

TASK 210: SUBSURFACE SITE INVESTIGATION REPORT

**Replacement of Bridge #01127
Route 80 (Foxon Road) Over the Farm River
North Branford, Connecticut**

ConnDOT Assignment No. 204-4841
ConnDOT Project No. 0098-0101

Prepared for:



State of Connecticut
Department of Transportation
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1.0 INTRODUCTION

On behalf of the Connecticut Department of Transportation (ConnDOT), CDR Maguire Inc. has conducted a Task 210 – Subsurface Site Investigation Report (SSIR) in association with the Replacement of Bridge #01127, Route 80 (Foxon Road) over the Farm River in North Branford, Connecticut.

Route 80 (Foxon Road) runs in an east-west direction over the Farm River in North Branford. Based upon a review of Design Plans by others; the project will involve the replacement of the bridge over the Farm River, including new retaining walls, parapets, and full depth pavement reconstruction of Foxon Road. The project will also include drainage improvements, utility relocations and cut and fill activities. In addition, a temporary by-pass will be constructed as part of this project to maintain traffic during construction activities.

This Task 210 - SSIR was conducted in areas of anticipated construction activities for the proposed bridge replacement project. Figure 1 depicts the project area.

The purpose of this Task 210 – Subsurface Site Investigation Report is to verify the absence or presence and location of subsurface contamination, and to assess the potential pollutant impacts to be encountered during construction of the proposed improvements described above. It is anticipated that Task 310 Plans, Specifications and Estimate will subsequently be prepared to assess construction related activities (i.e. proper storage, classification, transport and disposal of contaminated materials), in relationship to the environmental conditions prevalent within the project limits, as well as to specify remedial work to be included in the Contract Bid Documents.

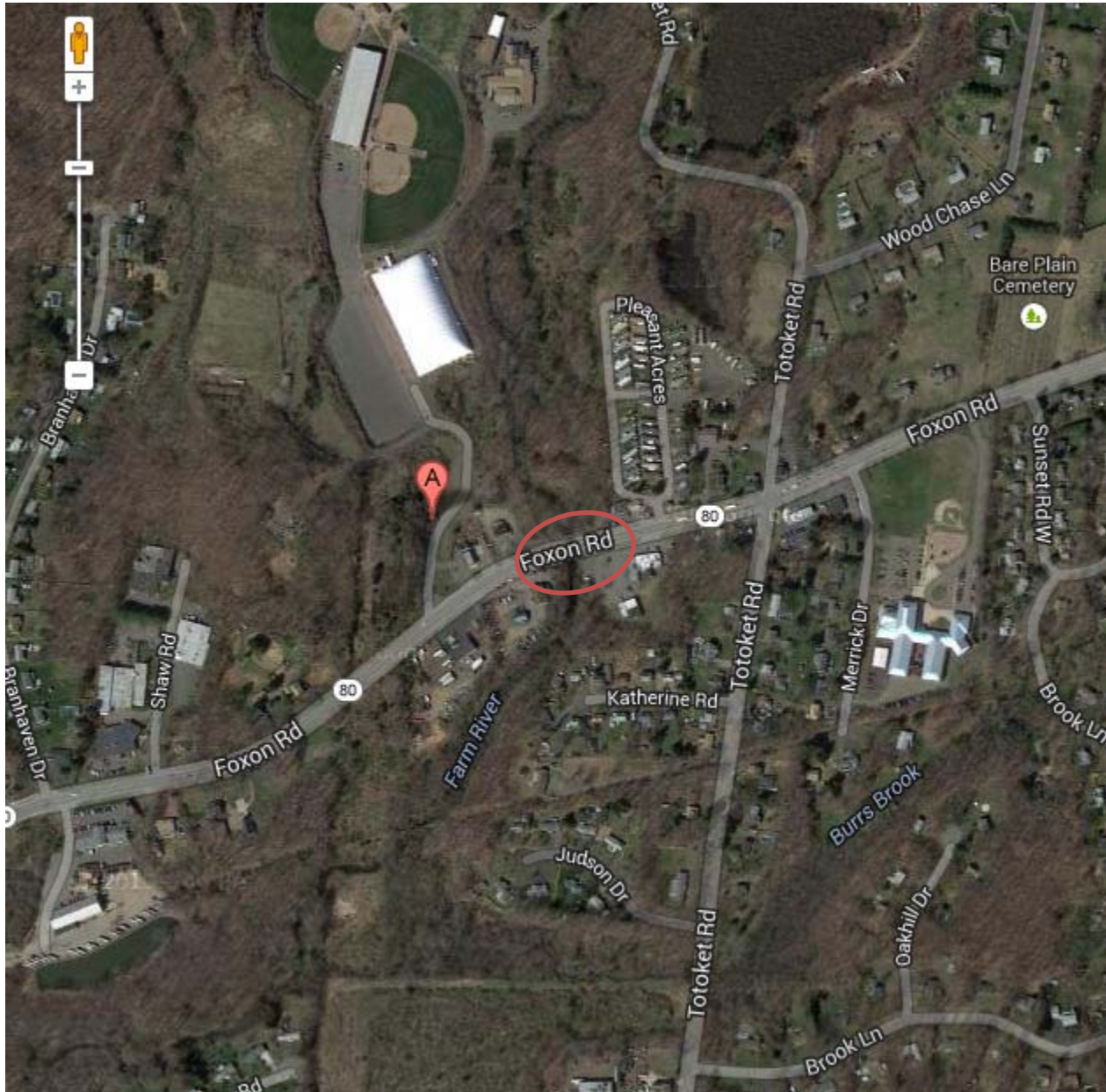


FIGURE 1 - SITE LOCATION PLAN
Replacement of Bridge No. 01127
Foxon Road (Route 80) over Farm River
North Branford, Connecticut

2.0 SITE DESCRIPTION

2.1 Background

ConnDOT is proposing the replacement of Bridge #01127, Foxon Road (Route 80) over the Farm River in North Branford, Connecticut. The limits of the project area extend from Station 1+19.4 to Station 8+24.72 along Foxon Road. The land use within the project corridor consists of the residential and commercial parcels, including a gas station and auto repair shop.

This Task 210 - SSIR was conducted in areas of anticipated construction activities for the proposed bridge replacement project. The site area and proposed sample locations are depicted on Figure 2 – Subsurface Site Investigation Report Sample Location Plan included at the end of this Report.

3.0 LOCAL ENVIRONMENT & RECEPTORS

3.1 Geology

According to the Bedrock Geological Map of Connecticut (Rogers 1985), the project corridor is underlain by the Shuttle Meadow Formation, which is described as a reddish-brown silty shale. The CTDEEP's Surficial Materials – Glacial and Post-Glacial Deposits Map for North Branford, Connecticut – August 2009 indicates that the surficial materials at the site are classified as Postglacial Deposits consisting of alluvium overlying any of the following undifferentiated coarse deposits of gravel, sand and gravel or sand.

3.2 Groundwater & Topography

The project corridor is located within the East Haven River Basin within the South Central Eastern Regional Complex within the South Central Coast Major Basin. The Farm River crosses Foxon Road and is classified as a Class “AA” surface water body by the CTDEEP. The Class “AA” designation indicates that these surface waters are designated for existing or proposed drinking water supplies; habitat for fish and other aquatic life and wildlife; recreation; and water supply for industry and agriculture.

The CTDEEP has designated the groundwater beneath the project corridor west of the Farm River as “GA”. This classification indicates that groundwater is suitable for direct human consumption without treatment. The State's goal is to maintain the groundwater quality. The CTDEEP has designated the groundwater beneath the project corridor east of the Farm River as “GA, GAA May Not Meet Current Standards”. This classification indicates that groundwater may not be suitable for direct human consumption without treatment because of waste discharges, spills or leaks of chemicals, or land-use effects. The State's goal is to restore the groundwater to drinking water quality. Groundwater beneath the Site is assumed to flow towards the Farm River which bisects the project corridor. Groundwater was not encountered during this Task 210 SSIR and therefore no groundwater samples were collected.

4.0 SUBSURFACE INVESTIGATION

Based upon the anticipated construction activities proposed for the project corridor and the existing land use, a comprehensive sampling program was conducted. The following subsections detail the proposed investigation.

4.1 Geoprobe® Soil Borings & Soil Sample Analyses

Eighteen (18) borings were advanced to a depth of 8-feet or refusal within the project limits, utilizing a Geoprobe® direct push unit. The Geoprobe® borings were advanced by Logical Environmental Solutions, LLC. under the direction of CDR Maguire and laboratory analyses were conducted by Accutest Laboratories. The boring locations GP-1 to GP-18 are depicted on Figure 2 at the end of this Report.

Soil samples were collected continuously to eight (8) feet or refusal utilizing a 4-foot long 2-inch diameter Macro Core Sampler with dedicated acetate liners. 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 photoionization detector (PID). The boring logs denote the types of soil encountered, depth to groundwater and/or bedrock, the total depth reached in each boring, and the highest observed PID reading. Copies of the boring logs are included at the end of this report in Appendix A.

Based upon field screening results and visual observations, one (1) soil sample from each boring was placed in glassware supplied by Accutest Laboratories and stored in an ice-filled cooler in accordance with chain-of custody procedures. If visual screening did not indicate contamination, the surficial soil sample, 1 to 3-feet below grade, was collected for laboratory analyses. Each soil sample was submitted for laboratory analysis for the following parameters: volatile organic compounds (VOCs) utilizing EPA Method 8260, semi-volatile organic compounds (SVOCs) utilizing EPA Method 8270, extractable total petroleum hydrocarbons (ETPH) utilizing the Connecticut ETPH method, and total and SPLP RCRA 8 metals. In addition, nine (9) soil

samples collected adjacent to the gas station and auto repair shop were also analyzed for polychlorinated biphenyls (PCBs) utilizing EPA Method 8082.

All Geoprobe® soil borings were back-filled upon completion utilizing clean sand and/or hydrated bentonite. Borings located within paved areas were completed with cold patch following backfilling. 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 Sediment Sample Collection & Analyses

Four (4) sediment grab samples (SED-1 through SED-4) were collected from the banks along the Farm River near the four (4) corners of Bridge No. 01127. The sediment grab sample locations are depicted on Figure 2 at the end of this Report. The sediment samples were analyzed for VOCs (EPA Method 8260), SVOCs (EPA Method 8270), ETPH (CT-ETPH Method), pesticides and PCBs (EPA Method 8081 and 8082), herbicides (EPA Method 8151), total RCRA 8 metals, and SPLP RCRA 8 metals.

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 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 are of known and sufficient level of quality for the intended purpose. See Section 5.5 of this report for a discussion of the QA/QC procedures and data usability evaluation.

To assess the collection of samples in the field in terms of the sampling techniques and decontamination procedures followed, quality control and quality assurance samples were collected and analyzed. Trip blank, TB-1 was prepared by Accutest Laboratories and

accompanied the samples taken on January 16, 2014 to the laboratory for analysis. TB-1 was stored in the sample cooler until delivery to the laboratory and was analyzed for VOCs.

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.

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-208(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.

The RSRs criteria applicable to the soil sampled during this investigation are summarized below. The RSR criteria are not applicable to the sediment sampled during this investigation however, this criteria will be used to evaluate the sediment quality. The application of these RSRs to the results of the laboratory analyses from this investigation are discussed in subsection 5.2 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 GA and GAA groundwater area, therefore, the more stringent criteria apply for the site.

Groundwater Criteria: Under the CTDEEP RSRs 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). However, ConnDOT has had numerous discussions with CTDEP staff with regard to groundwater encountered during “Construction Projects” and the applicability of the RSRs to these situations. Based on the guidance provided by CTDEEP, groundwater samples collected are to be compared to the effluent limits for the *“General Permit for the Discharge of Groundwater Remediation Wastewater Directly to Surface Water”* (GP to Surface Water) and the *“General Permit for the Discharge of Groundwater Remediation Wastewater Directly to Sanitary Sewer”* (GP to Sanitary Sewer) to determine if Groundwater Areas of Environmental Concern (GW AOECs) for construction dewatering exist within the project limits. Groundwater samples were not collected as part of this Task 210 – SSIR and therefore no analysis of contaminants in groundwater is included in this Report.

5.2 Results of Soil Sample Analyses

Soil samples collected during the advancement of Geoprobe® borings, GP-1 through GP-18, were sent to Accutest Laboratories for laboratory analyses. Summaries of the laboratory results from the boring soil samples are presented in Tables 1(a) to 1(e), which are located at the end of this Report, and the complete laboratory data is included on a CD in Appendix B. The following summarizes the results of the analyses conducted on the soil samples collected from the borings.

Extractable Total Petroleum Hydrocarbons

Extractable total petroleum hydrocarbons (ETPH) were detected above analytical detection limits in all eighteen (18) soil samples collected as part of this Task 210 – SSIR.

The following table summarizes the ETPH exceedances detected in soil samples collected from borings GP-3, GP-15, GP-16 and GP-18.

TABLE A – ETPH Exceedances – Soil Samples

Sample ID. (Sample Depth)	Concentration (mg/kg)	Applicable CTDEEP PMC (mg/kg)	CTDEEP RDEC & I/C-DEC (mg/kg)
GP-3 (4'-8')	<i>670</i>	500	500/2,500
GP-15 (1'-3')	<i>1,760</i>	500	500/2,500
GP-16 (1'-3')	<i>1,480</i>	500	500/2,500
GP-18 (1'-3')	<i>668</i>	500	500/2,500

The remaining soil samples collected and analyzed contained ETPH at concentrations above analytical detection limits, but below the applicable CTDEEP RSR criteria.

Volatile Organic Compounds

Volatile organic compounds (VOCs) were detected above analytical detection limits in ten (10) of the eighteen (18) soil samples collected as part of this Task 210 – SSIR.

Acetone was detected at concentrations above analytical detection limits, but below the applicable CTDEEP RSR criteria in soil samples GP-1 (1'-3'), GP-6 (2'-4'), GP-7 (1'-3'), GP-9 (1'-3'), GP-10 (1'-3'), GP-12 (2'-4'), GP-14 (2'-4'), GP-15 (1'-3') and GP-17 (1'-3'). Napthalene was also detected at concentrations above analytical detection limits, but below the applicable CTDEEP RSR criteria in soil sample GP-16 (1'-3').

The remaining soil samples collected and analyzed for the borings did not contain VOCs at concentrations exceeding analytical detection limits (ND).

Semi-Volatile Organic Compounds

Semi-volatile organic compounds (SVOCs) were detected above analytical detection limits in all eighteen (18) soil samples collected as part of this Task 210 – SSIR. SVOCs were detected at varying concentrations in the soil samples collected from within the project limits. The following table summarizes the SVOCs that were detected in the soil samples at concentrations exceeding the applicable CTDEEP RSR criteria.

TABLE B – SVOC Exceedances – Soil Samples

Sample ID. (Sample Depth) SVOC Compound	Concentration (mg/kg)	Applicable CTDEEP PMC (mg/kg)	CTDEEP RDEC & I/C-DEC (mg/kg)
GP-2 (1'-3')			
Benzo(a)anthracene	<i>4.86</i>	1	1/7.8
Benzo(a)pyrene	<i>5.59</i>	1	1/1
Benzo(b)fluoranthene	<i>6.49</i>	1	1/7.8
Benzo(k)fluoranthene	<i>4.36</i>	1	8.4/78
Chrysene	<i>6.43</i>	1	84/780
Dibenz(a,h)anthracene	<i>1.06</i>	1	1/1
Fluoranthene	<i>10.9</i>	5.6	1,000/2,500
Indeno(1,2,3-cd)pyrene	<i>3.03</i>	1	1/7.8
Phenanthrene	<i>5.63</i>	4	1,000/2,500
Pyrene	<i>9.58</i>	4	1,000/2,500
GP-3 (4'-8')			
2-Methylnaphthalene	<i>3.89</i>	0.98	474/2,500
Benzo(a)anthracene	<i>3.71</i>	1	1/7.8
Benzo(a)pyrene	<i>3.23</i>	1	1/1
Benzo(b)fluoranthene	<i>2.38</i>	1	1/7.8
Benzo(k)fluoranthene	<i>2.34</i>	1	8.4/78
Chrysene	<i>3.48</i>	1	84/780
Dibenzofuran	<i>1.44</i>	1	270/2,500
Fluoranthene	<i>8.67</i>	5.6	1,000/2,500
Indeno(1,2,3-cd)pyrene	<i>1.46</i>	1	1/7.8
Naphthalene	<i>5.86</i>	1	1,000/2,500
Phenanthrene	<i>14.6</i>	4	1,000/2,500
Pyrene	<i>8.29</i>	4	1,000/2,500
GP-4 (1'-3')			
Benzo(a)anthracene	<i>3.21</i>	1	1/7.8
Benzo(a)pyrene	<i>3.85</i>	1	1/1
Benzo(b)fluoranthene	<i>4.26</i>	1	1/7.8
Benzo(k)fluoranthene	<i>2.8</i>	1	8.4/78
Chrysene	<i>4.4</i>	1	84/780
Fluoranthene	<i>6.1</i>	5.6	1,000/2,500
Indeno(1,2,3-cd)pyrene	<i>2.45</i>	1	1/7.8
Pyrene	<i>6.97</i>	4	1,000/2,500

TABLE B – SVOC Exceedances – Soil Samples Continued

Sample ID. (Sample Depth) SVOC Compound	Concentration (mg/kg)	Applicable CTDEEP PMC (mg/kg)	CTDEEP RDEC & I/C-DEC (mg/kg)
GP-5 (1'-3')			
Benzo(a)anthracene	<i>3.44</i>	1	1/7.8
Benzo(a)pyrene	<i>3.63</i>	1	1/1
Benzo(b)fluoranthene	<i>2.97</i>	1	1/7.8
Benzo(k)fluoranthene	<i>3.31</i>	1	8.4/78
Chrysene	<i>4.15</i>	1	84/780
Fluoranthene	<i>6.16</i>	5.6	1,000/2,500
Indeno(1,2,3-cd)pyrene	<i>2.13</i>	1	1/7.8
Pyrene	<i>6.98</i>	4	1,000/2,500
GP-6 (2'-4')			
Benzo(a)anthracene	<i>7.65</i>	1	1/7.8
Benzo(a)pyrene	<i>8.5</i>	1	1/1
Benzo(b)fluoranthene	<i>6.34</i>	1	1/7.8
Benzo(k)fluoranthene	<i>5.26</i>	1	8.4/78
Chrysene	<i>8.05</i>	1	84/780
Dibenz(a,h)anthracene	<i>1.66</i>	1	1/1
Fluoranthene	<i>13.1</i>	5.6	1,000/2,500
Indeno(1,2,3-cd)pyrene	<i>4.12</i>	1	1/7.8
Phenanthrene	<i>9.26</i>	4	1,000/2,500
Pyrene	<i>12.7</i>	4	1,000/2,500
GP-7 (1'-3')			
Benzo(a)anthracene	<i>4.75</i>	1	1/7.8
Benzo(a)pyrene	<i>5.79</i>	1	1/1
Benzo(b)fluoranthene	<i>5.29</i>	1	1/7.8
Benzo(k)fluoranthene	<i>4.91</i>	1	8.4/78
Chrysene	<i>5.09</i>	1	84/780
Dibenz(a,h)anthracene	<i>1.15</i>	1	1/1
Fluoranthene	<i>8.22</i>	5.6	1,000/2,500
Indeno(1,2,3-cd)pyrene	<i>3.38</i>	1	1/7.8
Pyrene	<i>7.75</i>	4	1,000/2,500
GP-8 (1'-3')			
Benzo(a)anthracene	<i>3.66</i>	1	1/7.8
Benzo(a)pyrene	<i>4.97</i>	1	1/1
Benzo(b)fluoranthene	<i>4.5</i>	1	1/7.8
Benzo(k)fluoranthene	<i>3.56</i>	1	8.4/78
Chrysene	<i>4.21</i>	1	84/780
Indeno(1,2,3-cd)pyrene	<i>2.75</i>	1	1/7.8
Pyrene	<i>6.44</i>	4	1,000/2,500
GP-12 (2'-4')			
Benzo(b)fluoranthene	<i>1.05</i>	1	1/7.8
Chrysene	<i>1.04</i>	1	84/780
GP-14 (2'-4')			
Benzo(a)pyrene	<i>1.05</i>	1	1/1
Benzo(b)fluoranthene	<i>1.03</i>	1	1/7.8
Chrysene	<i>1.1</i>	1	84/780

