magnesium									
Manganese	anr								
Molybdenum									
Nickel	anr								
Palladium									
Platinum									
Potassium									
Selenium	48.9	50	97.8	80-120	49.1	50	98.2	0.4	20
Silicon									
Silver	17.7	20	88.5	80-120	17.9	20	89.5	1.1	20
Sodium									
Sulfur									
Strontium									
Thallium									
Tin									
Titanium									
Tungsten									

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC47506
 Account: CDRMRHCT - CDR Maguire
 Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26696
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date: 08/26/16 08/26/16

Metal	BSP Result	Spikelot MPICP7	% Rec	QC Limits	BSD Result	Spikelot MPICP7	% Rec	BSD RPD	QC Limit
-------	---------------	--------------------	-------	--------------	---------------	--------------------	-------	------------	-------------

Vanadium

Zinc anr

Zirconium

Associated samples MP26696: MC47506-1, MC47506-2, MC47506-3, MC47506-4, MC47506-5, MC47506-6, MC47506-7, MC47506-8, MC47506-9, MC47506-10, MC47506-11, MC47506-12, MC47506-13, MC47506-14, MC47506-15

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

9.1.3
 9

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC47506
 Account: CDRMRHCT - CDR Maguire
 Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26696
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date: 08/26/16

Metal	LCS Result	Spikelot MPLCS86	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	96.1	97.5	98.6	78-122
Barium	303	306	99.0	83-117
Beryllium	anr			
Bismuth				
Boron				
Cadmium	74.9	76.6	97.8	82-118
Calcium				
Chromium	95.7	103	92.9	80-121
Cobalt				
Copper	anr			
Gold				
Iron				
Lead	97.5	96.7	100.8	82-118
Lithium				
Magnesium				
Manganese	anr			
Molybdenum				
Nickel	anr			
Palladium				
Platinum				
Potassium				
Selenium	162	161	100.6	78-123
Silicon				
Silver	46.6	49.3	94.5	75-125
Sodium				
Sulfur				
Strontium				
Thallium				
Tin				
Titanium				
Tungsten				

9.1.3
 9

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC47506

Account: CDRMRHCT - CDR Maguire

Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26696

Methods: SW846 6010C

Matrix Type: SOLID

Units: mg/kg

Prep Date:

08/26/16

Metal	LCS Result	Spikelot MPLCS86	% Rec	QC Limits
-------	---------------	---------------------	-------	--------------

Vanadium

Zinc anr

Zirconium

Associated samples MP26696: MC47506-1, MC47506-2, MC47506-3, MC47506-4, MC47506-5, MC47506-6, MC47506-7, MC47506-8, MC47506-9, MC47506-10, MC47506-11, MC47506-12, MC47506-13, MC47506-14, MC47506-15

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: MC47506
 Account: CDRMRHCT - CDR Maguire
 Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26696
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: ug/l

Prep Date: 08/26/16

Metal	MC47506-14 Original SDL 1:5		%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	20.5	19.4	5.4	0-10
Barium	536	572	6.7	0-10
Beryllium	anr			
Bismuth				
Boron				
Cadmium	1.80	1.90	5.6	0-10
Calcium				
Chromium	104	112	7.4	0-10
Cobalt				
Copper	anr			
Gold				
Iron				
Lead	873	907	3.9	0-10
Lithium				
Magnesium				
Manganese	anr			
Molybdenum				
Nickel	anr			
Palladium				
Platinum				
Potassium				
Selenium	2.50	0.00	100.0(a)	0-10
Silicon				
Silver	0.900	2.80	211.1(a)	0-10
Sodium				
Sulfur				
Strontium				
Thallium				
Tin				
Titanium				
Tungsten				

9.1.4
9

SERIAL DILUTION RESULTS SUMMARY

Login Number: MC47506
Account: CDRMRHCT - CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26696
Matrix Type: SOLID