TABLE B – SVOC Exceedances – Soil Samples Continued

Sample ID. (Sample Depth) SVOC Compound	Concentration (mg/kg)	Applicable CTDEEP PMC (mg/kg)	CTDEEP RDEC & I/C-DEC (mg/kg)
GP-15 (1'-3')			
Benzo(a)anthracene	<i>18.6</i>	1	1/7.8
Benzo(a)pyrene	<i>17.1</i>	1	1/1
Benzo(b)fluoranthene	<i>19.1</i>	1	1/7.8
Benao(g,h,i)perylene	<i>8.61</i>	4.2	1,000/2,500
Benzo(k)fluoranthene	<i>13.9</i>	1	8.4/78
Carbazole	<i>2.69</i>	1	31/290
Chrysene	<i>19.7</i>	1	84/780
Dibenz(a,h)anthracene	<i>3.01</i>	1	1/1
Fluoranthene	<i>43.5</i>	5.6	1,000/2,500
Indeno(1,2,3-cd)pyrene	<i>8.62</i>	1	1/7.8
Phenanthrene	<i>29.4</i>	4	1,000/2,500
Pyrene	<i>34</i>	4	1,000/2,500
GP-16 (1'-3')			
Benzo(a)anthracene	<i>10.2</i>	1	1/7.8
Benzo(a)pyrene	<i>9.52</i>	1	1/1
Benzo(b)fluoranthene	<i>9.97</i>	1	1/7.8
Benao(g,h,i)perylene	<i>4.86</i>	4.2	1,000/2,500
Benzo(k)fluoranthene	<i>7.73</i>	1	8.4/78
Chrysene	<i>10.7</i>	1	84/780
Dibenz(a,h)anthracene	<i>1.69</i>	1	1/1
Fluoranthene	<i>21.1</i>	5.6	1,000/2,500
Indeno(1,2,3-cd)pyrene	<i>4.72</i>	1	1/7.8
Phenanthrene	<i>8.97</i>	4	1,000/2,500
Pyrene	<i>17.9</i>	4	1,000/2,500
GP-17 (1'-3')			
Benzo(a)anthracene	<i>5.25</i>	1	1/7.8
Benzo(a)pyrene	<i>5.16</i>	1	1/1
Benzo(b)fluoranthene	<i>5</i>	1	1/7.8
Benzo(k)fluoranthene	<i>4.01</i>	1	8.4/78
Chrysene	<i>6.09</i>	1	84/780
Fluoranthene	<i>9.81</i>	5.6	1,000/2,500
Indeno(1,2,3-cd)pyrene	<i>2.87</i>	1	1/7.8
Phenanthrene	<i>5.77</i>	4	1,000/2,500
Pyrene	<i>10.7</i>	4	1,000/2,500
GP-18 (1'-3')			
Benzo(a)anthracene	<i>10.3</i>	1	1/7.8
Benzo(a)pyrene	<i>10.9</i>	1	1/1
Benzo(b)fluoranthene	<i>11.2</i>	1	1/7.8
Benao(g,h,i)perylene	<i>6.88</i>	4.2	1,000/2,500
Benzo(k)fluoranthene	<i>8.38</i>	1	8.4/78
Chrysene	<i>12.8</i>	1	84/780
Dibenz(a,h)anthracene	<i>2.13</i>	1	1/1
Fluoranthene	<i>19</i>	5.6	1,000/2,500
Indeno(1,2,3-cd)pyrene	<i>6.46</i>	1	1/7.8
Phenanthrene	<i>7.96</i>	4	1,000/2,500
Pyrene	<i>19.4</i>	4	1,000/2,500

SVOCs were also detected at concentrations above analytical detection limits, but below the applicable CTDEEP RSR criteria in soil samples GP-1 (1'-3'), GP-9 (1'-3'), GP-10 (1'-3'), GP-11 (2'-4'), and GP-13 (1'-3').

Polychlorinated Biphenyls

Polychlorinated biphenyls (PCBs) were detected above analytical detection limits in one (1) of the nine (9) soil samples collected as part of this Task 210 – SSIR. The PCB Aroclor 1260 was detected in soil sample GP-8 (1'-3') at concentrations above analytical detection limits, but below the applicable CTDEEP RSR criteria. No other PCBs were detected in the soil samples collected and analyzed at concentrations above analytical detection limits (ND).

RCRA 8 Metals

Total metals, arsenic, barium, cadmium, chromium, lead and mercury were detected at varying concentrations above analytical detection limits in each of the eighteen (18) soil samples collected as part of this Task 210 – SSIR. No detected total metals were present at concentrations exceeding the applicable CTDEEP RSR criteria.

Leachable metals chromium and lead were detected at varying concentrations above analytical detection limits in fourteen (14) of the eighteen (18) soil samples collected as part of this Task 210 – SSIR. Table C summarizes the leachable lead that was detected in the soil samples at concentrations exceeding the applicable CTDEEP RSR criteria:

TABLE C – Leachable Lead Exceedances – Soil Samples

Sample ID. (Sample Depth)	Concentration (mg/L)	CTDEEP PMC GA Groundwater Area (mg/L)
GP-2 (1'-3')	<i>0.016</i>	0.015
GP-4 (1'-3')	<i>0.053</i>	0.015
GP-5 (1'-3')	<i>0.050</i>	0.015
GP-7 (1'-3')	<i>0.047</i>	0.015
GP-8 (1'-3')	<i>0.023</i>	0.015
GP-14 (2'-4')	<i>0.016</i>	0.015
GP-15 (1'-3')	<i>0.044</i>	0.015
GP-16 (1'-3')	<i>0.095</i>	0.015
GP-17 (1'-3')	<i>0.079</i>	0.015
GP-18 (1'-3')	<i>0.170</i>	0.015

No other detected leachable metals were present in the soil samples at concentrations exceeding the applicable CTDEEP RSR criteria.

5.3 Results of Sediment Sample Analyses

Sediment grab samples SED-1 through SED-4, were sent to Accutest Laboratories for laboratory analyses. Summaries of the laboratory results from the grab samples are presented in Table 2, which is located at the end of this Report, and the complete laboratory data is included on a CD in Appendix B. The following summarizes the results of the analyses conducted on the sediment samples collected.

Extractable Total Petroleum Hydrocarbons

Extractable total petroleum hydrocarbons (ETPH) were detected above analytical detection limits in all four (4) of the sediment samples collected as part of this Task 210 – SSIR. ETPH was detected at concentrations above analytical detection limits, but below the applicable CTDEEP RSR criteria in sediment samples SED-1, SED-2, SED-3 and SED-4.

Volatile Organic Compounds

No volatile organic compounds (VOCs) were detected above analytical detection limits in the four (4) sediment samples SED-1, SED-2, SED-3 and SED-4 collected as part of this Task 210 – SSIR.

Semi-Volatile Organic Compounds

Semi-volatile organic compounds (SVOCs) were detected at varying concentrations above analytical detection limits in all four of the sediment samples collected as part of this Task 210 – SSIR. The following table summarizes the SVOCs that were detected in sediment sample SED-1 at concentrations exceeding the applicable CTDEEP RSR criteria.

TABLE D - SVOC Exceedances – Sediment Sample

Sample ID. (Sample Depth) SVOC Compound	Concentration (mg/kg)	Applicable CTDEEP PMC (mg/kg)	CTDEEP RDEC & I/C-DEC (mg/kg)
SED-1			
Benzo(a)anthracene	<i>1.26</i>	1	1/7.8
Benzo(a)pyrene	<i>1.37</i>	1	1/1
Benzo(b)fluoranthene	<i>1.46</i>	1	1/7.8
Benzo(k)fluoranthene	<i>1.05</i>	1	8.4/78
Chrysene	<i>1.42</i>	1	84/780

SVOCs were also detected at concentrations above analytical detection limits, but below the applicable CTDEEP RSR criteria in sediment samples SED-2, SED-3 and SED-4.

Polychlorinated Biphenyls

Polychlorinated biphenyls (PCBs) were not detected in above analytical detection limits (ND) in sediment samples collected as part of this Task 210 – SSIR.

Pesticides

Pesticides were not detected in above analytical detection limits (ND) in sediment samples collected as part of this Task 210 – SSIR.

Herbicides

Herbicides were not detected above analytical detection limits (ND) in the sediment samples collected as part of this Task 210 –SSIR.

RCRA 8 Metals

Total metals arsenic, barium, chromium and lead were detected at varying concentrations above analytical detection limits in each of the four (4) sediment samples collected as part of this Task 210 – SSIR. No detected total metals were present at concentrations exceeding the applicable CTDEEP RSR criteria.

Leachable lead was detected in sediment sample SED-1 at a concentration of 0.042 mg/L which exceeds the GA PMC of 0.015 mg/L. No other detected leachable metals were present in the soil samples at concentrations exceeding laboratory detection limits.

5.4 Quality Assurance/Quality Control Samples

The trip blank TB-1 did not contain any detectable concentrations of VOCs. A summary of the laboratory results from the QA/QC sample is presented in Table 3 located at the end of this report, and copies of the analytical results associated with the quality assurance/quality control sample are included in on a CD in Appendix B.

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

Eighteen (18) soil samples and four (4) sediment grab samples were collected from within the project limits and submitted to a state-certified analytical laboratory for analyses using the CTDEEP Reasonable Confidence Protocols (RCPs) established for VOCs, SVOCs, ETPH, metals, pesticides, herbicides and PCBs. The samples were collected to verify the absence or presence and location of subsurface contamination, and to assess the potential pollutant impacts

to be encountered during the construction of the new bridge and associated utility and drainage improvements within the project limits.

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.

Non-conformances related to Laboratory Control Sample/Laboratory Control Sample Duplicates (LCS/LCSDs), LCS RPDs, Matrix Spikes/Matrix Spike Duplicate (MS/MSDs), MS/MSDs RPDs, laboratory blanks, and surrogate responses do not have significant bearing on the accuracy and usability of the data for its intended uses. In all cases the non-conformances had no impact on the data usability and the data is of sufficient quality and precision for its intended use based on multiple lines of evidence.

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 contaminants of concern are present in the soil at concentrations exceeding the CTDEEP RSRs. Task 310 Plans, Specifications and Estimate will be required to assess construction related activities (i.e. proper storage, classification, transport and disposal of contaminated materials), in relationship to the environmental conditions prevalent within the project limits, as well as to specify remedial work to be included in the Contract Bid Documents.

6.0 DISCUSSION OF AFFECTED RESOURCES

Based upon the results of the laboratory analyses performed on the samples for this Task 210 investigation one (1) Area of Environmental Concern (AOEC) for soil has been identified where ETPH, SVOCs and leachable lead are present within the project limits at concentrations that exceed the applicable CTDEEP RSR criteria. In addition, three (3) Low Level Areas of Environmental Concern have been established for soil where concentrations of ETPH, VOCs and SVOCs were above analytical detection limits, but below the CTDEEP RSR standards. Also, one (1) Sediment Area of Environmental Concern (SED-AOEC) has been designated within the project limits where SVOCs and leachable lead were detected at concentrations exceeding the applicable CTDEEP RSR criteria. In addition, one (1) Sediment Low Level Area of Environmental Concern (SED-LLAOEC) has been established for sediment within the project limits where ETPH and SVOCs were detected at concentrations above analytical detection limits, but below the CTDEEP RSR standards. The locations of the AOEC, LLAOECs, SED-AOEC and SED-LLAOEC within the project limits are discussed in the following sections.

6.1 Soil – Areas of Environmental Concern (AOECs)

AOEC-1: Borings GP-2, GP-3, GP-4, GP-6, GP-7, GP-8, GP-12, GP-14, GP-15, GP-16, GP-17 and GP-18

Analytical results from the soil samples collected from boring GP-2, GP-3, GP-4, GP-6, GP-7, GP-8, GP-12, GP-14, GP-15, GP-16, GP-17 and GP-18 indicated the presence of ETPH, SVOCs and leachable lead at elevated concentrations in soil ranging from 1 to 8 feet below grade. The contamination detected exceeds the applicable CTDEEP RSR criteria.

6.2 Soil – Low Level Areas of Environmental Concern (LLAOECs)

LLAOEC-A: Boring GP-1

Analytical results from the soil sample collected from boring GP-1 indicated the presence of ETPH, VOCs and SVOCs at varying concentrations above analytical detection limits, but below the CTDEEP RSR standards. The contaminants were detected in soil ranging from 1 to 3 feet below grade.

LLAOEC-B: Boring GP-13

Analytical results from the soil sample collected from boring GP-13 indicated the presence of ETPH and SVOCs at concentrations above analytical detection limits, but below the CTDEEP RSR standards. The contaminants were detected in soil ranging from 1 to 3 feet below grade.

LLAOEC-C: Boring GP-9, GP-10 and GP-11

Analytical results from the soil samples collected from borings GP-9, GP-10 and GP-11 indicated the presence of ETPH, VOCs and SVOCs at concentrations above analytical detection limits, but below the CTDEEP RSR standards. The contaminants were detected in soil ranging from 1 to 4 feet below grade.

6.3 Sediment – Area of Environmental Concern (AOEC)

SED-AOEC #1: Sample SED-1

Analytical results from sediment sample SED-1 indicated the presence of SVOCs and leachable lead at elevated concentrations in sediment from the riverbanks. The contamination detected exceeds the CTDEEP RSR criteria.

6.3 Sediment - Low Level Area of Environmental Concern (LLAOEC)

SED-LLAOEC A: Samples SED-2, SED-3 & SED-4

Analytical results from sediment samples SED-2, SED-3, and SED-4 collected from the riverbanks indicated the presence of ETPH and SVOCs at concentrations above analytical detection limits, but below the CTDEEP RSR standards

7.0 RECOMMENDATIONS

The results of the Task 210 – Subsurface Site Investigation Report for the replacement of Bridge #01127 along route 80 in North Branford, Connecticut indicated the presence of ETPH, SVOCs, and leachable lead at concentrations exceeding the applicable CTDEEP RSR in soil and sediment within the project limits. The contamination was detected in soils ranging from 1 to 8 feet below grade and in sediment from the riverbanks. In addition, low concentrations of ETPH, VOCs, SVOCs, and PCBs as well as natural occurring metals were detected in the soils and sediment at concentrations below the applicable CTDEEP RSR criteria.

One (1) Area of Environmental Concern (AOEC) and three (3) Low Level Areas of Environmental Concern (LLAOECs) for soil have been established within the project limits. In addition, one (1) Sediment Area of Environmental Concern (SED-AOEC) and one (1) Sediment Low Level Area of Environmental Concern (SED-LLAOEC) exist within the project limits. Special considerations for treatment/disposal and worker health & safety must be given to these areas in order to ensure compliance with all local, State and Federal laws. Task 310 Plans, Specifications, and Estimate are therefore, recommended for construction within the AOEC, LLAOECs, SED-AOEC and SED-LLAOEC described in Section 6.0 above.

8.0 LIMITATIONS

All work product and reports provided by CDR Maguire Inc. (CDRM) in connection with the performance of this Task 210 - Subsurface Site Investigation 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 ConnDOT.
2. In preparing this report, CDRM 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 CDRM at the time of this investigation. To the extent that such files are missing, incomplete or not provided to CDRM, CDRM is not responsible. Although there may have been some degree of overlap in the information provided by these various sources, CDRM 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 CDRM, and the conclusions and recommendations presented herein modified accordingly.

5. Where quantitative laboratory analyses have been conducted by an outside certified laboratory, CDRM 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 CDRM 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 subsurface site investigation, 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 ConnDOT 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.

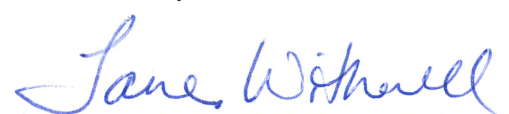
Prepared by:


Joseph H. Buehler
Construction Technician II


Reviewed by:


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Principal Engineer II

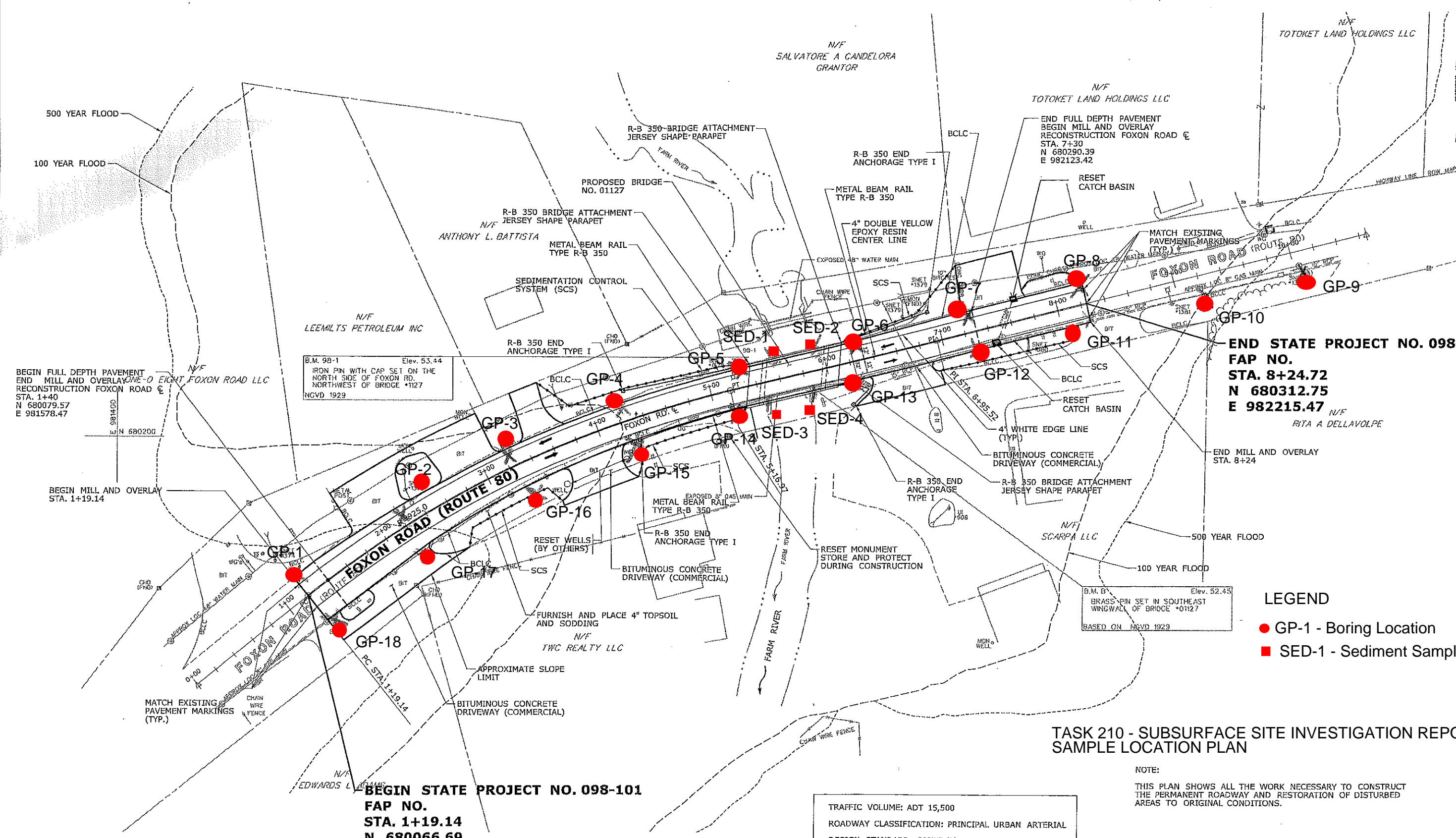
Reviewed by:


Jane Witherell, PE, LEP, CHMM
Principal Engineer

Approved by;


David R. Stock, P.E.
Program Manager

FIGURES



END STATE PROJECT NO. 098-101
FAP NO.
STA. 8+24.72
N 680312.75
E 982215.47

BEGIN FULL DEPTH PAVEMENT
END MILL AND OVERLAY
RECONSTRUCTION FOXON ROAD @
STA. 1+40
N 680079.57
E 981578.47

B.M. 9B-1 Elev. 53.44
 IRON PIN WITH CAP SET ON THE
 NORTH SIDE OF FOXON RD.
 NORTHWEST OF BRIDGE *01127
 NGVD 1929

B.M. B* Elev. 52.45
 BRASS PIN SET IN SOUTHEAST
 WINGWALL OF BRIDGE *01127
 BASED ON NGVD 1929

LEGEND
 ● GP-1 - Boring Location
 ■ SED-1 - Sediment Sample

TASK 210 - SUBSURFACE SITE INVESTIGATION REPORT
SAMPLE LOCATION PLAN

NOTE:
 THIS PLAN SHOWS ALL THE WORK NECESSARY TO CONSTRUCT
 THE PERMANENT ROADWAY AND RESTORATION OF DISTURBED
 AREAS TO ORIGINAL CONDITIONS.

TRAFFIC VOLUME: ADT 15,500
 ROADWAY CLASSIFICATION: PRINCIPAL URBAN ARTERIAL
 DESIGN STANDARD: CONNDOT 3R
 DESIGN SPEED: 45 MPH

PRELIMINARY DESIGN REVIEW

BEGIN STATE PROJECT NO. 098-101
FAP NO.
STA. 1+19.14
N 680066.69
E 981562.06

DESIGNER/DRAFTER: JS/MN	<p>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</p>	SIGNATURE/ BLOCK: STV INCORPORATED	PROJECT TITLE: BRIDGE NO. 01127 FOXON ROAD (ROUTE 80) OVER FARM RIVER	TOWN: NORTH BRANFORD	PROJECT NO. 098-101
CHECKED BY: ZB		APPROVED BY: _____ DATE: _____	DRAWING TITLE: HIGHWAY PLAN	DRAWING NO. PLN-01	SHEET NO. 3
SCALE IN FEET 0 40 80 SCALE 1"=40'	Plotted: 8/6/2013				

TABLES

**TABLE 1(a) - Results of Geoprobe® Boring Soil Sample Analyses
Replacement of bridge #01127, Route 80
North Branford, Connecticut**

Boring I.D.:	GP-1	GP-2	GP-3	GP-4	CTDEEP PMC GA Groundwater Area	CTDEEP DEC Residential/ Commercial & Industrial
Sample Depth:	1'-3'	1'-3'	4'-8'	1'-3'		
Sample Date:	1/17/2014	1/17/2014	1/17/2014	1/16/2014		
CT ETPH - (mg/kg)	124	266	670	290	500 mg/kg	500/2,500 mg/kg
VOCs - Method 8260 (mg/kg)						
Acetone	0.0377	ND	ND	ND	14 mg/kg	500/1,000 mg/kg
SVOCs - Method 8270 (mg/kg)						
2-Methylnaphthalene	ND	ND	3.89	ND	0.98 mg/kg	474/2,500 mg/kg
Acenaphthene	ND	ND	1.03	ND	8.4 mg/kg	1,000/2,500 mg/kg
Acenaphthylene	0.201	2.36	2.57	1.68	8.4 mg/kg	1,000/2,500 mg/kg
Anthracene	0.109	1.23	3.44	0.706	40 mg/kg	1,000/2,500 mg/kg
Benzo(a)anthracene	0.478	4.86	3.71	3.21	1 mg/kg	1/7.8 mg/kg
Benzo(a)pyrene	0.563	5.59	3.23	3.85	1 mg/kg	1/1 mg/kg
Benzo(b)fluoranthene	0.61	6.49	2.38	4.26	1 mg/kg	1/7.8 mg/kg
Benzo(g,h,i)perylene	0.424	3.16	1.55	3	4.2 mg/kg	1,000/2,500 mg/kg
Benzo(k)fluoranthene	0.454	4.36	2.34	2.8	1 mg/kg	8.4/78 mg/kg
Carbazole	ND	0.519	0.879	ND	1 mg/kg	31/290 mg/kg
Chrysene	0.617	6.43	3.48	4.4	1 mg/kg	84/780 mg/kg
Dibenz(a,h)anthracene	ND	1.06	0.517	0.779	1 mg/kg	1/1 mg/kg
Dibenzofuran	ND	0.118	1.44	ND	1 mg/kg	270/2,500 mg/kg
Fluoranthene	1.12	10.9	8.67	6.1	5.6 mg/kg	1,000/2,500 mg/kg
Fluorene	ND	0.238	3.62	ND	5.6 mg/kg	1,000/2,500 mg/kg
Indeno(1,2,3-cd)pyrene	0.367	3.03	1.46	2.45	1 mg/kg	1/7.8 mg/kg
Napthalene	ND	0.152	5.86	ND	1 mg/kg	1,000/2,500 mg/kg
Phenanthrene	0.474	5.63	14.6	2.7	4 mg/kg	1,000/2,500 mg/kg
Pyrene	1.06	9.58	8.29	6.97	4 mg/kg	1,000/2,500 mg/kg
Total SVOCs	6.477	65.707	73.956	42.905		
Pesticides - Method 8081 (mg/kg)	NA	NA	NA	NA	Varies	Varies
PCBs - Method 8082 (mg/kg)	ND	ND	ND	NA	Not Applicable	1/10 mg/kg
Herbicides - Method 8151 (mg/kg)	NA	NA	NA	NA	Varies	Varies
Total RCRA 8 Metals - (mg/kg)					Not Applicable	
Arsenic	2.1	2.2	1.9	1.6		10/10 mg/kg
Barium	39.6	46.5	60.9	43.9		4,700/140,000 mg/kg
Cadmium	<0.35	<0.37	<0.35	<0.36		34/1,000 mg/kg
Chromium	12.3	19.7	16.2	14.2		3,900/51,000 mg/kg
Lead	73.7	33.2	6.3	85.9		400/1,000 mg/kg
Mercury	<0.032	<0.035	<0.033	0.034		20/610 mg/kg
Selenium	<0.87	<0.93	<0.88	<0.9		340/10,000 mg/kg
Silver	<0.43	<0.46	<0.44	<0.45		340/10,000 mg/kg
SPLP RCRA 8 Metals - (mg/L)						Not Applicable
Arsenic	<0.010	<0.010	<0.010	<0.010	0.05 mg/L	
Barium	<0.50	<0.50	<0.50	<0.50	1.0 mg/L	
Cadmium	<0.004	<0.004	<0.004	<0.004	0.005 mg/L	
Chromium	<0.010	<0.010	<0.010	<0.010	0.05 mg/L	
Lead	0.01	0.016	<0.010	0.053	0.015 mg/L	
Mercury	<0.0002	<0.0002	<0.0002	<0.0002	0.002 mg/L	
Selenium	<0.025	<0.025	<0.025	<0.025	0.05 mg/L	
Silver	<0.005	<0.005	<0.005	<0.005	0.036 mg/L	

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

NA – Not Analyzed

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 Geoprobe® Boring Soil Sample Analyses
Replacement of bridge #01127, Route 80
North Branford, Connecticut**

Boring I.D.:	GP-5	GP-6	GP-7	GP-8	CTDEEP PMC GA Groundwater Area	CTDEEP DEC Residential/ Commercial & Industrial
Sample Depth:	1'-3'	2'-4'	1'-3'	1'-3'		
Sample Date:	1/16/2014	1/17/2014	1/17/2013	1/17/2014		
CT ETPH - (mg/kg)	318	370	194	423	500 mg/kg	500/2,500 mg/kg
VOCs - Method 8260 (mg/kg)						
Acetone	ND	0.0515	0.0278	ND	14 mg/kg	500/1,000 mg/kg
Naphthalene	ND	ND	0.0083	ND	5.6 mg/kg	1,000/2,500 mg/kg
SVOCs - Method 8270 (mg/kg)						
2-Methylnaphthalene	ND	0.367	ND	ND	0.98 mg/kg	474/2,500 mg/kg
Acenaphthene	ND	0.271	ND	ND	8.4 mg/kg	1,000/2,500 mg/kg
Acenaphthylene	1.29	2.81	2.52	2.71	8.4 mg/kg	1,000/2,500 mg/kg
Anthracene	0.716	2.09	1.34	1.28	40 mg/kg	1,000/2,500 mg/kg
Benzo(a)anthracene	3.44	7.65	4.75	3.66	1 mg/kg	1/7.8 mg/kg
Benzo(a)pyrene	3.63	8.5	5.79	4.97	1 mg/kg	1/1 mg/kg
Benzo(b)fluoranthene	2.97	6.34	5.29	4.5	1 mg/kg	1/7.8 mg/kg
Benzo(g,h,i)perylene	2.43	4.13	3.83	3.3	4.2 mg/kg	1,000/2,500 mg/kg
Benzo(k)fluoranthene	3.31	5.26	4.91	3.56	1 mg/kg	8.4/78 mg/kg
Carbazole	ND	0.663	ND	ND	1 mg/kg	31/290 mg/kg
Chrysene	4.15	8.05	5.09	4.21	1 mg/kg	84/780 mg/kg
Dibenz(a,h)anthracene	0.662	1.66	1.15	0.904	1 mg/kg	1/1 mg/kg
Dibenzofuran	ND	0.349	ND	ND	1 mg/kg	270/2,500 mg/kg
Fluoranthene	6.16	13.1	8.22	5.45	5.6 mg/kg	1,000/2,500 mg/kg
Fluorene	ND	0.72	0.546	ND	5.6 mg/kg	1,000/2,500 mg/kg
Indeno(1,2,3-cd)pyrene	2.13	4.12	3.38	2.75	1 mg/kg	1/7.8 mg/kg
Naphthalene	ND	0.298	ND	ND	5.6 mg/kg	1,000/2,500 mg/kg
Phenanthrene	3.21	9.26	3.38	1.74	4 mg/kg	1,000/2,500 mg/kg
Pyrene	6.98	12.7	7.75	6.44	4 mg/kg	1,000/2,500 mg/kg
Total SVOCs	41.078	88.338	57.946	45.474		
Pesticides - Method 8081 (mg/kg)	NA	NA	NA	NA	Varies	Varies
PCBs - Method 8082 (mg/kg)						
Aroclor 1260	ND	ND	ND	0.0435	Not Applicable	1/10 mg/kg
Herbicides - Method 8151 (mg/kg)	NA	NA	NA	NA	Varies	Varies
Total RCRA 8 Metals - (mg/kg)					Not Applicable	
Arsenic	1.6	1.8	1.5	2		10/10 mg/kg
Barium	38.6	58	44.8	38.9		4,700/140,000 mg/kg
Cadmium	<0.36	<0.36	<0.31	<0.36		34/1,000 mg/kg
Chromium	23	20.4	15	12.6		3,900/51,000 mg/kg
Lead	89.1	46	52.5	57.3		400/1,000 mg/kg
Mercury	<0.036	0.059	0.037	<0.033		20/610 mg/kg
Selenium	<0.89	<0.91	<0.78	<0.90		340/10,000 mg/kg
Silver	<0.45	<0.45	<0.39	<0.45		340/10,000 mg/kg
SPLP RCRA 8 Metals - (mg/L)						Not Applicable
Arsenic	<0.010	<0.010	<0.010	<0.010	0.05 mg/L	
Barium	<0.50	<0.50	<0.50	<0.50	1.0 mg/L	
Cadmium	<0.004	<0.004	<0.004	<0.004	0.005 mg/L	
Chromium	<0.010	<0.010	<0.010	0.011	0.05 mg/L	
Lead	0.05	0.014	0.047	0.023	0.015 mg/L	
Mercury	<0.0002	<0.0002	<0.0002	<0.0002	0.002 mg/L	
Selenium	<0.025	<0.025	<0.025	<0.025	0.05 mg/L	
Silver	<0.005	<0.005	<0.005	<0.005	0.036 mg/L	

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

NA – Not Analyzed

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 Geoprobe® Boring Soil Sample Analyses
Replacement of bridge #01127, Route 80
North Branford, Connecticut**

Boring I.D.:	GP-9	GP-10	GP-11	GP-12	CTDEEP PMC GA Groundwater Area	CTDEEP DEC Residential/ Commercial & Industrial
Sample Depth:	1'-3'	1'-3'	2'-4'	2'-4'		
Sample Date	1/17/2014	1/17/2014	1/17/2014	1/17/2014		
CT ETPH - (mg/kg)	67	91.7	95.1	110	500 mg/kg	500/2,500 mg/kg
VOCs - Method 8260 (mg/kg) Acetone	0.11	0.545	ND	0.988	14 mg/kg	500/1,000 mg/kg
SVOCs - Method 8270 (mg/kg)						
Acenaphthylene	0.222	0.31	ND	ND	8.4 mg/kg	1,000/2,500 mg/kg
Anthracene	ND	0.159	ND	ND	40 mg/kg	1,000/2,500 mg/kg
Benzo(a)anthracene	0.509	0.702	0.809	0.92	1 mg/kg	1/7.8 mg/kg
Benzo(a)pyrene	0.593	0.792	0.923	0.978	1 mg/kg	1/1 mg/kg
Benzo(b)fluoranthene	0.533	0.846	0.945	1.05	1 mg/kg	1/7.8 mg/kg
Benzo(g,h,i)perylene	0.385	0.504	0.633	0.643	4.2 mg/kg	1,000/2,500 mg/kg
Benzo(k)fluoranthene	0.582	0.632	0.777	0.847	1 mg/kg	8.4/78 mg/kg
Chrysene	0.589	0.825	0.918	1.04	1 mg/kg	84/780 mg/kg
Dibenz(a,h)anthracene	0.122	0.154	ND	ND	1 mg/kg	1/1 mg/kg
Fluoranthene	0.9	1.34	1.49	1.78	5.6 mg/kg	1,000/2,500 mg/kg
Indeno(1,2,3-cd)pyrene	0.358	0.461	0.554	0.581	1 mg/kg	1/7.8 mg/kg
Phenanthrene	0.283	0.439	ND	0.69	4 mg/kg	1,000/2,500 mg/kg
Pyrene	0.9	1.35	1.47	1.66	4 mg/kg	1,000/2,500 mg/kg
Total SVOCs	5.976	8.514	8.519	10.189		
Pesticides - Method 8081 (mg/kg)	NA	NA	NA	NA	Varies	Varies
PCBs - Method 8082 (mg/kg)	NA	NA	NA	NA	Not Applicable	1/10 mg/kg
Herbicides - Method 8151 (mg/kg)	NA	NA	NA	NA	Varies	Varies
Total RCRA 8 Metals - (mg/kg)					Not Applicable	
Arsenic	2.1	2.1	2.1	2.1		10/10 mg/kg
Barium	53.9	62.3	62.7	53.1		4,700/140,000 mg/kg
Cadmium	<0.37	<0.37	<0.36	<0.36		34/1,000 mg/kg
Chromium	15.8	17.1	22.6	17.4		3,900/51,000 mg/kg
Lead	35.5	43.8	38.8	69.4		400/1,000 mg/kg
Mercury	0.09	0.078	0.081	<0.036		20/610 mg/kg
Selenium	<0.91	<0.93	<0.91	<0.89		340/10,000 mg/kg
Silver	<0.46	<0.46	<0.46	<0.45		340/10,000 mg/kg
SPLP RCRA 8 Metals - (mg/L)						Not Applicable
Arsenic	<0.010	<0.010	<0.010	<0.010	0.05 mg/L	
Barium	<0.50	<0.50	<0.50	<0.50	1.0 mg/L	
Cadmium	<0.004	<0.004	<0.004	<0.004	0.005 mg/L	
Chromium	<0.010	<0.010	<0.010	<0.010	0.05 mg/L	
Lead	<0.010	<0.010	0.010	0.012	0.015 mg/L	
Mercury	<0.0002	<0.0002	<0.0002	<0.0002	0.002 mg/L	
Selenium	<0.025	<0.025	<0.025	<0.025	0.05 mg/L	
Silver	<0.005	<0.005	<0.005	<0.005	0.036 mg/L	

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

NA – Not Analyzed

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 Geoprobe® Boring Soil Sample Analyses
Replacement of bridge #01127, Route 80
North Branford, Connecticut**