Methods: SW846 6010C
Units: ug/l

Prep Date: 08/26/16

Metal	MC47506-14	QC
	Original SDL 1:5 %DIF	Limits

Vanadium

Zinc anr

Zirconium

Associated samples MP26696: MC47506-1, MC47506-2, MC47506-3, MC47506-4, MC47506-5, MC47506-6, MC47506-7, MC47506-8, MC47506-9, MC47506-10, MC47506-11, MC47506-12, MC47506-13, MC47506-14, MC47506-15

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

9.1.4

9

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC47506
Account: CDRMRHCT - CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26708
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date: 08/30/16

Metal	RL	IDL	MDL	MB raw	final
Aluminum	0.20	.0074	.025		
Antimony	0.0060	.001	.0012		
Arsenic	0.010	.0011	.002	0.00010	<0.010
Barium	0.50	.00015	.00057	0.00010	<0.50
Beryllium	0.0040	.00013	.00034		
Bismuth	0.050	.00087	.0018		
Boron	0.10	.0012	.0023		
Cadmium	0.0040	.00015	.0003	-0.00010	<0.0040
Calcium	5.0	.0093	.018		
Chromium	0.010	.00028	.0011	0.00040	<0.010
Cobalt	0.050	.00015	.00041		
Copper	0.025	.0015	.0042		
Gold	0.050	.00088	.0013		
Iron	0.10	.0017	.016		
Lead	0.010	.00071	.0011	-0.0012	<0.010
Lithium	0.50	.0012	.0018		
Magnesium	5.0	.017	.056		
Manganese	0.015	.00004	.00041		
Molybdenum	0.10	.00019	.016		
Nickel	0.040	.00018	.00035		
Palladium	0.050	.00078	.0014		
Platinum	0.050	.0034	.0047		
Potassium	5.0	.018	.078		
Selenium	0.025	.0018	.0034	-0.00030	<0.025
Silicon	0.10	.00083	.03		
Silver	0.0050	.00042	.0014	-0.00010	<0.0050
Sodium	5.0	.0092	.035		
Sulfur	0.050	.002	.0033		
Strontium	0.010	.00004	.00017		
Thallium	0.0050	.0008	.0018		
Tin	0.10	.00064	.0022		
Titanium	0.050	.00036	.00099		
Tungsten	0.10	.0027	.023		

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC47506
Account: CDRMRHCT - CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26708
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date: 08/30/16

Metal	RL	IDL	MDL	MB	
				raw	final

Vanadium	0.010	.00026	.0004		
Zinc	0.10	.00018	.001		
Zirconium	0.050	.00025	.0026		

Associated samples MP26708: MC47506-1A, MC47506-2A, MC47506-3A, MC47506-4A, MC47506-5A, MC47506-6A, MC47506-7A, MC47506-8A, MC47506-9A, MC47506-10A, MC47506-11A, MC47506-12A, MC47506-13A, MC47506-14A, MC47506-15A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

9.2.1
9

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC47506
 Account: CDRMRHCT - CDR Maguire
 Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26708
 Matrix Type: LEACHATE

Methods: SW846 6010C
 Units: mg/l

Prep Date: 08/30/16

Metal	MC47506-1A Original MS		SpikeLot MPICP7	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic	0.0	0.50	0.50	100.0	75-125
Barium	0.12	2.0	2.0	94.0	75-125
Beryllium					
Bismuth					
Boron					
Cadmium	0.0	0.50	0.50	100.0	75-125
Calcium					
Chromium	0.021	0.50	0.50	95.8	75-125
Cobalt					
Copper					
Gold					
Iron					
Lead	0.0025	0.98	1.0	97.8	75-125
Lithium					
Magnesium					
Manganese					
Molybdenum					
Nickel					
Palladium					
Platinum					
Potassium					
Selenium	0.0	0.49	0.50	98.0	75-125
Silicon					
Silver	0.0	0.17	0.20	85.0	75-125
Sodium					
Sulfur					
Strontium					
Thallium					
Tin					
Titanium					
Tungsten					

9.2.2
 9

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC47506
 Account: CDRMRHCT - CDR Maguire
 Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26708
 Matrix Type: LEACHATE

Methods: SW846 6010C
 Units: mg/l

Prep Date: 08/30/16

Metal	MC47506-1A Original MS	Spike/lot MPICP7	% Rec	QC Limits
-------	---------------------------	---------------------	-------	--------------

Vanadium

Zinc

Zirconium

Associated samples MP26708: MC47506-1A, MC47506-2A, MC47506-3A, MC47506-4A, MC47506-5A, MC47506-6A, MC47506-7A, MC47506-8A, MC47506-9A, MC47506-10A, MC47506-11A, MC47506-12A, MC47506-13A, MC47506-14A, MC47506-15A

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

9.2.2
9

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC47506
 Account: CDRMRHCT - CDR Maguire
 Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26708
 Matrix Type: LEACHATE

Methods: SW846 6010C
 Units: mg/l

Prep Date: 08/30/16

Metal	MC47506-1A Original MSD		Spike/lot MPICP7	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	0.0	0.50	0.50	100.0	0.0	20
Barium	0.12	2.0	2.0	94.0	0.0	20
Beryllium						
Bismuth						
Boron						
Cadmium	0.0	0.50	0.50	100.0	0.0	20
Calcium						
Chromium	0.021	0.49	0.50	93.8	2.0	20
Cobalt						
Copper						
Gold						
Iron						
Lead	0.0025	0.97	1.0	96.8	1.0	20
Lithium						
Magnesium						
Manganese						
Molybdenum						
Nickel						
Palladium						
Platinum						
Potassium						
Selenium	0.0	0.49	0.50	98.0	0.0	20
Silicon						
Silver	0.0	0.17	0.20	85.0	0.0	20
Sodium						
Sulfur						
Strontium						
Thallium						
Tin						
Titanium						
Tungsten						

9.2.2
9

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC47506
 Account: CDRMRHCT - CDR Maguire
 Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26708 Methods: SW846 6010C
 Matrix Type: LEACHATE Units: mg/l

Prep Date: 08/30/16

Metal	MC47506-1A Original MSD	Spike/lot MPICP7 % Rec	MSD RPD	QC Limit
-------	----------------------------	---------------------------	------------	-------------

Vanadium

Zinc

Zirconium

Associated samples MP26708: MC47506-1A, MC47506-2A, MC47506-3A, MC47506-4A, MC47506-5A, MC47506-6A, MC47506-7A, MC47506-8A, MC47506-9A, MC47506-10A, MC47506-11A, MC47506-12A, MC47506-13A, MC47506-14A, MC47506-15A

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

9.2.2
9

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC47506
 Account: CDRMRHCT - CDR Maguire
 Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26708
 Matrix Type: LEACHATE

Methods: SW846 6010C
 Units: mg/l

Prep Date: 08/30/16 08/30/16

Metal	BSP Result	Spikelot MPICP7	% Rec	QC Limits	BSD Result	Spikelot MPICP7	% Rec	BSD RPD	QC Limit
Aluminum									
Antimony									
Arsenic	0.49	0.50	98.0	80-120	0.49	0.50	98.0	0.0	20
Barium	1.9	2.0	95.0	80-120	1.9	2.0	95.0	0.0	20
Beryllium									
Bismuth									
Boron									
Cadmium	0.48	0.50	96.0	80-120	0.48	0.50	96.0	0.0	20
Calcium									
Chromium	0.50	0.50	100.0	80-120	0.49	0.50	98.0	2.0	20
Cobalt									
Copper									
Gold									
Iron									
Lead	0.97	1.0	97.0	80-120	0.97	1.0	97.0	0.0	20
Lithium									
Magnesium									
Manganese									
Molybdenum									
Nickel									
Palladium									
Platinum									
Potassium									
Selenium	0.47	0.50	94.0	80-120	0.47	0.50	94.0	0.0	20
Silicon									
Silver	0.17	0.20	85.0	80-120	0.17	0.20	85.0	0.0	20
Sodium									
Sulfur									
Strontium									
Thallium									
Tin									
Titanium									
Tungsten									

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC47506
 Account: CDRMRHCT - CDR Maguire
 Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26708
 Matrix Type: LEACHATE