Boring I.D.:	GP-13	GP-14	GP-15	GP-16	CTDEEP PMC GA Groundwater Area	CTDEEP DEC Residential/ Commercial & Industrial
Sample Depth:	1'-3'	2'-4'	1'-3'	1'-3'		
Sample Date:	1/16/2014	1/16/2014	1/17/2014	1/17/2014		
CT ETPH - (mg/kg)	22.4	57.3	1760	1480	500 mg/kg	500/2,500 mg/kg
VOCs - Method 8260 (mg/kg)						
Acetone	ND	0.0511	0.493	ND	14 mg/kg	500/1,000 mg/kg
Naphthalene	ND	ND	ND	0.006	5.6 mg/kg	1,000/2,500 mg/kg
SVOCs - Method 8270 (mg/kg)						
2-Methylnaphthalene	ND	ND	0.684	ND	0.98 mg/kg	474/2,500 mg/kg
Acenaphthylene	0.165	ND	7.56	3.85	8.4 mg/kg	1,000/2,500 mg/kg
Anthracene	ND	ND	5.71	2.49	40 mg/kg	1,000/2,500 mg/kg
Benzo(a)anthracene	0.414	0.883	18.6	10.2	1 mg/kg	1/7.8 mg/kg
Benzo(a)pyrene	0.453	1.05	17.1	9.52	1 mg/kg	1/1 mg/kg
Benzo(b)fluoranthene	0.519	1.03	19.1	9.97	1 mg/kg	1/7.8 mg/kg
Benzo(g,h,i)perylene	0.306	0.811	8.61	4.86	4.2 mg/kg	1,000/2,500 mg/kg
Benzo(k)fluoranthene	0.302	0.912	13.9	7.73	1 mg/kg	8.4/78 mg/kg
Carbazole	ND	ND	2.69	0.695	1 mg/kg	31/290 mg/kg
Chrysene	0.503	1.1	19.7	10.7	1 mg/kg	84/780 mg/kg
Dibenz(a,h)anthracene	ND	ND	3.01	1.69	1 mg/kg	1/1 mg/kg
Dibenzofuran	ND	ND	1.39	ND	1 mg/kg	270/2,500 mg/kg
Fluoranthene	0.839	1.69	43.5	21.1	5.6 mg/kg	1,000/2,500 mg/kg
Fluorene	ND	ND	1.66	ND	5.6 mg/kg	1,000/2,500 mg/kg
Indeno(1,2,3-cd)pyrene	0.28	0.675	8.62	4.72	1 mg/kg	1/7.8 mg/kg
Naphthalene	ND	ND	0.661	ND	5.6 mg/kg	1,000/2,500 mg/kg
Phenanthrene	0.405	0.738	29.4	8.97	4 mg/kg	1,000/2,500 mg/kg
Pyrene	0.893	1.67	34	17.9	4 mg/kg	1,000/2,500 mg/kg
Total SVOCs	5.079	10.559	235.895	114.395		
Pesticides - Method 8081 (mg/kg)	NA	NA	NA	NA	Varies	Varies
PCBs - Method 8082 (mg/kg)	NA	NA	ND	ND	Not Applicable	1/10 mg/kg
Herbicides - Method 8151 (mg/kg)	NA	NA	NA	NA	Varies	Varies
Total RCRA 8 Metals - (mg/kg)					Not Applicable	
Arsenic	1.7	2.1	2.2	1.8		10/10 mg/kg
Barium	47.4	44.2	43.8	39.8		4,700/140,000 mg/kg
Cadmium	<0.37	<0.36	0.54	<0.36		34/1,000 mg/kg
Chromium	16.6	12.9	28.3	12.3		3,900/51,000 mg/kg
Lead	16.9	42.3	88.1	120		400/1,000 mg/kg
Mercury	<0.036	<0.036	<0.037	<0.035		20/610 mg/kg
Selenium	<0.92	<0.91	<0.96	<0.90		340/10,000 mg/kg
Silver	<0.46	<0.45	<0.48	<0.45		340/10,000 mg/kg
SPLP RCRA 8 Metals - (mg/L)						Not Applicable
Arsenic	<0.010	<0.010	<0.010	<0.010	0.05 mg/L	
Barium	<0.50	<0.50	<0.50	<0.50	1.0 mg/L	
Cadmium	<0.004	<0.004	<0.004	<0.004	0.005 mg/L	
Chromium	<0.01	<0.01	<0.01	<0.01	0.05 mg/L	
Lead	<0.01	0.016	0.044	0.095	0.015 mg/L	
Mercury	<0.0002	<0.0002	<0.0002	<0.0002	0.002 mg/L	
Selenium	<0.025	<0.025	<0.025	<0.025	0.05 mg/L	
Silver	<0.005	<0.005	<0.005	<0.005	0.036 mg/L	

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

NA – Not Analyzed

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 Geoprobe® Boring Soil Sample Analyses
Replacement of bridge #01127, Route 80
North Branford, Connecticut**

Boring I.D.:	GP-17	GP-18	CTDEEP PMC GA Groundwater Area	CTDEEP DEC Residential/ Commercial & Industrial
Sample Depth:	1'-3'	1'-3'		
Sample Date:	1/16/2014	1/16/2014		
CT ETPH - (mg/kg)	299	668	500 mg/kg	500/2,500 mg/kg
VOCs - Method 8260 (mg/kg)				
Acetone	0.0415	ND	14 mg/kg	500/1,000 mg/kg
SVOCs - Method 8270 (mg/kg)				
Acenaphthylene	2.09	3.78	8.4 mg/kg	1,000/2,500 mg/kg
Anthracene	1.19	1.95	40 mg/kg	1,000/2,500 mg/kg
Benzo(a)anthracene	5.25	10.3	1 mg/kg	1/7.8 mg/kg
Benzo(a)pyrene	5.16	10.9	1 mg/kg	1/1 mg/kg
Benzo(b)fluoranthene	5	11.2	1 mg/kg	1/7.8 mg/kg
Benzo(g,h,i)perylene	3.31	6.88	4.2 mg/kg	1,000/2,500 mg/kg
Benzo(k)fluoranthene	4.01	8.38	1 mg/kg	8.4/78 mg/kg
Carbazole	ND	0.685	1 mg/kg	31/290 mg/kg
Chrysene	6.09	12.8	1 mg/kg	84/780 mg/kg
Dibenz(a,h)anthracene	0.941	2.13	1 mg/kg	1/1 mg/kg
Fluoranthene	9.81	19	5.6 mg/kg	1,000/2,500 mg/kg
Indeno(1,2,3-cd)pyrene	2.87	6.46	1 mg/kg	1/7.8 mg/kg
Phenanthrene	5.77	7.96	4 mg/kg	1,000/2,500 mg/kg
Pyrene	10.7	19.4	4 mg/kg	1,000/2,500 mg/kg
Total SVOCs	62.191	121.825		
Pesticides - Method 8081 (mg/kg)	NA	NA	Varies	Varies
PCBs - Method 8082 (mg/kg)	NA	NA	Not Applicable	1/10 mg/kg
Herbicides - Method 8151 (mg/kg)	NA	NA	Varies	Varies
Total RCRA 8 Metals - (mg/kg)			Not Applicable	
Arsenic	1.5	1.8		10/10 mg/kg
Barium	26.6	34.4		4,700/140,000 mg/kg
Cadmium	<0.35	<0.35		34/1,000 mg/kg
Chromium	11.3	12.4		3,900/51,000 mg/kg
Lead	127	268		400/1,000 mg/kg
Mercury	<0.034	<0.035		20/610 mg/kg
Selenium	<0.87	<0.88		340/10,000 mg/kg
Silver	<0.43	<0.44		340/10,000 mg/kg
SPLP RCRA 8 Metals - (mg/L)				Not Applicable
Arsenic	<0.010	<0.010	0.05 mg/L	
Barium	<0.50	<0.50	1.0 mg/L	
Cadmium	<0.004	<0.004	0.005 mg/L	
Chromium	0.014	<0.010	0.05 mg/L	
Lead	0.079	0.17	0.015 mg/L	
Mercury	<0.0002	<0.0002	0.002 mg/L	
Selenium	<0.025	<0.025	0.05 mg/L	
Silver	<0.005	<0.005	0.036 mg/L	

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

NA – Not Analyzed

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 - Results of Sediment Sample Analyses
Replacement of bridge #01127, Route 80
North Branford, Connecticut**

Boring I.D.:	SED-1	SED-2	SED-3	SED-4	CTDEEP PMC GA Groundwater Area	CTDEEP DEC Residential/ Commercial & Industrial
Sample Date:	1/16/2014	1/16/2014	1/16/2014	1/16/2014		
CT ETPH - (mg/kg)	67.8	54.6	33.9	35	500 mg/kg	500/2,500 mg/kg
VOCs - Method 8260 (mg/kg)	ND	ND	ND	ND	Varies	Varies
SVOCs - Method 8270 (mg/kg)						
Acenaphthylene	0.274	0.197	ND	ND	0.98 mg/kg	474/2,500 mg/kg
Anthracene	0.184	0.236	ND	ND	40 mg/kg	1,000/2,500 mg/kg
Benzo(a)anthracene	1.26	0.822	0.407	0.327	1 mg/kg	1/7.8 mg/kg
Benzo(a)pyrene	1.37	0.747	0.429	0.317	1 mg/kg	1/1 mg/kg
Benzo(b)fluoranthene	1.46	0.622	0.443	0.35	1 mg/kg	1/7.8 mg/kg
Benzo(g,h,i)perylene	0.91	0.48	0.324	0.205	4.2 mg/kg	1,000/2,500 mg/kg
Benzo(k)fluoranthene	1.05	0.602	0.385	0.202	1 mg/kg	8.4/78 mg/kg
Chrysene	1.42	0.825	0.474	0.367	1 mg/kg	84/780 mg/kg
Dibenz(a,h)anthracene	0.273	ND	ND	ND	1 mg/kg	270/2,500 mg/kg
Fluoranthene	2.16	1.48	0.845	0.621	5.6 mg/kg	1,000/2,500 mg/kg
Indeno(1,2,3-cd)pyrene	0.832	0.431	0.283	0.177	1 mg/kg	1/7.8 mg/kg
Phenanthrene	0.84	1	0.397	0.338	4 mg/kg	1,000/2,500 mg/kg
Pyrene	2.37	1.77	0.879	0.65	4 mg/kg	1,000/2,500 mg/kg
Total SVOCs	14.403	9.212	4.866	3.554		
Pesticides - Method 8081 (mg/kg)	ND	ND	ND	ND	Varies	Varies
PCBs - Method 8082 (mg/kg)	ND	ND	ND	ND	Not Applicable	1/10 mg/kg
Herbicides - Method 8151 (mg/kg)	ND	ND	ND	ND	Varies	Varies
Total RCRA 8 Metals - (mg/kg)					Not Applicable	
Arsenic	1.1	1	1.7	1.1		10/10 mg/kg
Barium	38.7	58.2	106	43		4,700/140,000 mg/kg
Cadmium	<0.40	<0.37	<0.44	<0.39		34/1,000 mg/kg
Chromium	13.6	10.3	17	10.5		3,900/51,000 mg/kg
Lead	66.1	8.6	19.7	6.6		400/1,000 mg/kg
Mercury	<0.037	<0.041	<0.044	<0.037		20/610 mg/kg
Selenium	<1.0	<0.91	<1.1	<0.98		340/10,000 mg/kg
Silver	<0.50	<0.46	<0.55	<0.49		340/10,000 mg/kg
SPLP RCRA 8 Metals - (mg/L)						Not Applicable
Arsenic	<0.010	<0.010	<0.010	<0.010	0.05 mg/L	
Barium	<0.50	<0.50	<0.50	<0.50	1.0 mg/L	
Cadmium	<0.004	<0.004	<0.004	<0.004	0.005 mg/L	
Chromium	<0.01	<0.01	<0.01	<0.01	0.05 mg/L	
Lead	0.042	<0.01	<0.01	<0.01	0.015 mg/L	
Mercury	<0.0002	<0.0002	<0.0002	<0.0002	0.002 mg/L	
Selenium	<0.025	<0.025	<0.025	<0.025	0.05 mg/L	
Silver	<0.005	<0.005	<0.005	<0.005	0.036 mg/L	

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

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

**TABLE 3 - Results of QA/QC Sample Analyses
Trip Blank Sample
Replacement of bridge #01127, Route 80
North Branford, Connecticut**

Sample I.D.:	TB-1
Matrix:	Water
Sample Date:	1/16/2014
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)

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



Logical Environmental Solutions

354 South River Road
Tolland, CT 06084

Truck, Portable & ATV/Backhoe-Mounted Geopros

Project: Foxon Rd. (Rte. 80) Over Farm River	Boring: GP-18
Location: North Branford, CT	Inspector: J. Caruso
Client: CDR Maguire	Date: 1-16-2014

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval		
0.0		Ground Surface	0.0				
0.5		Dark-Brown fine to medium SAND, little Silt, trace fine Gravel	0.5				
1.0		Red-Brown fine to coarse SAND, trace Silt & fine to coarse Gravel mixed with Basalt Cobbles		0	Macro Core 0'-4'		
2.0							
3.0							
4.0							
5.0							
6.0						0	Macro Core 4'-8'
7.0							
8.0					8.0		
9.0		End of Boring at 8'					
10.0							
11.0							
12.0							

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: W. Lineberry

Depth to Water: Dry

Boring Dia.: 2"

Rig: Geoprobe 540U

Boring Depth: 8'

Page: 1 of 1

SOIL BORING LOG



Logical Environmental Solutions

354 South River Road
Tolland, CT 06084

Truck, Portable & ATV/Backhoe-Mounted Geopros

Project: Foxon Rd. (Rte. 80) Over Farm River	Boring: GP-17
Location: North Branford, CT	Inspector: J. Caruso
Client: CDR Maguire	Date: 1-16-2014

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval		
0.0		Ground Surface	0.0				
0.5		Dark-Brown fine to medium SAND, little Silt, trace fine Gravel	0.5				
1.0		Red-Brown fine to coarse SAND, trace Silt & fine to coarse Gravel mixed with Basalt Cobbles		0	Macro Core 0'-4'		
2.0							
3.0							
4.0							
5.0							
6.0						0	Macro Core 4'-8'
7.0							
8.0					8.0		
9.0		End of Boring at 8'					
10.0							
11.0							
12.0							

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: W. Lineberry	Depth to Water: Dry	Boring Dia.: 2"
Rig: Geoprobe 540U	Boring Depth: 8'	Page: 1 of 1

SOIL BORING LOG



Logical Environmental Solutions

354 South River Road
Tolland, CT 06084

Truck, Portable & ATV/Backhoe-Mounted Geopros

Project: Foxon Rd. (Rte. 80) Over Farm River	Boring: GP-16
Location: North Branford, CT	Inspector: J. Caruso
Client: CDR Maguire	Date: 1-17-2014

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
1.0		Dark-Brown fine to medium SAND, little Silt, trace fine Gravel	1.0		
2.0		Red-Brown to Brown fine to coarse SAND, little Silt	3.8	0	Macro Core 0'-4'
4.0		Brown fine SAND, little Silt, trace fine to coarse Gravel	8.0	0	Macro Core 4'-8'
8.0		End of Boring at 8'			
9.0					
10.0					
11.0					
12.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: W. Lineberry

Depth to Water: Dry

Boring Dia.: 2"

Rig: Geoprobe 540U

Boring Depth: 8'

Page: 1 of 1

SOIL BORING LOG



Logical Environmental Solutions

354 South River Road
Tolland, CT 06084

Truck, Portable & ATV/Backhoe-Mounted Geopros

Project: Foxon Rd. (Rte. 80) Over Farm River	Boring: GP-15
Location: North Branford, CT	Inspector: J. Caruso
Client: CDR Maguire	Date: 1-17-2014

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
1.0		Dark-Brown fine to medium SAND, little Silt, trace fine Gravel	1.0		
2.0		Red-Brown to Brown fine to coarse SAND, little Silt	3.8	0	Macro Core 0'-4'
4.0		Brown fine SAND, little Silt, trace fine to coarse Gravel	8.0	0	Macro Core 4'-8'
8.0		End of Boring at 8'			
9.0					
10.0					
11.0					
12.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: W. Lineberry

Depth to Water: Dry

Boring Dia.: 2"

Rig: Geoprobe 540U

Boring Depth: 8'

Page: 1 of 1

SOIL BORING LOG



Logical Environmental Solutions

354 South River Road
Tolland, CT 06084

Truck, Portable & ATV/Backhoe-Mounted Geopros

Project: Foxon Rd. (Rte. 80) Over Farm River	Boring: GP-14
Location: North Branford, CT	Inspector: J. Caruso
Client: CDR Maguire	Date: 1-16-2014

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
1.0		Dark-Brown fine to medium SAND, little Silt, trace fine Gravel	1.0		
2.0		Red-Brown fine to coarse SAND, little Silt	3.8	0.2	Macro Core 0'-4'
4.0		Brown fine SAND, little Silt, trace fine to coarse Gravel	8.0	0	Macro Core 4'-8'
8.0		End of Boring at 8'			
9.0					
10.0					
11.0					
12.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: W. Lineberry

Depth to Water: Dry

Boring Dia.: 2"

Rig: Geoprobe 540U

Boring Depth: 8'

Page: 1 of 1

SOIL BORING LOG

Project: Foxon Rd. (Rte. 80) Over Farm River **Boring:** GP-13
Location: North Branford, CT **Inspector:** J. Caruso
Client: CDR Maguire **Date:** 1-16-2014



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		
0.3		Dark-Brown fine to medium SAND, little Silt, trace Organics & fine Gravel	0.3		
1.0		Red-Brown fine to coarse SAND, little fine to coarse Gravel & Silt		0	Macro Core 0'-4'
2.0					
3.0					
4.0					
4.5			4.5		
5.0		Orange-Brown SILT		0	Macro Core 4'-8'
6.0					
7.0					
8.0					
8.0		End of Boring at 8'	8.0		
9.0					
10.0					
11.0					
12.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: W. Lineberry

Depth to Water: Dry

Boring Dia.: 2"

Rig: Geoprobe 540U

Boring Depth: 8'

Page: 1 of 1

SOIL BORING LOG



Logical Environmental Solutions

354 South River Road
Tolland, CT 06084

Truck, Portable & ATV/Backhoe-Mounted Geopros

Project: Foxon Rd. (Rte. 80) Over Farm River	Boring: GP-12
Location: North Branford, CT	Inspector: J. Caruso
Client: CDR Maguire	Date: 1-17-2014

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
0.3		Dark-Brown fine to medium SAND, little Silt, trace Organics & fine Gravel	0.3		
1.0		Red-Brown fine to coarse SAND, little Silt & fine to coarse Gravel	4.5	0.1	Macro Core 0'-4'
2.0					
3.0					
4.0					
4.5		Orange-Brown SILT, trace Basalt Cobble	4.5		
5.0		Orange-Brown SILT, trace Basalt Cobble	8.0	0	Macro Core 4'-8'
6.0					
7.0					
8.0					
8.0		End of Boring at 8'			
9.0					
10.0					
11.0					
12.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: W. Lineberry

Depth to Water: Dry

Boring Dia.: 2"

Rig: Geoprobe 540U

Boring Depth: 8'

Page: 1 of 1

SOIL BORING LOG



Logical Environmental Solutions

354 South River Road
Tolland, CT 06084

Truck, Portable & ATV/Backhoe-Mounted Geopros

Project: Foxon Rd. (Rte. 80) Over Farm River	Boring: GP-11
Location: North Branford, CT	Inspector: J. Caruso
Client: CDR Maguire	Date: 1-17-2014