Methods: SW846 6010C
 Units: mg/l

Prep Date: 08/30/16 08/30/16

Metal	BSP Result	Spikelot MPICP7	% Rec	QC Limits	BSD Result	Spikelot MPICP7	% Rec	BSD RPD	QC Limit
-------	---------------	--------------------	-------	--------------	---------------	--------------------	-------	------------	-------------

Vanadium

Zinc

Zirconium

Associated samples MP26708: MC47506-1A, MC47506-2A, MC47506-3A, MC47506-4A, MC47506-5A, MC47506-6A, MC47506-7A, MC47506-8A, MC47506-9A, MC47506-10A, MC47506-11A, MC47506-12A, MC47506-13A, MC47506-14A, MC47506-15A

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: MC47506
 Account: CDRMRHCT - CDR Maguire
 Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26708
 Matrix Type: LEACHATE

Methods: SW846 6010C
 Units: ug/l

Prep Date: 08/30/16

Metal	MC47506-1A Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	0.00	0.00	NC	0-10
Barium	121	123	2.2	0-10
Beryllium				
Bismuth				
Boron				
Cadmium	0.00	0.00	NC	0-10
Calcium				
Chromium	20.9	25.5	22.0 (a)	0-10
Cobalt				
Copper				
Gold				
Iron				
Lead	2.50	0.00	100.0 (b)	0-10
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Palladium				
Platinum				
Potassium				
Selenium	0.00	0.00	NC	0-10
Silicon				
Silver	0.00	0.00	NC	0-10
Sodium				
Sulfur				
Strontium				
Thallium				
Tin				
Titanium				
Tungsten				

9.2.4
 9

SERIAL DILUTION RESULTS SUMMARY

Login Number: MC47506
Account: CDRMRHCT - CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26708
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: ug/l

Prep Date: 08/30/16

Metal	MC47506-1A Original SDL 1:5	%DIF	QC Limits
-------	--------------------------------	------	--------------

Vanadium

Zinc

Zirconium

Associated samples MP26708: MC47506-1A, MC47506-2A, MC47506-3A, MC47506-4A, MC47506-5A, MC47506-6A, MC47506-7A, MC47506-8A, MC47506-9A, MC47506-10A, MC47506-11A, MC47506-12A, MC47506-13A, MC47506-14A, MC47506-15A

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

(a) Serial dilution indicates possible matrix interference.

(b) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

9.2.4

9

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC47506
Account: CDRMRHCT - CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26713
Matrix Type: LEACHATE

Methods: SW846 7470A
Units: mg/l

Prep Date: 08/30/16

Metal	RL	IDL	MDL	MB raw	final
-------	----	-----	-----	-----------	-------

Mercury 0.00020 .000038 .000034 -0.0000095<0.00020

Associated samples MP26713: MC47506-1A, MC47506-2A, MC47506-3A, MC47506-4A, MC47506-5A, MC47506-6A, MC47506-7A, MC47506-8A, MC47506-9A, MC47506-10A, MC47506-11A, MC47506-12A, MC47506-13A, MC47506-14A, MC47506-15A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC47506
 Account: CDRMRHCT - CDR Maguire
 Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26713 Methods: SW846 7470A
 Matrix Type: LEACHATE Units: mg/l

Prep Date: 08/30/16

Metal	MC47506-1A Original MS	SpikeLot HGRWS1	% Rec	QC Limits
Mercury	0.0	0.0030	100.0	75-125

Associated samples MP26713: MC47506-1A, MC47506-2A, MC47506-3A, MC47506-4A, MC47506-5A, MC47506-6A, MC47506-7A, MC47506-8A, MC47506-9A, MC47506-10A, MC47506-11A, MC47506-12A, MC47506-13A, MC47506-14A, MC47506-15A

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

9.3.2
 9

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC47506
 Account: CDRMRHCT - CDR Maguire
 Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26713 Methods: SW846 7470A
 Matrix Type: LEACHATE Units: mg/l

Prep Date: 08/30/16

Metal	MC47506-1A Original MSD	Spike HGRWSI	lot % Rec	MSD RPD	QC Limit
Mercury	0.0	0.0029	0.0030	96.7	3.4