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
0.3		Dark-Brown fine to medium SAND, little Silt, trace Organics & fine Gravel	0.3		
1.0		Red-Brown fine to coarse SAND, little Silt & fine to coarse Gravel	0.3	0.3	Macro Core 0'-4'
2.0					
3.0					
4.0			4.5		
5.0		Orange-Brown SILT, trace Basalt Cobble	0	0	Macro Core 4'-8'
6.0					
7.0					
8.0					
8.0		End of Boring at 8'			
9.0					
10.0					
11.0					
12.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: W. Lineberry

Depth to Water: Dry

Boring Dia.: 2"

Rig: Geoprobe 540U

Boring Depth: 8'

Page: 1 of 1

SOIL BORING LOG



Logical Environmental Solutions

354 South River Road
Tolland, CT 06084

Truck, Portable & ATV/Backhoe-Mounted Geopros

Project: Foxon Rd. (Rte. 80) Over Farm River	Boring: GP-10
Location: North Branford, CT	Inspector: J. Caruso
Client: CDR Maguire	Date: 1-17-2014

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
0.3		Dark-Brown fine to medium SAND, little Silt, trace Organics & fine Gravel	0.3		
1.0	♦♦♦♦♦				
2.0	♦♦♦♦♦			0	Macro Core 0'-4'
3.0	♦♦♦♦♦	Red-Brown fine to coarse SAND, little Silt & fine to coarse Gravel			
4.0	♦♦♦♦♦				
4.5			4.5		
5.0	●●●●●	Orange-Brown SILT, little Basalt Cobbles	5.0	0	Macro Core 4'-5'
6.0		Refusal at 5' on Basalt			
7.0					
8.0					
9.0					
10.0					
11.0					
12.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: W. Lineberry

Depth to Water: Dry

Boring Dia.: 2"

Rig: Geoprobe 540U

Boring Depth: 5'

Page: 1 of 1

SOIL BORING LOG



Logical Environmental Solutions

354 South River Road
Tolland, CT 06084

Truck, Portable & ATV/Backhoe-Mounted Geopros

Project: Foxon Rd. (Rte. 80) Over Farm River	Boring: GP-9
Location: North Branford, CT	Inspector: J. Caruso
Client: CDR Maguire	Date: 1-17-2014

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
0.3		Dark-Brown fine to medium SAND, little Silt, trace Organics & fine Gravel	0.3		
1.0	[Symbol: Dotted pattern]				
2.0		Red-Brown fine to coarse SAND, little Silt & fine to coarse Gravel		0	Macro Core 0'-4'
3.0					
4.0			4.0		
5.0					
6.0		Refusal at 4' on Basalt			
7.0					
8.0					
9.0					
10.0					
11.0					
12.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: W. Lineberry

Depth to Water: Dry

Boring Dia.: 2"

Rig: Geoprobe 540U

Boring Depth: 4'

Page: 1 of 1

SOIL BORING LOG



Logical Environmental Solutions

354 South River Road
Tolland, CT 06084

Truck, Portable & ATV/Backhoe-Mounted Geopros

Project: Foxon Rd. (Rte. 80) Over Farm River	Boring: GP-8
Location: North Branford, CT	Inspector: J. Caruso
Client: CDR Maguire	Date: 1-17-2014

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
0.5		Dark-Brown fine to medium SAND, little Silt, trace Organics & fine Gravel	0.5		Macro Core 0'-4'
1.0					
2.0		Red-Brown fine to medium SAND, little Basalt Cobbles & Silt, trace fine to coarse Gravel & Asphalt		0	Macro Core 4'-5'
3.0					
4.0		Brown SILT, little Basalt Cobbles	4.0		Macro Core 4'-5'
5.0				0	
6.0		Refusal at 5' on Basalt			
7.0					
8.0					
9.0					
10.0					
11.0					
12.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: W. Lineberry

Depth to Water: Dry

Boring Dia.: 2"

Rig: Geoprobe 540U

Boring Depth: 5'

Page: 1 of 1

SOIL BORING LOG



Logical Environmental Solutions

354 South River Road
Tolland, CT 06084

Truck, Portable & ATV/Backhoe-Mounted Geopros

Project: Foxon Rd. (Rte. 80) Over Farm River	Boring: GP-7
Location: North Branford, CT	Inspector: J. Caruso
Client: CDR Maguire	Date: 1-17-2014

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
0.5		Dark-Brown fine to medium SAND, little Silt, trace Organics & fine Gravel	0.5		
1.0	◊				
2.0	◊	Red-Brown fine to medium SAND, little Basalt Cobbles & Silt, trace fine to coarse Gravel		0	Macro Core 0'-4'
3.0	◊				
4.0	◊		4.0		
5.0	●				
6.0	●	Brown SILT, little Basalt Cobbles		0	Macro Core 4'-8'
7.0	●				
8.0	●		8.0		
9.0		End of Boring at 8'			
10.0					
11.0					
12.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: W. Lineberry

Depth to Water: Dry

Boring Dia.: 2"

Rig: Geoprobe 540U

Boring Depth: 8'

Page: 1 of 1

SOIL BORING LOG



Logical Environmental Solutions

354 South River Road
Tolland, CT 06084

Truck, Portable & ATV/Backhoe-Mounted Geopros

Project: Foxon Rd. (Rte. 80) Over Farm River	Boring: GP-6
Location: North Branford, CT	Inspector: J. Caruso
Client: CDR Maguire	Date: 1-17-2014

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
0.5		Dark-Brown fine to medium SAND, little Silt, trace Organics & fine Gravel	0.5		
1.0	◊				
2.0	◊			0.2	Macro Core 0'-4'
3.0	◊	Red-Brown fine to medium SAND, little Basalt Cobbles & Silt, trace fine Gravel to coarse Gravel			
4.0	◊		4.0		
5.0	●				
6.0	●	Brown SILT, little Basalt Cobbles		0	Macro Core 4'-8'
7.0	●				
8.0	●		8.0		
9.0		End of Boring at 8'			
10.0					
11.0					
12.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: W. Lineberry

Depth to Water: Dry

Boring Dia.: 2"

Rig: Geoprobe 540U

Boring Depth: 8'

Page: 1 of 1

SOIL BORING LOG



Logical Environmental Solutions

354 South River Road
Tolland, CT 06084

Truck, Portable & ATV/Backhoe-Mounted Geopros

Project: Foxon Rd. (Rte. 80) Over Farm River	Boring: GP-5
Location: North Branford, CT	Inspector: J. Caruso
Client: CDR Maguire	Date: 1-16-2014

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
0.5		Dark-Brown fine to medium SAND, little Silt, trace Organics & fine Gravel	0.5		
1.0		Red-Brown fine to medium SAND, little fine Gravel, trace Silt		0	Macro Core 0'-4'
2.0					
3.0					
4.0					
5.0				0	Macro Core 4'-8'
6.0					
7.0					
8.0			8.0		
9.0		End of Boring at 8'			
10.0					
11.0					
12.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: W. Lineberry

Depth to Water: Dry

Boring Dia.: 2"

Rig: Geoprobe 540U

Boring Depth: 8'

Page: 1 of 1

SOIL BORING LOG



Logical Environmental Solutions

354 South River Road
Tolland, CT 06084

Truck, Portable & ATV/Backhoe-Mounted Geopros

Project: Foxon Rd. (Rte. 80) Over Farm River	Boring: GP-4
Location: North Branford, CT	Inspector: J. Caruso
Client: CDR Maguire	Date: 1-16-2014

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
0.5		Dark-Brown fine to medium SAND, little Silt, trace Organics & fine Gravel	0.5		
1.0		Red-Brown fine to medium SAND, little fine Gravel, trace Silt		0	Macro Core 0'-4'
2.0					
3.0					
4.0					
5.0				0	Macro Core 4'-8'
6.0					
7.0					
8.0			8.0		
9.0		End of Boring at 8'			
10.0					
11.0					
12.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: W. Lineberry

Depth to Water: Dry

Boring Dia.: 2"

Rig: Geoprobe 540U

Boring Depth: 8'

Page: 1 of 1

SOIL BORING LOG



Logical Environmental Solutions

354 South River Road
Tolland, CT 06084

Truck, Portable & ATV/Backhoe-Mounted Geopros

Project: Foxon Rd. (Rte. 80) Over Farm River	Boring: GP-3
Location: North Branford, CT	Inspector: J. Caruso
Client: CDR Maguire	Date: 1-17-2014

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
0.5		Dark-Brown fine to medium SAND, little Silt, trace Organics & fine Gravel	0.5		
1.0		Red-Brown fine to medium SAND, little fine Gravel, trace Silt & Asphalt	2.0	0.2	Macro Core 0'-4'
2.0		Brown SILT, little Basalt Cobbles (strong creosote odor)	3.1	3.1	Macro Core 4'-8'
3.0			8.0		
4.0					
5.0					
6.0					
7.0					
8.0		End of Boring at 8'			
9.0					
10.0					
11.0					
12.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: W. Lineberry

Depth to Water: Dry

Boring Dia.: 2"

Rig: Geoprobe 540U

Boring Depth: 8'

Page: 1 of 1

SOIL BORING LOG



Logical Environmental Solutions

354 South River Road
Tolland, CT 06084

Truck, Portable & ATV/Backhoe-Mounted Geopros

Project: Foxon Rd. (Rte. 80) Over Farm River	Boring: GP-2
Location: North Branford, CT	Inspector: J. Caruso
Client: CDR Maguire	Date: 1-17-2014

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
0.5		Dark-Brown fine to medium SAND, little Silt, trace Organics & fine Gravel	0.5		Macro Core 0'-3'
1.0	[Symbol: Dotted pattern]	Red-Brown fine to medium SAND, little fine Gravel, trace Silt		0	
2.0					
3.0			3.0		
4.0		Refusal on Concrete at 3'			
5.0					
6.0					
7.0					
8.0					
9.0					
10.0					
11.0					
12.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: W. Lineberry

Depth to Water: Dry

Boring Dia.: 2"

Rig: Geoprobe 540U

Boring Depth: 3'

Page: 1 of 1

SOIL BORING LOG



Logical Environmental Solutions

354 South River Road
Tolland, CT 06084

Truck, Portable & ATV/Backhoe-Mounted Geopros

Project: Foxon Rd. (Rte. 80) Over Farm River	Boring: GP-1
Location: North Branford, CT	Inspector: J. Caruso
Client: CDR Maguire	Date: 1-17-2014

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
0.5		Dark-Brown fine to medium SAND, little Silt, trace Organics & fine Gravel	0.5		Macro Core 0'-4'
1.0		Red-Brown fine to medium SAND, little fine Gravel, trace Silt mixed with Asphalt	2.0	0	
2.0		Brown SILT, little Basalt Cobbles	6.0	0	Macro Core 4'-6'
3.0					
4.0					
5.0					
6.0		Refusal on Basalt at 6'			
7.0					
8.0					
9.0					
10.0					
11.0					
12.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: W. Lineberry

Depth to Water: Dry

Boring Dia.: 2"

Rig: Geoprobe 540U

Boring Depth: 6'

Page: 1 of 1

APPENDIX B

Laboratory Reports

Technical Report for

CDR Maguire

Bridge No.1127-Rte 80 Over Farm River North Branford, CT

98-101

Accutest Job Number: MC27709

Sampling Date: 01/16/14

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: 199



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.



**Reza Fand
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)

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Test results relate only to samples analyzed.

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4

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6

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8

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Sample Summary

CDR Maguire

Job No: MC27709

Bridge No. 1127-Rte 80 Over Farm River North Branford, CT
 Project No: 98-101

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
MC27709-1	01/16/14	07:55 CK	01/16/14	SO	Sediment	SED-1
MC27709-1A	01/16/14	07:55 CK	01/16/14	SO	Sediment	SED-1
MC27709-2	01/16/14	08:30 CK	01/16/14	SO	Sediment	SED-2
MC27709-2A	01/16/14	08:30 CK	01/16/14	SO	Sediment	SED-2
MC27709-3	01/16/14	07:00 CK	01/16/14	SO	Sediment	SED-3
MC27709-3A	01/16/14	07:00 CK	01/16/14	SO	Sediment	SED-3
MC27709-4	01/16/14	13:00 CK	01/16/14	SO	Sediment	SED-4
MC27709-4A	01/16/14	13:00 CK	01/16/14	SO	Sediment	SED-4
MC27709-5	01/16/14	08:55 CK	01/16/14	SO	Soil	GP-4 1-3'
MC27709-5A	01/16/14	08:55 CK	01/16/14	SO	Soil	GP-4 1-3'
MC27709-6	01/16/14	09:30 CK	01/16/14	SO	Soil	GP-5 1-3'
MC27709-6A	01/16/14	09:30 CK	01/16/14	SO	Soil	GP-5 1-3'
MC27709-7	01/16/14	13:55 CK	01/16/14	SO	Soil	GP-13 1-3'

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



Sample Summary

(continued)

CDR Maguire

Job No: MC27709

Bridge No. 1127-Rte 80 Over Farm River North Branford, CT

Project No: 98-101

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
MC27709-7A	01/16/14	13:55 CK	01/16/14	SO	Soil	GP-13 1-3'
MC27709-8	01/16/14	12:00 CK	01/16/14	SO	Soil	GP-14 2-4'
MC27709-8A	01/16/14	12:00 CK	01/16/14	SO	Soil	GP-14 2-4'
MC27709-9	01/16/14	11:05 CK	01/16/14	SO	Soil	GP-17 1-3'
MC27709-9A	01/16/14	11:05 CK	01/16/14	SO	Soil	GP-17 1-3'
MC27709-10	01/16/14	10:15 CK	01/16/14	SO	Soil	GP-18 1-3'
MC27709-10A	01/16/14	10:15 CK	01/16/14	SO	Soil	GP-18 1-3'
MC27709-11	01/16/14	07:00 CK	01/16/14	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 MC27709

Site: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

Report Date 1/27/2014 12:37:55 PM

10 Sample(s), 1 Trip Blank(s) and 0 Field Blank(s) were collected on 01/16/2014 and were received at Accutest on 01/16/2014 properly preserved, at 0.7 Deg. C and intact. These Samples received an Accutest job number of MC27709. 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: MSN3129

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- MSN3129-BS for Acetone, Chloromethane are outside control limits. Blank Spike meets program technical requirements.
- Continuing calibration check standard MSN3129-CC3086 for dichlorodifluoromethane, chloromethane, acetone exceed 20% Difference. This check standard met RCP criteria.

Matrix: SO

Batch ID: MSM2200

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Continuing calibration check standard MSM2200-CC2195 for chloroethane, methylene chloride, 2-hexanone exceed 20% Difference. This check standard met RCP criteria.
- Quadratic regression is employed for initial calibration standard MSM2195-ICC2195 for 2-hexanone.

Extractables by GCMS By Method SW846 8270D

Matrix: SO

Batch ID: OP36569

- 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.
- Initial calibration verification MSW729-ICV729 for Aniline, bis(2-chloroisopropyl)ether, Pentachloronitrobenzene exceed 30% Difference.
- Continuing calibration check standard MSW763-CC729 for Naphthalene2,4-Dinitrophenol, Pentachlorophenol exceed 20% Difference. This check standard met RCP criteria.

Extractables by GC By Method CT-ETPH 7/06

Matrix: SO

Batch ID: OP36574

- 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 8081

Matrix: SO **Batch ID:** OP36566

- 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 8082

Matrix: SO **Batch ID:** OP36567

- 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 8151

Matrix: SO **Batch ID:** OP36565

- 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.
- OP36565-BS for 2,4,5-T: Outside control limits. Associated samples are non-detect for this compound.

Metals By Method SW846 6010C

Matrix: LEACHATE **Batch ID:** MP22395

- 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) MC27709-1AMS, MC27709-1AMSD, MC27709-1ASDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Chromium are outside control limits for sample MP22395-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- Only selected metals requested.

Matrix: SO **Batch ID:** MP22393

- 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) MC27721-ISDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Arsenic, Cadmium, Selenium are outside control limits for sample MP22393-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:** MP22406

- 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) MC27709-1AMS, MC27709-1AMSD were used as the QC samples for metals.

Metals By Method SW846 7471B

Matrix: SO

Batch ID: MP22392

- 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) MC27709-10MS, MC27709-10MSD were used as the QC samples for metals.

The Accutest Laboratories of 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 Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report (MC27709).

Summary of Hits

Job Number: MC27709
Account: CDR Maguire
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT
Collected: 01/16/14



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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MC27709-1 SED-1

Acenaphthylene	274	130		ug/kg	SW846 8270D
Anthracene	184	130		ug/kg	SW846 8270D
Benzo(a)anthracene	1260	130		ug/kg	SW846 8270D
Benzo(a)pyrene	1370	130		ug/kg	SW846 8270D
Benzo(b)fluoranthene	1460	130		ug/kg	SW846 8270D
Benzo(g,h,i)perylene	910	130		ug/kg	SW846 8270D
Benzo(k)fluoranthene	1050	130		ug/kg	SW846 8270D
Chrysene	1420	130		ug/kg	SW846 8270D
Dibenzo(a,h)anthracene	273	130		ug/kg	SW846 8270D
Fluoranthene	2160	130		ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene	832	130		ug/kg	SW846 8270D
Phenanthrene	840	130		ug/kg	SW846 8270D
Pyrene	2370	130		ug/kg	SW846 8270D
CT-ETPH (C9-C36)	67.8	22		mg/kg	CT-ETPH 7/06
Arsenic	1.1	1.0		mg/kg	SW846 6010C
Barium	38.7	5.0		mg/kg	SW846 6010C
Chromium	13.6	1.0		mg/kg	SW846 6010C
Lead	66.1	1.0		mg/kg	SW846 6010C

MC27709-1A SED-1

Lead	0.042	0.010		mg/l	SW846 6010C
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MC27709-2 SED-2

Acenaphthylene	197	150		ug/kg	SW846 8270D
Anthracene	236	150		ug/kg	SW846 8270D
Benzo(a)anthracene	822	150		ug/kg	SW846 8270D
Benzo(a)pyrene	747	150		ug/kg	SW846 8270D
Benzo(b)fluoranthene	622	150		ug/kg	SW846 8270D
Benzo(g,h,i)perylene	480	150		ug/kg	SW846 8270D
Benzo(k)fluoranthene	602	150		ug/kg	SW846 8270D
Chrysene	825	150		ug/kg	SW846 8270D
Fluoranthene	1480	150		ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene	431	150		ug/kg	SW846 8270D
Phenanthrene	1000	150		ug/kg	SW846 8270D
Pyrene	1770	150		ug/kg	SW846 8270D
CT-ETPH (C9-C36)	54.6	24		mg/kg	CT-ETPH 7/06
Arsenic	1.0	0.91		mg/kg	SW846 6010C
Barium	58.2	4.6		mg/kg	SW846 6010C
Chromium	10.3	0.91		mg/kg	SW846 6010C
Lead	8.6	0.91		mg/kg	SW846 6010C

Summary of Hits

Job Number: MC27709
Account: CDR Maguire
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT
Collected: 01/16/14



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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MC27709-2A SED-2

No hits reported in this sample.

MC27709-3 SED-3

Benzo(a)anthracene	407	160	ug/kg	SW846 8270D
Benzo(a)pyrene	429	160	ug/kg	SW846 8270D
Benzo(b)fluoranthene	443	160	ug/kg	SW846 8270D
Benzo(g,h,i)perylene	324	160	ug/kg	SW846 8270D
Benzo(k)fluoranthene	385	160	ug/kg	SW846 8270D
Chrysene	474	160	ug/kg	SW846 8270D
Fluoranthene	845	160	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene	283	160	ug/kg	SW846 8270D
Phenanthrene	397	160	ug/kg	SW846 8270D
Pyrene	879	160	ug/kg	SW846 8270D
CT-ETPH (C9-C36)	33.9	26	mg/kg	CT-ETPH 7/06
Arsenic	1.7	1.1	mg/kg	SW846 6010C
Barium	106	5.5	mg/kg	SW846 6010C
Chromium	17.0	1.1	mg/kg	SW846 6010C
Lead	19.7	1.1	mg/kg	SW846 6010C

MC27709-3A SED-3

No hits reported in this sample.

MC27709-4 SED-4

Benzo(a)anthracene	327	140	ug/kg	SW846 8270D
Benzo(a)pyrene	317	140	ug/kg	SW846 8270D
Benzo(b)fluoranthene	350	140	ug/kg	SW846 8270D
Benzo(g,h,i)perylene	205	140	ug/kg	SW846 8270D
Benzo(k)fluoranthene	202	140	ug/kg	SW846 8270D
Chrysene	367	140	ug/kg	SW846 8270D
Fluoranthene	621	140	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene	177	140	ug/kg	SW846 8270D
Phenanthrene	338	140	ug/kg	SW846 8270D
Pyrene	650	140	ug/kg	SW846 8270D
CT-ETPH (C9-C36)	35.0	21	mg/kg	CT-ETPH 7/06
Arsenic	1.1	0.98	mg/kg	SW846 6010C
Barium	43.0	4.9	mg/kg	SW846 6010C
Chromium	10.5	0.98	mg/kg	SW846 6010C
Lead	6.6	0.98	mg/kg	SW846 6010C

Summary of Hits

Job Number: MC27709
Account: CDR Maguire
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT
Collected: 01/16/14



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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MC27709-4A SED-4

No hits reported in this sample.

MC27709-5 GP-4 1-3'

Acenaphthylene	1680	540	ug/kg	SW846 8270D
Anthracene	706	540	ug/kg	SW846 8270D
Benzo(a)anthracene	3210	540	ug/kg	SW846 8270D
Benzo(a)pyrene	3850	540	ug/kg	SW846 8270D
Benzo(b)fluoranthene	4260	540	ug/kg	SW846 8270D
Benzo(g,h,i)perylene	3000	540	ug/kg	SW846 8270D
Benzo(k)fluoranthene	2800	540	ug/kg	SW846 8270D
Chrysene	4400	540	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene	779	540	ug/kg	SW846 8270D
Fluoranthene	6100	540	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene	2450	540	ug/kg	SW846 8270D
Phenanthrene	2700	540	ug/kg	SW846 8270D
Pyrene	6970	540	ug/kg	SW846 8270D
CT-ETPH (C9-C36)	290	90	mg/kg	CT-ETPH 7/06
Arsenic	1.6	0.90	mg/kg	SW846 6010C
Barium	43.9	4.5	mg/kg	SW846 6010C
Chromium	14.2	0.90	mg/kg	SW846 6010C
Lead	85.9	0.90	mg/kg	SW846 6010C
Mercury	0.034	0.034	mg/kg	SW846 7471B

MC27709-5A GP-4 1-3'

Lead	0.053	0.010	mg/l	SW846 6010C
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MC27709-6 GP-5 1-3'

Acenaphthylene	1290	550	ug/kg	SW846 8270D
Anthracene	716	550	ug/kg	SW846 8270D
Benzo(a)anthracene	3440	550	ug/kg	SW846 8270D
Benzo(a)pyrene	3630	550	ug/kg	SW846 8270D
Benzo(b)fluoranthene	2970	550	ug/kg	SW846 8270D
Benzo(g,h,i)perylene	2430	550	ug/kg	SW846 8270D
Benzo(k)fluoranthene	3310	550	ug/kg	SW846 8270D
Chrysene	4150	550	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene	662	550	ug/kg	SW846 8270D
Fluoranthene	6160	550	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene	2130	550	ug/kg	SW846 8270D
Phenanthrene	3210	550	ug/kg	SW846 8270D
Pyrene	6980	550	ug/kg	SW846 8270D

Summary of Hits

Job Number: MC27709
Account: CDR Maguire
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT
Collected: 01/16/14



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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CT-ETPH (C9-C36)		318	93		mg/kg	CT-ETPH 7/06
Arsenic		1.6	0.89		mg/kg	SW846 6010C
Barium		38.6	4.5		mg/kg	SW846 6010C
Chromium		23.0	0.89		mg/kg	SW846 6010C
Lead		89.1	0.89		mg/kg	SW846 6010C

MC27709-6A GP-5 1-3'

Lead		0.050	0.010		mg/l	SW846 6010C
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MC27709-7 GP-13 1-3'

Acenaphthylene		165	110		ug/kg	SW846 8270D
Benzo(a)anthracene		414	110		ug/kg	SW846 8270D
Benzo(a)pyrene		453	110		ug/kg	SW846 8270D
Benzo(b)fluoranthene		519	110		ug/kg	SW846 8270D
Benzo(g,h,i)perylene		306	110		ug/kg	SW846 8270D
Benzo(k)fluoranthene		302	110		ug/kg	SW846 8270D
Chrysene		503	110		ug/kg	SW846 8270D
Fluoranthene		839	110		ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene		280	110		ug/kg	SW846 8270D
Phenanthrene		405	110		ug/kg	SW846 8270D
Pyrene		893	110		ug/kg	SW846 8270D
CT-ETPH (C9-C36)		22.4	19		mg/kg	CT-ETPH 7/06
Arsenic		1.7	0.92		mg/kg	SW846 6010C
Barium		47.4	4.6		mg/kg	SW846 6010C
Chromium		16.6	0.92		mg/kg	SW846 6010C
Lead		16.9	0.92		mg/kg	SW846 6010C

MC27709-7A GP-13 1-3'

No hits reported in this sample.

MC27709-8 GP-14 2-4'

Acetone		51.1	11		ug/kg	SW846 8260C
Benzo(a)anthracene		883	550		ug/kg	SW846 8270D
Benzo(a)pyrene		1050	550		ug/kg	SW846 8270D
Benzo(b)fluoranthene		1030	550		ug/kg	SW846 8270D
Benzo(g,h,i)perylene		811	550		ug/kg	SW846 8270D
Benzo(k)fluoranthene		912	550		ug/kg	SW846 8270D
Chrysene		1100	550		ug/kg	SW846 8270D
Fluoranthene		1690	550		ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene		675	550		ug/kg	SW846 8270D
Phenanthrene		738	550		ug/kg	SW846 8270D

Summary of Hits

Job Number: MC27709
Account: CDR Maguire
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT
Collected: 01/16/14



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Pyrene		1670	550		ug/kg	SW846 8270D
CT-ETPH (C9-C36)		57.3	18		mg/kg	CT-ETPH 7/06
Arsenic		2.1	0.91		mg/kg	SW846 6010C
Barium		44.2	4.5		mg/kg	SW846 6010C
Chromium		12.9	0.91		mg/kg	SW846 6010C
Lead		42.3	0.91		mg/kg	SW846 6010C
MC27709-8A GP-14 2-4'						
Lead		0.016	0.010		mg/l	SW846 6010C
MC27709-9 GP-17 1-3'						
Acetone		41.5	11		ug/kg	SW846 8260C
Acenaphthylene		2090	540		ug/kg	SW846 8270D
Anthracene		1190	540		ug/kg	SW846 8270D
Benzo(a)anthracene		5250	540		ug/kg	SW846 8270D
Benzo(a)pyrene		5160	540		ug/kg	SW846 8270D
Benzo(b)fluoranthene		5000	540		ug/kg	SW846 8270D
Benzo(g,h,i)perylene		3310	540		ug/kg	SW846 8270D
Benzo(k)fluoranthene		4010	540		ug/kg	SW846 8270D
Chrysene		6090	540		ug/kg	SW846 8270D
Dibenzo(a,h)anthracene		941	540		ug/kg	SW846 8270D
Fluoranthene		9810	540		ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene		2870	540		ug/kg	SW846 8270D
Phenanthrene		5770	540		ug/kg	SW846 8270D
Pyrene		10700	540		ug/kg	SW846 8270D
CT-ETPH (C9-C36)		299	89		mg/kg	CT-ETPH 7/06
Arsenic		1.5	0.87		mg/kg	SW846 6010C
Barium		26.6	4.3		mg/kg	SW846 6010C
Chromium		11.3	0.87		mg/kg	SW846 6010C
Lead		127	0.87		mg/kg	SW846 6010C
MC27709-9A GP-17 1-3'						
Chromium		0.014	0.010		mg/l	SW846 6010C
Lead		0.079	0.010		mg/l	SW846 6010C
MC27709-10 GP-18 1-3'						
Acenaphthylene		3780	550		ug/kg	SW846 8270D
Anthracene		1950	550		ug/kg	SW846 8270D
Benzo(a)anthracene		10300	550		ug/kg	SW846 8270D
Benzo(a)pyrene		10900	550		ug/kg	SW846 8270D
Benzo(b)fluoranthene		11200	550		ug/kg	SW846 8270D

Summary of Hits

Job Number: MC27709
Account: CDR Maguire
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT
Collected: 01/16/14



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
		6880	550		ug/kg	SW846 8270D
		8380	550		ug/kg	SW846 8270D
		685	550		ug/kg	SW846 8270D
		12800	550		ug/kg	SW846 8270D
		2130	550		ug/kg	SW846 8270D
		19000	550		ug/kg	SW846 8270D
		6460	550		ug/kg	SW846 8270D
		7960	550		ug/kg	SW846 8270D
		19400	550		ug/kg	SW846 8270D
		668	87		mg/kg	CT-ETPH 7/06
		1.8	0.88		mg/kg	SW846 6010C
		34.4	4.4		mg/kg	SW846 6010C
		12.4	0.88		mg/kg	SW846 6010C
		268	0.88		mg/kg	SW846 6010C

MC27709-10A GP-18 1-3'

Lead	0.17	0.010		mg/l	SW846 6010C
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MC27709-11 TB-1

No hits reported in this sample.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: SED-1		
Lab Sample ID: MC27709-1		Date Sampled: 01/16/14
Matrix: SO - Sediment		Date Received: 01/16/14
Method: SW846 8260C		Percent Solids: 72.8
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M62806.D	1	01/21/14	KD	n/a	n/a	MSM2200
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	4.80 g	5.0 ml
Run #2		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	14	ug/kg	
107-13-1	Acrylonitrile	ND	36	ug/kg	
71-43-2	Benzene	ND	0.72	ug/kg	
108-86-1	Bromobenzene	ND	7.2	ug/kg	
75-27-4	Bromodichloromethane	ND	2.9	ug/kg	
75-25-2	Bromoform	ND	2.9	ug/kg	
74-83-9	Bromomethane	ND	2.9	ug/kg	
78-93-3	2-Butanone (MEK)	ND	14	ug/kg	
104-51-8	n-Butylbenzene	ND	7.2	ug/kg	
135-98-8	sec-Butylbenzene	ND	7.2	ug/kg	
98-06-6	tert-Butylbenzene	ND	7.2	ug/kg	
75-15-0	Carbon disulfide	ND	7.2	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.9	ug/kg	
108-90-7	Chlorobenzene	ND	2.9	ug/kg	
75-00-3	Chloroethane	ND	7.2	ug/kg	
67-66-3	Chloroform	ND	2.9	ug/kg	
74-87-3	Chloromethane	ND	7.2	ug/kg	
95-49-8	o-Chlorotoluene	ND	7.2	ug/kg	
106-43-4	p-Chlorotoluene	ND	7.2	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	7.2	ug/kg	
124-48-1	Dibromochloromethane	ND	2.9	ug/kg	
106-93-4	1,2-Dibromoethane	ND	2.9	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	2.9	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	2.9	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	2.9	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	2.9	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.9	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.9	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.9	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.9	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.9	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.9	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

4.1
4

Report of Analysis

Client Sample ID:	SED-1	Date Sampled:	01/16/14
Lab Sample ID:	MC27709-1	Date Received:	01/16/14
Matrix:	SO - Sediment	Percent Solids:	72.8
Method:	SW846 8260C		
Project:	Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	7.2	ug/kg	
594-20-7	2,2-Dichloropropane	ND	7.2	ug/kg	
563-58-6	1,1-Dichloropropene	ND	7.2	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.9	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.9	ug/kg	
100-41-4	Ethylbenzene	ND	2.9	ug/kg	
76-13-1	Freon 113	ND	7.2	ug/kg	
87-68-3	Hexachlorobutadiene	ND	7.2	ug/kg	
591-78-6	2-Hexanone	ND	14	ug/kg	
98-82-8	Isopropylbenzene	ND	7.2	ug/kg	
99-87-6	p-Isopropyltoluene	ND	7.2	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.9	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	7.2	ug/kg	
74-95-3	Methylene bromide	ND	7.2	ug/kg	
75-09-2	Methylene chloride	ND	2.9	ug/kg	
91-20-3	Naphthalene	ND	7.2	ug/kg	
103-65-1	n-Propylbenzene	ND	7.2	ug/kg	
100-42-5	Styrene	ND	7.2	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	7.2	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.9	ug/kg	
127-18-4	Tetrachloroethene	ND	2.9	ug/kg	
109-99-9	Tetrahydrofuran	ND	14	ug/kg	
108-88-3	Toluene	ND	7.2	ug/kg	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	7.2	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	7.2	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	7.2	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.9	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.9	ug/kg	
79-01-6	Trichloroethene	ND	2.9	ug/kg	
75-69-4	Trichlorofluoromethane	ND	2.9	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	7.2	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	7.2	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	7.2	ug/kg	
75-01-4	Vinyl chloride	ND	2.9	ug/kg	
	m,p-Xylene	ND	2.9	ug/kg	
95-47-6	o-Xylene	ND	2.9	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%		70-130%

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: SED-1		Date Sampled: 01/16/14
Lab Sample ID: MC27709-1		Date Received: 01/16/14
Matrix: SO - Sediment		Percent Solids: 72.8
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	89%		70-130%
460-00-4	4-Bromofluorobenzene	87%		70-130%

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:	SED-1	Date Sampled:	01/16/14
Lab Sample ID:	MC27709-1	Date Received:	01/16/14
Matrix:	SO - Sediment	Percent Solids:	72.8
Method:	SW846 8270D SW846 3546		
Project:	Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W17337.D	1	01/21/14	KR	01/17/14	OP36569	MSW763
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	330	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	660	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	660	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	660	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1300	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	660	ug/kg	
95-48-7	2-Methylphenol	ND	660	ug/kg	
106-44-5	4-Methylphenol	ND	660	ug/kg	
88-75-5	2-Nitrophenol	ND	660	ug/kg	
100-02-7	4-Nitrophenol	ND	1300	ug/kg	
87-86-5	Pentachlorophenol	ND	660	ug/kg	
108-95-2	Phenol	ND	330	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	660	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	660	ug/kg	
83-32-9	Acenaphthene	ND	130	ug/kg	
208-96-8	Acenaphthylene	274	130	ug/kg	
62-53-3	Aniline	ND	660	ug/kg	
120-12-7	Anthracene	184	130	ug/kg	
56-55-3	Benzo(a)anthracene	1260	130	ug/kg	
50-32-8	Benzo(a)pyrene	1370	130	ug/kg	
205-99-2	Benzo(b)fluoranthene	1460	130	ug/kg	
191-24-2	Benzo(g,h,i)perylene	910	130	ug/kg	
207-08-9	Benzo(k)fluoranthene	1050	130	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	330	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	330	ug/kg	
91-58-7	2-Chloronaphthalene	ND	330	ug/kg	
106-47-8	4-Chloroaniline	ND	660	ug/kg	
86-74-8	Carbazole	ND	130	ug/kg	
218-01-9	Chrysene	1420	130	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	330	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	330	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	330	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:	SED-1	Date Sampled:	01/16/14
Lab Sample ID:	MC27709-1	Date Received:	01/16/14
Matrix:	SO - Sediment	Percent Solids:	72.8
Method:	SW846 8270D SW846 3546		
Project:	Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	330	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	660	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	660	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	330	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	273	130	ug/kg	
132-64-9	Dibenzofuran	ND	130	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	330	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	330	ug/kg	
84-66-2	Diethyl phthalate	ND	330	ug/kg	
131-11-3	Dimethyl phthalate	ND	330	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	330	ug/kg	
206-44-0	Fluoranthene	2160	130	ug/kg	
86-73-7	Fluorene	ND	130	ug/kg	
118-74-1	Hexachlorobenzene	ND	330	ug/kg	
87-68-3	Hexachlorobutadiene	ND	330	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	660	ug/kg	
67-72-1	Hexachloroethane	ND	330	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	832	130	ug/kg	
78-59-1	Isophorone	ND	330	ug/kg	
91-57-6	2-Methylnaphthalene	ND	130	ug/kg	
88-74-4	2-Nitroaniline	ND	660	ug/kg	
99-09-2	3-Nitroaniline	ND	660	ug/kg	
100-01-6	4-Nitroaniline	ND	660	ug/kg	
91-20-3	Naphthalene	ND	130	ug/kg	
98-95-3	Nitrobenzene	ND	330	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	330	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	330	ug/kg	
82-68-8	Pentachloronitrobenzene	ND	660	ug/kg	
85-01-8	Phenanthrene	840	130	ug/kg	
129-00-0	Pyrene	2370	130	ug/kg	
110-86-1	Pyridine	ND	660	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	660	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	330	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	64%		30-130%
4165-62-2	Phenol-d5	63%		30-130%
118-79-6	2,4,6-Tribromophenol	73%		30-130%
4165-60-0	Nitrobenzene-d5	66%		30-130%

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: SED-1		Date Sampled: 01/16/14
Lab Sample ID: MC27709-1		Date Received: 01/16/14
Matrix: SO - Sediment		Percent Solids: 72.8
Method: SW846 8270D SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

ABN RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	70%		30-130%
1718-51-0	Terphenyl-d14	78%		30-130%

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:	SED-1	Date Sampled:	01/16/14
Lab Sample ID:	MC27709-1	Date Received:	01/16/14
Matrix:	SO - Sediment	Percent Solids:	72.8
Method:	SW846 8151 SW846 3550B		
Project:	Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB53976.D	1	01/21/14	CZ	01/17/14	OP36565	GBB3153
Run #2							