Associated samples MP26713: MC47506-1A, MC47506-2A, MC47506-3A, MC47506-4A, MC47506-5A, MC47506-6A, MC47506-7A, MC47506-8A, MC47506-9A, MC47506-10A, MC47506-11A, MC47506-12A, MC47506-13A, MC47506-14A, MC47506-15A

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

9.3.2
 9

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC47506
Account: CDRMRHCT - CDR Maguire
Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26718
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date: 08/31/16

Metal	RL	IDL	MDL	MB	
				raw	final
Mercury	0.033	.0058	.0057	0.0053	<0.033

Associated samples MP26718: MC47506-1, MC47506-2, MC47506-3, MC47506-4, MC47506-5, MC47506-6, MC47506-7, MC47506-8, MC47506-9, MC47506-10, MC47506-11, MC47506-12, MC47506-13, MC47506-14, MC47506-15

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC47506
 Account: CDRMRHCT - CDR Maguire
 Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26718
 Matrix Type: SOLID

Methods: SW846 7471B
 Units: mg/kg

Prep Date: 08/31/16

Metal	MC47506-14 Original MS	Spike lot	HGRWSI	% Rec	QC Limits
-------	---------------------------	--------------	--------	-------	--------------

Mercury 0.080 0.57 0.485 101.1 80-120

Associated samples MP26718: MC47506-1, MC47506-2, MC47506-3, MC47506-4, MC47506-5, MC47506-6, MC47506-7, MC47506-8, MC47506-9, MC47506-10, MC47506-11, MC47506-12, MC47506-13, MC47506-14, MC47506-15

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC47506
 Account: CDRMRHCT - CDR Maguire
 Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26718 Methods: SW846 7471B
 Matrix Type: SOLID Units: mg/kg

Prep Date: 08/31/16

Metal	MC47506-14 Original MSD	Spike lot	HGRWSI	% Rec	MSD RPD	QC Limit
Mercury	0.080	0.61	0.5	106.1	6.8	20

Associated samples MP26718: MC47506-1, MC47506-2, MC47506-3, MC47506-4, MC47506-5, MC47506-6, MC47506-7, MC47506-8, MC47506-9, MC47506-10, MC47506-11, MC47506-12, MC47506-13, MC47506-14, MC47506-15

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC47506
 Account: CDRMRHCT - CDR Maguire
 Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26718 Methods: SW846 7471B
 Matrix Type: SOLID Units: mg/kg

Prep Date: 08/31/16 08/31/16

Metal	BSP Result	Spikelot HGRWS1	% Rec	QC Limits	BSD Result	Spikelot HGRWS1	% Rec	BSD RPD	QC Limit
Mercury	0.54	0.5	108.0	80-120	0.51	0.5	102.0	5.7	20

Associated samples MP26718: MC47506-1, MC47506-2, MC47506-3, MC47506-4, MC47506-5, MC47506-6, MC47506-7, MC47506-8, MC47506-9, MC47506-10, MC47506-11, MC47506-12, MC47506-13, MC47506-14, MC47506-15

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits
 (anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC47506
 Account: CDRMRHCT - CDR Maguire
 Project: 424 Chapel Street, Phase II Environmental Assessment, New Haven, CT

QC Batch ID: MP26718
 Matrix Type: SOLID

Methods: SW846 7471B
 Units: mg/kg

Prep Date: 08/31/16

Metal	LCS Result	Spikelot HGLCS86	% Rec	QC Limits
Mercury	22.2	20.2	109.9	71-129

Associated samples MP26718: MC47506-1, MC47506-2, MC47506-3, MC47506-4, MC47506-5, MC47506-6, MC47506-7, MC47506-8, MC47506-9, MC47506-10, MC47506-11, MC47506-12, MC47506-13, MC47506-14, MC47506-15

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

APPENDIX C – DQA & DUE WORKSHEETS

DATA USABILITY EVALUATION WORKSHEET

Project Name: Phase II Environmental Site Assessment, 424-444 Chapel Street, New Haven, CT