Run #	Initial Weight	Final Volume
Run #1	30.2 g	5.0 ml
Run #2		

CT Chlorinated Herbicides RCP List

CAS No.	Compound	Result	RL	Units	Q
94-75-7	2,4-D	ND	27	ug/kg	
93-72-1	2,4,5-TP (Silvex)	ND	27	ug/kg	
93-76-5	2,4,5-T	ND	27	ug/kg	
75-99-0	Dalapon	ND	27	ug/kg	
1918-00-9	Dicamba	ND	27	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	110%		30-150%
19719-28-9	2,4-DCAA	115%		30-150%

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: SED-1		
Lab Sample ID: MC27709-1		Date Sampled: 01/16/14
Matrix: SO - Sediment		Date Received: 01/16/14
Method: SW846 8081 SW846 3546		Percent Solids: 72.8
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ87757.D	1	01/24/14	CZ	01/17/14	OP36566	GYZ7478
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	15.7 g	10.0 ml
Run #2		

Pesticide RCP List

CAS No.	Compound	Result	RL	Units	Q
15972-60-8	Alachlor	ND	87	ug/kg	
309-00-2	Aldrin	ND	8.7	ug/kg	
319-84-6	alpha-BHC	ND	8.7	ug/kg	
319-85-7	beta-BHC	ND	8.7	ug/kg	
319-86-8	delta-BHC	ND	8.7	ug/kg	
58-89-9	gamma-BHC (Lindane)	ND	8.7	ug/kg	
12789-03-6	Chlordane	ND	87	ug/kg	
60-57-1	Dieldrin	ND	8.7	ug/kg	
72-54-8	4,4'-DDD	ND	8.7	ug/kg	
72-55-9	4,4'-DDE	ND	8.7	ug/kg	
50-29-3	4,4'-DDT	ND	8.7	ug/kg	
72-20-8	Endrin	ND	8.7	ug/kg	
1031-07-8	Endosulfan sulfate	ND	8.7	ug/kg	
7421-93-4	Endrin aldehyde	ND	8.7	ug/kg	
959-98-8	Endosulfan-I	ND	8.7	ug/kg	
33213-65-9	Endosulfan-II	ND	8.7	ug/kg	
76-44-8	Heptachlor	ND	8.7	ug/kg	
1024-57-3	Heptachlor epoxide	ND	8.7	ug/kg	
72-43-5	Methoxychlor	ND	8.7	ug/kg	
53494-70-5	Endrin ketone	ND	8.7	ug/kg	
8001-35-2	Toxaphene	ND	87	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	74%		30-150%
877-09-8	Tetrachloro-m-xylene	68%		30-150%
2051-24-3	Decachlorobiphenyl	114%		30-150%
2051-24-3	Decachlorobiphenyl	78%		30-150%

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: SED-1		Date Sampled: 01/16/14
Lab Sample ID: MC27709-1		Date Received: 01/16/14
Matrix: SO - Sediment		Percent Solids: 72.8
Method: SW846 8082 SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK34135.D	1	01/21/14	NK	01/17/14	OP36567	GBK1121
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	15.5 g	10.0 ml
Run #2		

CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	44	ug/kg	
11104-28-2	Aroclor 1221	ND	44	ug/kg	
11141-16-5	Aroclor 1232	ND	44	ug/kg	
53469-21-9	Aroclor 1242	ND	44	ug/kg	
12672-29-6	Aroclor 1248	ND	44	ug/kg	
11097-69-1	Aroclor 1254	ND	44	ug/kg	
11096-82-5	Aroclor 1260	ND	44	ug/kg	
37324-23-5	Aroclor 1262	ND	44	ug/kg	
11100-14-4	Aroclor 1268	ND	44	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	87%		30-150%
877-09-8	Tetrachloro-m-xylene	77%		30-150%
2051-24-3	Decachlorobiphenyl	85%		30-150%
2051-24-3	Decachlorobiphenyl	85%		30-150%

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: SED-1		Date Sampled: 01/16/14
Lab Sample ID: MC27709-1		Date Received: 01/16/14
Matrix: SO - Sediment		Percent Solids: 72.8
Method: CT-ETPH 7/06 SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC659755.D	1	01/23/14	KN	01/17/14	OP36574	GBC3573
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.3 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-ETPH (C9-C36)	67.8	22	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

4.1
4

Report of Analysis

Client Sample ID: SED-1		Date Sampled: 01/16/14
Lab Sample ID: MC27709-1		Date Received: 01/16/14
Matrix: SO - Sediment		Percent Solids: 72.8
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	1.1	1.0	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Barium	38.7	5.0	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Cadmium	< 0.40	0.40	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Chromium	13.6	1.0	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Lead	66.1	1.0	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Mercury	< 0.037	0.037	mg/kg	1	01/20/14	01/20/14 EAL	SW846 7471B ¹	SW846 7471B ³
Selenium	< 1.0	1.0	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Silver	< 0.50	0.50	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴

- (1) Instrument QC Batch: MA16666
- (2) Instrument QC Batch: MA16668
- (3) Prep QC Batch: MP22392
- (4) Prep QC Batch: MP22393

RL = Reporting Limit

4.1
4

Report of Analysis

Client Sample ID: SED-1		Date Sampled: 01/16/14
Lab Sample ID: MC27709-1A		Date Received: 01/16/14
Matrix: SO - Sediment		Percent Solids: 72.8
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, 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	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Barium	< 0.50	0.50		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Cadmium	< 0.0040	0.0040		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Chromium	< 0.010	0.010		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Lead	0.042	0.010		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Mercury	< 0.00020	0.00020		mg/l	1	01/21/14	01/22/14 SA	SW846 7470A ¹	SW846 7470A ⁴
Selenium	< 0.025	0.025		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Silver	< 0.0050	0.0050		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³

- (1) Instrument QC Batch: MA16673
- (2) Instrument QC Batch: MA16678
- (3) Prep QC Batch: MP22395
- (4) Prep QC Batch: MP22406

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

4.2
4

Report of Analysis

Client Sample ID: SED-2		Date Sampled: 01/16/14
Lab Sample ID: MC27709-2		Date Received: 01/16/14
Matrix: SO - Sediment		Percent Solids: 68.4
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M62807.D	1	01/21/14	KD	n/a	n/a	MSM2200
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	5.00 g	5.0 ml
Run #2		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	15	ug/kg	
107-13-1	Acrylonitrile	ND	37	ug/kg	
71-43-2	Benzene	ND	0.73	ug/kg	
108-86-1	Bromobenzene	ND	7.3	ug/kg	
75-27-4	Bromodichloromethane	ND	2.9	ug/kg	
75-25-2	Bromoform	ND	2.9	ug/kg	
74-83-9	Bromomethane	ND	2.9	ug/kg	
78-93-3	2-Butanone (MEK)	ND	15	ug/kg	
104-51-8	n-Butylbenzene	ND	7.3	ug/kg	
135-98-8	sec-Butylbenzene	ND	7.3	ug/kg	
98-06-6	tert-Butylbenzene	ND	7.3	ug/kg	
75-15-0	Carbon disulfide	ND	7.3	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.9	ug/kg	
108-90-7	Chlorobenzene	ND	2.9	ug/kg	
75-00-3	Chloroethane	ND	7.3	ug/kg	
67-66-3	Chloroform	ND	2.9	ug/kg	
74-87-3	Chloromethane	ND	7.3	ug/kg	
95-49-8	o-Chlorotoluene	ND	7.3	ug/kg	
106-43-4	p-Chlorotoluene	ND	7.3	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	7.3	ug/kg	
124-48-1	Dibromochloromethane	ND	2.9	ug/kg	
106-93-4	1,2-Dibromoethane	ND	2.9	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	2.9	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	2.9	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	2.9	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	2.9	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.9	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.9	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.9	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.9	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.9	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.9	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

4.3
4

Report of Analysis

Client Sample ID:	SED-2	Date Sampled:	01/16/14
Lab Sample ID:	MC27709-2	Date Received:	01/16/14
Matrix:	SO - Sediment	Percent Solids:	68.4
Method:	SW846 8260C		
Project:	Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	7.3	ug/kg	
594-20-7	2,2-Dichloropropane	ND	7.3	ug/kg	
563-58-6	1,1-Dichloropropene	ND	7.3	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.9	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.9	ug/kg	
100-41-4	Ethylbenzene	ND	2.9	ug/kg	
76-13-1	Freon 113	ND	7.3	ug/kg	
87-68-3	Hexachlorobutadiene	ND	7.3	ug/kg	
591-78-6	2-Hexanone	ND	15	ug/kg	
98-82-8	Isopropylbenzene	ND	7.3	ug/kg	
99-87-6	p-Isopropyltoluene	ND	7.3	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.9	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	7.3	ug/kg	
74-95-3	Methylene bromide	ND	7.3	ug/kg	
75-09-2	Methylene chloride	ND	2.9	ug/kg	
91-20-3	Naphthalene	ND	7.3	ug/kg	
103-65-1	n-Propylbenzene	ND	7.3	ug/kg	
100-42-5	Styrene	ND	7.3	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	7.3	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.9	ug/kg	
127-18-4	Tetrachloroethene	ND	2.9	ug/kg	
109-99-9	Tetrahydrofuran	ND	15	ug/kg	
108-88-3	Toluene	ND	7.3	ug/kg	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	7.3	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	7.3	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	7.3	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.9	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.9	ug/kg	
79-01-6	Trichloroethene	ND	2.9	ug/kg	
75-69-4	Trichlorofluoromethane	ND	2.9	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	7.3	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	7.3	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	7.3	ug/kg	
75-01-4	Vinyl chloride	ND	2.9	ug/kg	
	m,p-Xylene	ND	2.9	ug/kg	
95-47-6	o-Xylene	ND	2.9	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	87%		70-130%

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: SED-2		Date Sampled: 01/16/14
Lab Sample ID: MC27709-2		Date Received: 01/16/14
Matrix: SO - Sediment		Percent Solids: 68.4
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	88%		70-130%
460-00-4	4-Bromofluorobenzene	86%		70-130%

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:	SED-2	Date Sampled:	01/16/14
Lab Sample ID:	MC27709-2	Date Received:	01/16/14
Matrix:	SO - Sediment	Percent Solids:	68.4
Method:	SW846 8270D SW846 3546		
Project:	Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W17338.D	1	01/21/14	KR	01/17/14	OP36569	MSW763
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	360	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	730	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	730	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	730	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1500	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	730	ug/kg	
95-48-7	2-Methylphenol	ND	730	ug/kg	
106-44-5	4-Methylphenol	ND	730	ug/kg	
88-75-5	2-Nitrophenol	ND	730	ug/kg	
100-02-7	4-Nitrophenol	ND	1500	ug/kg	
87-86-5	Pentachlorophenol	ND	730	ug/kg	
108-95-2	Phenol	ND	360	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	730	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	730	ug/kg	
83-32-9	Acenaphthene	ND	150	ug/kg	
208-96-8	Acenaphthylene	197	150	ug/kg	
62-53-3	Aniline	ND	730	ug/kg	
120-12-7	Anthracene	236	150	ug/kg	
56-55-3	Benzo(a)anthracene	822	150	ug/kg	
50-32-8	Benzo(a)pyrene	747	150	ug/kg	
205-99-2	Benzo(b)fluoranthene	622	150	ug/kg	
191-24-2	Benzo(g,h,i)perylene	480	150	ug/kg	
207-08-9	Benzo(k)fluoranthene	602	150	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	360	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	360	ug/kg	
91-58-7	2-Chloronaphthalene	ND	360	ug/kg	
106-47-8	4-Chloroaniline	ND	730	ug/kg	
86-74-8	Carbazole	ND	150	ug/kg	
218-01-9	Chrysene	825	150	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	360	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	360	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	360	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:	SED-2	Date Sampled:	01/16/14
Lab Sample ID:	MC27709-2	Date Received:	01/16/14
Matrix:	SO - Sediment	Percent Solids:	68.4
Method:	SW846 8270D SW846 3546		
Project:	Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	360	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	730	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	730	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	360	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	150	ug/kg	
132-64-9	Dibenzofuran	ND	150	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	360	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	360	ug/kg	
84-66-2	Diethyl phthalate	ND	360	ug/kg	
131-11-3	Dimethyl phthalate	ND	360	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	360	ug/kg	
206-44-0	Fluoranthene	1480	150	ug/kg	
86-73-7	Fluorene	ND	150	ug/kg	
118-74-1	Hexachlorobenzene	ND	360	ug/kg	
87-68-3	Hexachlorobutadiene	ND	360	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	730	ug/kg	
67-72-1	Hexachloroethane	ND	360	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	431	150	ug/kg	
78-59-1	Isophorone	ND	360	ug/kg	
91-57-6	2-Methylnaphthalene	ND	150	ug/kg	
88-74-4	2-Nitroaniline	ND	730	ug/kg	
99-09-2	3-Nitroaniline	ND	730	ug/kg	
100-01-6	4-Nitroaniline	ND	730	ug/kg	
91-20-3	Naphthalene	ND	150	ug/kg	
98-95-3	Nitrobenzene	ND	360	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	360	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	360	ug/kg	
82-68-8	Pentachloronitrobenzene	ND	730	ug/kg	
85-01-8	Phenanthrene	1000	150	ug/kg	
129-00-0	Pyrene	1770	150	ug/kg	
110-86-1	Pyridine	ND	730	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	730	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	360	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	66%		30-130%
4165-62-2	Phenol-d5	65%		30-130%
118-79-6	2,4,6-Tribromophenol	75%		30-130%
4165-60-0	Nitrobenzene-d5	74%		30-130%

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: SED-2		Date Sampled: 01/16/14
Lab Sample ID: MC27709-2		Date Received: 01/16/14
Matrix: SO - Sediment		Percent Solids: 68.4
Method: SW846 8270D SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

ABN RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	73%		30-130%
1718-51-0	Terphenyl-d14	80%		30-130%

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: SED-2		
Lab Sample ID: MC27709-2		Date Sampled: 01/16/14
Matrix: SO - Sediment		Date Received: 01/16/14
Method: SW846 8151 SW846 3550B		Percent Solids: 68.4
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB53977.D	1	01/21/14	CZ	01/17/14	OP36565	GBB3153
Run #2							

Run #	Initial Weight	Final Volume
Run #1	30.9 g	5.0 ml
Run #2		

CT Chlorinated Herbicides RCP List

CAS No.	Compound	Result	RL	Units	Q
94-75-7	2,4-D	ND	28	ug/kg	
93-72-1	2,4,5-TP (Silvex)	ND	28	ug/kg	
93-76-5	2,4,5-T	ND	28	ug/kg	
75-99-0	Dalapon	ND	28	ug/kg	
1918-00-9	Dicamba	ND	28	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	103%		30-150%
19719-28-9	2,4-DCAA	114%		30-150%

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:	SED-2	Date Sampled:	01/16/14
Lab Sample ID:	MC27709-2	Date Received:	01/16/14
Matrix:	SO - Sediment	Percent Solids:	68.4
Method:	SW846 8081 SW846 3546		
Project:	Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ87758.D	1	01/24/14	CZ	01/17/14	OP36566	GYZ7478
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	15.5 g	10.0 ml
Run #2		

Pesticide RCP List

CAS No.	Compound	Result	RL	Units	Q
15972-60-8	Alachlor	ND	95	ug/kg	
309-00-2	Aldrin	ND	9.5	ug/kg	
319-84-6	alpha-BHC	ND	9.5	ug/kg	
319-85-7	beta-BHC	ND	9.5	ug/kg	
319-86-8	delta-BHC	ND	9.5	ug/kg	
58-89-9	gamma-BHC (Lindane)	ND	9.5	ug/kg	
12789-03-6	Chlordane	ND	95	ug/kg	
60-57-1	Dieldrin	ND	9.5	ug/kg	
72-54-8	4,4'-DDD	ND	9.5	ug/kg	
72-55-9	4,4'-DDE	ND	9.5	ug/kg	
50-29-3	4,4'-DDT	ND	9.5	ug/kg	
72-20-8	Endrin	ND	9.5	ug/kg	
1031-07-8	Endosulfan sulfate	ND	9.5	ug/kg	
7421-93-4	Endrin aldehyde	ND	9.5	ug/kg	
959-98-8	Endosulfan-I	ND	9.5	ug/kg	
33213-65-9	Endosulfan-II	ND	9.5	ug/kg	
76-44-8	Heptachlor	ND	9.5	ug/kg	
1024-57-3	Heptachlor epoxide	ND	9.5	ug/kg	
72-43-5	Methoxychlor	ND	9.5	ug/kg	
53494-70-5	Endrin ketone	ND	9.5	ug/kg	
8001-35-2	Toxaphene	ND	95	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	83%		30-150%
877-09-8	Tetrachloro-m-xylene	80%		30-150%
2051-24-3	Decachlorobiphenyl	89%		30-150%
2051-24-3	Decachlorobiphenyl	72%		30-150%

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: SED-2		Date Sampled: 01/16/14
Lab Sample ID: MC27709-2		Date Received: 01/16/14
Matrix: SO - Sediment		Percent Solids: 68.4
Method: SW846 8082 SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK34136.D	1	01/21/14	NK	01/17/14	OP36567	GBK1121
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	48	ug/kg	
11104-28-2	Aroclor 1221	ND	48	ug/kg	
11141-16-5	Aroclor 1232	ND	48	ug/kg	
53469-21-9	Aroclor 1242	ND	48	ug/kg	
12672-29-6	Aroclor 1248	ND	48	ug/kg	
11097-69-1	Aroclor 1254	ND	48	ug/kg	
11096-82-5	Aroclor 1260	ND	48	ug/kg	
37324-23-5	Aroclor 1262	ND	48	ug/kg	
11100-14-4	Aroclor 1268	ND	48	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	104%		30-150%
877-09-8	Tetrachloro-m-xylene	90%		30-150%
2051-24-3	Decachlorobiphenyl	97%		30-150%
2051-24-3	Decachlorobiphenyl	98%		30-150%

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: SED-2		Date Sampled: 01/16/14
Lab Sample ID: MC27709-2		Date Received: 01/16/14
Matrix: SO - Sediment		Percent Solids: 68.4
Method: CT-ETPH 7/06 SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC659751.D	1	01/23/14	KN	01/17/14	OP36574	GBC3573
Run #2							

Run #	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)	54.6	24	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

4.3
4

Report of Analysis

Client Sample ID: SED-2		Date Sampled: 01/16/14
Lab Sample ID: MC27709-2		Date Received: 01/16/14
Matrix: SO - Sediment		Percent Solids: 68.4
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	1.0	0.91	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Barium	58.2	4.6	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Cadmium	< 0.37	0.37	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Chromium	10.3	0.91	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Lead	8.6	0.91	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Mercury	< 0.041	0.041	mg/kg	1	01/20/14	01/20/14 EAL	SW846 7471B ¹	SW846 7471B ³
Selenium	< 0.91	0.91	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Silver	< 0.46	0.46	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴

- (1) Instrument QC Batch: MA16666
- (2) Instrument QC Batch: MA16668
- (3) Prep QC Batch: MP22392
- (4) Prep QC Batch: MP22393