Laboratory: SGS Accutest New England

Laboratory Report: MC47506, MC47545

Date Samples Collected: August 24 & 25, 2016

Describe the intended use of the data: To determine if a "release" to soil and groundwater has occurred from chemicals, hazardous substances or petroleum products

Nonconformance DQA Review Elements	Briefly Summarize DQA Nonconformance
Standard RCP Deliverables	
Data Package Inspection	
Reasonable Confidence Evaluation	
Chain of Custody Evaluation	
Sample Result Evaluation	Acetone, bis(2-ethylhexyl)phthalate & naphthlene biased high due to calibration issues.
Sample Preservation & Holding Time Evaluation	
Blank Evaluation	
Laboratory Control Samples	
Surrogates	
Site-Specific Matrix Spikes and Matrix Spike Duplicates	
Tentatively Identified Compounds	
Other QC Data	

DATA USABILITY EVALUATION WORKSHEET

Provide a summary statement describing how the analytical data set relied upon is of adequate quality and of sufficient accuracy, precision, and sensitivity for the intended purpose.

The results will be used to determine if "releases" to soil and groundwater have occurred due to historic site operations.

A data quality assessment and data usability evaluation was performed for the data generated in accordance with the CTDEEP's "Laboratory Quality Assurance and Quality Control, Data Quality Assessment and Data Usability Evaluation Guidance Document".

Non-conformances related to initial and continuing calibration may result in high bias and false positives in samples for acetone, bis(2-ethylhexyl)phthalate and naphthalene.

The data indicates that "releases" have occurred to soil and groundwater at concentrations below RSR criteria.

Based on the above findings from the DQA and DUE, the analytical data is of adequate and of sufficient accuracy, precision and sensitivity to identify substances of concern at the Site.

RCP DATA QUALITY ASSESSMENT & DATA USABILITY EVALUATION WORKSHEET - SOIL & SEDIMENT SAMPLES

Phase II Environmental Site Assessment, 424-444 Chapel Street, New Haven, CT

Laboratory:	SGS Accutest New England
SDG:	MC47506, MC47535
Date Samples Collected:	August 24 & 25, 2016
RCP Certification Form Included:	Yes
Lab Case Narrative Included:	Yes
Project Purpose:	Data will be used to determine if a "release" to soil and groundwater have occurred from chemicals, hazardous substances or petroleum products
Notes:	None

Sample ID	Sample Date	Compound(s)	QC OUTLIER	POTENTIAL BIAS	COMMENTS	PRELIMINARY DUE CONSIDERATIONS/NOTES
VOC Analysis - 8260						
GP-1 to GP-10 GP-12 to GP-20	8/24/16 & 8/25/16	Acetone, bis(2-Ethylhexyl)phthalate, Naphthalene	Method Blanks	High	Initial Calibration Verification outside of acceptance criteria. Sample results may be biased high.	Compounds detected in samples may be biased high and are likely false positives.

RCP DATA QUALITY ASSESSMENT & DATA USABILITY EVALUATION WORKSHEET - AQUEOUS SAMPLES

Phase II Environmental Site Assessment, 424-444 Chapel Street, New Haven, CT

Laboratory:	SGS Accutest New England
SDG:	MC47506, MC47535
Date Samples Collected:	August 24 & 25, 2016
RCP Certification Form Included:	Yes
Lab Case Narrative Included:	Yes
Project Purpose:	Data will be used to determine if a "release" to soil and groundwater have occurred from chemicals, hazardous substances or petroleum products
Notes:	None

Sample ID	Sample Date	Compound(s)	QC OUTLIER	POTENTIAL BIAS	COMMENTS	PRELIMINARY DUE CONSIDERATIONS/NOTES
VOC Analysis - 8260						
GW-1 and GW-2	8/25/2016	Acetone, bis(2-Ethylhexyl)phthalate, Naphthalene	Method Blanks	High	Initial Calibration Verification outside of acceptance criteria. Sample results may be biased high.	Compounds detected in samples may be biased high and are likely false positives.