RL = Reporting Limit

4.3
4

Report of Analysis

Client Sample ID: SED-2		Date Sampled: 01/16/14
Lab Sample ID: MC27709-2A		Date Received: 01/16/14
Matrix: SO - Sediment		Percent Solids: 68.4
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, 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	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Barium	< 0.50	0.50		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Cadmium	< 0.0040	0.0040		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Chromium	< 0.010	0.010		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Lead	< 0.010	0.010		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Mercury	< 0.00020	0.00020		mg/l	1	01/21/14	01/22/14 SA	SW846 7470A ¹	SW846 7470A ⁴
Selenium	< 0.025	0.025		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Silver	< 0.0050	0.0050		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³

- (1) Instrument QC Batch: MA16673
- (2) Instrument QC Batch: MA16678
- (3) Prep QC Batch: MP22395
- (4) Prep QC Batch: MP22406

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

4.4
4

Report of Analysis

Client Sample ID: SED-3		Date Sampled: 01/16/14
Lab Sample ID: MC27709-3		Date Received: 01/16/14
Matrix: SO - Sediment		Percent Solids: 62.9
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M62808.D	1	01/21/14	KD	n/a	n/a	MSM2200
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	4.91 g	5.0 ml
Run #2		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	16	ug/kg	
107-13-1	Acrylonitrile	ND	40	ug/kg	
71-43-2	Benzene	ND	0.81	ug/kg	
108-86-1	Bromobenzene	ND	8.1	ug/kg	
75-27-4	Bromodichloromethane	ND	3.2	ug/kg	
75-25-2	Bromoform	ND	3.2	ug/kg	
74-83-9	Bromomethane	ND	3.2	ug/kg	
78-93-3	2-Butanone (MEK)	ND	16	ug/kg	
104-51-8	n-Butylbenzene	ND	8.1	ug/kg	
135-98-8	sec-Butylbenzene	ND	8.1	ug/kg	
98-06-6	tert-Butylbenzene	ND	8.1	ug/kg	
75-15-0	Carbon disulfide	ND	8.1	ug/kg	
56-23-5	Carbon tetrachloride	ND	3.2	ug/kg	
108-90-7	Chlorobenzene	ND	3.2	ug/kg	
75-00-3	Chloroethane	ND	8.1	ug/kg	
67-66-3	Chloroform	ND	3.2	ug/kg	
74-87-3	Chloromethane	ND	8.1	ug/kg	
95-49-8	o-Chlorotoluene	ND	8.1	ug/kg	
106-43-4	p-Chlorotoluene	ND	8.1	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	8.1	ug/kg	
124-48-1	Dibromochloromethane	ND	3.2	ug/kg	
106-93-4	1,2-Dibromoethane	ND	3.2	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	3.2	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	3.2	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	3.2	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	3.2	ug/kg	
75-34-3	1,1-Dichloroethane	ND	3.2	ug/kg	
107-06-2	1,2-Dichloroethane	ND	3.2	ug/kg	
75-35-4	1,1-Dichloroethene	ND	3.2	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	3.2	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	3.2	ug/kg	
78-87-5	1,2-Dichloropropane	ND	3.2	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

4.5
4

Report of Analysis

Client Sample ID:	SED-3	Date Sampled:	01/16/14
Lab Sample ID:	MC27709-3	Date Received:	01/16/14
Matrix:	SO - Sediment	Percent Solids:	62.9
Method:	SW846 8260C		
Project:	Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	8.1	ug/kg	
594-20-7	2,2-Dichloropropane	ND	8.1	ug/kg	
563-58-6	1,1-Dichloropropene	ND	8.1	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	3.2	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	3.2	ug/kg	
100-41-4	Ethylbenzene	ND	3.2	ug/kg	
76-13-1	Freon 113	ND	8.1	ug/kg	
87-68-3	Hexachlorobutadiene	ND	8.1	ug/kg	
591-78-6	2-Hexanone	ND	16	ug/kg	
98-82-8	Isopropylbenzene	ND	8.1	ug/kg	
99-87-6	p-Isopropyltoluene	ND	8.1	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	3.2	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	8.1	ug/kg	
74-95-3	Methylene bromide	ND	8.1	ug/kg	
75-09-2	Methylene chloride	ND	3.2	ug/kg	
91-20-3	Naphthalene	ND	8.1	ug/kg	
103-65-1	n-Propylbenzene	ND	8.1	ug/kg	
100-42-5	Styrene	ND	8.1	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	8.1	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	3.2	ug/kg	
127-18-4	Tetrachloroethene	ND	3.2	ug/kg	
109-99-9	Tetrahydrofuran	ND	16	ug/kg	
108-88-3	Toluene	ND	8.1	ug/kg	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	8.1	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	8.1	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	8.1	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	3.2	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	3.2	ug/kg	
79-01-6	Trichloroethene	ND	3.2	ug/kg	
75-69-4	Trichlorofluoromethane	ND	3.2	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	8.1	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	8.1	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	8.1	ug/kg	
75-01-4	Vinyl chloride	ND	3.2	ug/kg	
	m,p-Xylene	ND	3.2	ug/kg	
95-47-6	o-Xylene	ND	3.2	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		70-130%

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: SED-3		Date Sampled: 01/16/14
Lab Sample ID: MC27709-3		Date Received: 01/16/14
Matrix: SO - Sediment		Percent Solids: 62.9
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	90%		70-130%
460-00-4	4-Bromofluorobenzene	88%		70-130%

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: SED-3		
Lab Sample ID: MC27709-3		Date Sampled: 01/16/14
Matrix: SO - Sediment		Date Received: 01/16/14
Method: SW846 8270D SW846 3546		Percent Solids: 62.9
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W17339.D	1	01/21/14	KR	01/17/14	OP36569	MSW763
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.3 g	1.0 ml
Run #2		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
95-57-8	2-Chlorophenol	ND	390	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	780	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	780	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	780	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1600	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	780	ug/kg	
95-48-7	2-Methylphenol	ND	780	ug/kg	
106-44-5	4-Methylphenol	ND	780	ug/kg	
88-75-5	2-Nitrophenol	ND	780	ug/kg	
100-02-7	4-Nitrophenol	ND	1600	ug/kg	
87-86-5	Pentachlorophenol	ND	780	ug/kg	
108-95-2	Phenol	ND	390	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	780	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	780	ug/kg	
83-32-9	Acenaphthene	ND	160	ug/kg	
208-96-8	Acenaphthylene	ND	160	ug/kg	
62-53-3	Aniline	ND	780	ug/kg	
120-12-7	Anthracene	ND	160	ug/kg	
56-55-3	Benzo(a)anthracene	407	160	ug/kg	
50-32-8	Benzo(a)pyrene	429	160	ug/kg	
205-99-2	Benzo(b)fluoranthene	443	160	ug/kg	
191-24-2	Benzo(g,h,i)perylene	324	160	ug/kg	
207-08-9	Benzo(k)fluoranthene	385	160	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	390	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	390	ug/kg	
91-58-7	2-Chloronaphthalene	ND	390	ug/kg	
106-47-8	4-Chloroaniline	ND	780	ug/kg	
86-74-8	Carbazole	ND	160	ug/kg	
218-01-9	Chrysene	474	160	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	390	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	390	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	390	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: SED-3		Date Sampled: 01/16/14
Lab Sample ID: MC27709-3		Date Received: 01/16/14
Matrix: SO - Sediment		Percent Solids: 62.9
Method: SW846 8270D SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	390	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	780	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	780	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	390	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	160	ug/kg	
132-64-9	Dibenzofuran	ND	160	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	390	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	390	ug/kg	
84-66-2	Diethyl phthalate	ND	390	ug/kg	
131-11-3	Dimethyl phthalate	ND	390	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	390	ug/kg	
206-44-0	Fluoranthene	845	160	ug/kg	
86-73-7	Fluorene	ND	160	ug/kg	
118-74-1	Hexachlorobenzene	ND	390	ug/kg	
87-68-3	Hexachlorobutadiene	ND	390	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	780	ug/kg	
67-72-1	Hexachloroethane	ND	390	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	283	160	ug/kg	
78-59-1	Isophorone	ND	390	ug/kg	
91-57-6	2-Methylnaphthalene	ND	160	ug/kg	
88-74-4	2-Nitroaniline	ND	780	ug/kg	
99-09-2	3-Nitroaniline	ND	780	ug/kg	
100-01-6	4-Nitroaniline	ND	780	ug/kg	
91-20-3	Naphthalene	ND	160	ug/kg	
98-95-3	Nitrobenzene	ND	390	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	390	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	390	ug/kg	
82-68-8	Pentachloronitrobenzene	ND	780	ug/kg	
85-01-8	Phenanthrene	397	160	ug/kg	
129-00-0	Pyrene	879	160	ug/kg	
110-86-1	Pyridine	ND	780	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	780	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	390	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	67%		30-130%
4165-62-2	Phenol-d5	66%		30-130%
118-79-6	2,4,6-Tribromophenol	71%		30-130%
4165-60-0	Nitrobenzene-d5	75%		30-130%

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: SED-3		Date Sampled: 01/16/14
Lab Sample ID: MC27709-3		Date Received: 01/16/14
Matrix: SO - Sediment		Percent Solids: 62.9
Method: SW846 8270D SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

ABN RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	74%		30-130%
1718-51-0	Terphenyl-d14	76%		30-130%

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: SED-3		
Lab Sample ID: MC27709-3		Date Sampled: 01/16/14
Matrix: SO - Sediment		Date Received: 01/16/14
Method: SW846 8151 SW846 3550B		Percent Solids: 62.9
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB53978.D	1	01/21/14	CZ	01/17/14	OP36565	GBB3153
Run #2							

Run #	Initial Weight	Final Volume
Run #1	30.1 g	5.0 ml
Run #2		

CT Chlorinated Herbicides RCP List

CAS No.	Compound	Result	RL	Units	Q
94-75-7	2,4-D	ND	32	ug/kg	
93-72-1	2,4,5-TP (Silvex)	ND	32	ug/kg	
93-76-5	2,4,5-T	ND	32	ug/kg	
75-99-0	Dalapon	ND	32	ug/kg	
1918-00-9	Dicamba	ND	32	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	85%		30-150%
19719-28-9	2,4-DCAA	94%		30-150%

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: SED-3		
Lab Sample ID: MC27709-3		Date Sampled: 01/16/14
Matrix: SO - Sediment		Date Received: 01/16/14
Method: SW846 8081 SW846 3546		Percent Solids: 62.9
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ87759.D	1	01/24/14	CZ	01/17/14	OP36566	GYZ7478
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	15.6 g	10.0 ml
Run #2		

Pesticide RCP List

CAS No.	Compound	Result	RL	Units	Q
15972-60-8	Alachlor	ND	100	ug/kg	
309-00-2	Aldrin	ND	10	ug/kg	
319-84-6	alpha-BHC	ND	10	ug/kg	
319-85-7	beta-BHC	ND	10	ug/kg	
319-86-8	delta-BHC	ND	10	ug/kg	
58-89-9	gamma-BHC (Lindane)	ND	10	ug/kg	
12789-03-6	Chlordane	ND	100	ug/kg	
60-57-1	Dieldrin	ND	10	ug/kg	
72-54-8	4,4'-DDD	ND	10	ug/kg	
72-55-9	4,4'-DDE	ND	10	ug/kg	
50-29-3	4,4'-DDT	ND	10	ug/kg	
72-20-8	Endrin	ND	10	ug/kg	
1031-07-8	Endosulfan sulfate	ND	10	ug/kg	
7421-93-4	Endrin aldehyde	ND	10	ug/kg	
959-98-8	Endosulfan-I	ND	10	ug/kg	
33213-65-9	Endosulfan-II	ND	10	ug/kg	
76-44-8	Heptachlor	ND	10	ug/kg	
1024-57-3	Heptachlor epoxide	ND	10	ug/kg	
72-43-5	Methoxychlor	ND	10	ug/kg	
53494-70-5	Endrin ketone	ND	10	ug/kg	
8001-35-2	Toxaphene	ND	100	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	74%		30-150%
877-09-8	Tetrachloro-m-xylene	70%		30-150%
2051-24-3	Decachlorobiphenyl	79%		30-150%
2051-24-3	Decachlorobiphenyl	68%		30-150%

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: SED-3		
Lab Sample ID: MC27709-3		Date Sampled: 01/16/14
Matrix: SO - Sediment		Date Received: 01/16/14
Method: SW846 8082 SW846 3546		Percent Solids: 62.9
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK34137.D	1	01/21/14	NK	01/17/14	OP36567	GBK1121
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	53	ug/kg	
11104-28-2	Aroclor 1221	ND	53	ug/kg	
11141-16-5	Aroclor 1232	ND	53	ug/kg	
53469-21-9	Aroclor 1242	ND	53	ug/kg	
12672-29-6	Aroclor 1248	ND	53	ug/kg	
11097-69-1	Aroclor 1254	ND	53	ug/kg	
11096-82-5	Aroclor 1260	ND	53	ug/kg	
37324-23-5	Aroclor 1262	ND	53	ug/kg	
11100-14-4	Aroclor 1268	ND	53	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	93%		30-150%
877-09-8	Tetrachloro-m-xylene	95%		30-150%
2051-24-3	Decachlorobiphenyl	106%		30-150%
2051-24-3	Decachlorobiphenyl	106%		30-150%

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: SED-3		Date Sampled: 01/16/14
Lab Sample ID: MC27709-3		Date Received: 01/16/14
Matrix: SO - Sediment		Percent Solids: 62.9
Method: CT-ETPH 7/06 SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC659747.D	1	01/23/14	KN	01/17/14	OP36574	GBC3573
Run #2							

Run #	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)	33.9	26	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	63%		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: SED-3		Date Sampled: 01/16/14
Lab Sample ID: MC27709-3		Date Received: 01/16/14
Matrix: SO - Sediment		Percent Solids: 62.9
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	1.7	1.1	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Barium	106	5.5	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Cadmium	< 0.44	0.44	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Chromium	17.0	1.1	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Lead	19.7	1.1	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Mercury	< 0.044	0.044	mg/kg	1	01/20/14	01/20/14 EAL	SW846 7471B ¹	SW846 7471B ³
Selenium	< 1.1	1.1	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Silver	< 0.55	0.55	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴

- (1) Instrument QC Batch: MA16666
- (2) Instrument QC Batch: MA16668
- (3) Prep QC Batch: MP22392
- (4) Prep QC Batch: MP22393

RL = Reporting Limit

4.5
4

Report of Analysis

Client Sample ID: SED-3		Date Sampled: 01/16/14
Lab Sample ID: MC27709-3A		Date Received: 01/16/14
Matrix: SO - Sediment		Percent Solids: 62.9
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, 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	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Barium	< 0.50	0.50		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Cadmium	< 0.0040	0.0040		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Chromium	< 0.010	0.010		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Lead	< 0.010	0.010		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Mercury	< 0.00020	0.00020		mg/l	1	01/21/14	01/22/14 SA	SW846 7470A ¹	SW846 7470A ⁴
Selenium	< 0.025	0.025		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Silver	< 0.0050	0.0050		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³

- (1) Instrument QC Batch: MA16673
- (2) Instrument QC Batch: MA16678
- (3) Prep QC Batch: MP22395
- (4) Prep QC Batch: MP22406

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

4.6
4

Report of Analysis

Client Sample ID:	SED-4	Date Sampled:	01/16/14
Lab Sample ID:	MC27709-4	Date Received:	01/16/14
Matrix:	SO - Sediment	Percent Solids:	73.3
Method:	SW846 8260C		
Project:	Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M62809.D	1	01/21/14	KD	n/a	n/a	MSM2200
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	6.06 g	5.0 ml
Run #2		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	11	ug/kg	
107-13-1	Acrylonitrile	ND	28	ug/kg	
71-43-2	Benzene	ND	0.56	ug/kg	
108-86-1	Bromobenzene	ND	5.6	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	11	ug/kg	
104-51-8	n-Butylbenzene	ND	5.6	ug/kg	
135-98-8	sec-Butylbenzene	ND	5.6	ug/kg	
98-06-6	tert-Butylbenzene	ND	5.6	ug/kg	
75-15-0	Carbon disulfide	ND	5.6	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	5.6	ug/kg	
67-66-3	Chloroform	ND	2.3	ug/kg	
74-87-3	Chloromethane	ND	5.6	ug/kg	
95-49-8	o-Chlorotoluene	ND	5.6	ug/kg	
106-43-4	p-Chlorotoluene	ND	5.6	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.6	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:	SED-4	Date Sampled:	01/16/14
Lab Sample ID:	MC27709-4	Date Received:	01/16/14
Matrix:	SO - Sediment	Percent Solids:	73.3
Method:	SW846 8260C		
Project:	Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.6	ug/kg	
594-20-7	2,2-Dichloropropane	ND	5.6	ug/kg	
563-58-6	1,1-Dichloropropene	ND	5.6	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	5.6	ug/kg	
87-68-3	Hexachlorobutadiene	ND	5.6	ug/kg	
591-78-6	2-Hexanone	ND	11	ug/kg	
98-82-8	Isopropylbenzene	ND	5.6	ug/kg	
99-87-6	p-Isopropyltoluene	ND	5.6	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.3	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.6	ug/kg	
74-95-3	Methylene bromide	ND	5.6	ug/kg	
75-09-2	Methylene chloride	ND	2.3	ug/kg	
91-20-3	Naphthalene	ND	5.6	ug/kg	
103-65-1	n-Propylbenzene	ND	5.6	ug/kg	
100-42-5	Styrene	ND	5.6	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.6	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	11	ug/kg	
108-88-3	Toluene	ND	5.6	ug/kg	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.6	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.6	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.6	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	5.6	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	5.6	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	5.6	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	86%		70-130%

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: SED-4		Date Sampled: 01/16/14
Lab Sample ID: MC27709-4		Date Received: 01/16/14
Matrix: SO - Sediment		Percent Solids: 73.3
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	89%		70-130%
460-00-4	4-Bromofluorobenzene	88%		70-130%

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:	SED-4	Date Sampled:	01/16/14
Lab Sample ID:	MC27709-4	Date Received:	01/16/14
Matrix:	SO - Sediment	Percent Solids:	73.3
Method:	SW846 8270D SW846 3546		
Project:	Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W17340.D	1	01/21/14	KR	01/17/14	OP36569	MSW763
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	340	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	680	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	680	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	680	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1400	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	680	ug/kg	
95-48-7	2-Methylphenol	ND	680	ug/kg	
106-44-5	4-Methylphenol	ND	680	ug/kg	
88-75-5	2-Nitrophenol	ND	680	ug/kg	
100-02-7	4-Nitrophenol	ND	1400	ug/kg	
87-86-5	Pentachlorophenol	ND	680	ug/kg	
108-95-2	Phenol	ND	340	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	680	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	680	ug/kg	
83-32-9	Acenaphthene	ND	140	ug/kg	
208-96-8	Acenaphthylene	ND	140	ug/kg	
62-53-3	Aniline	ND	680	ug/kg	
120-12-7	Anthracene	ND	140	ug/kg	
56-55-3	Benzo(a)anthracene	327	140	ug/kg	
50-32-8	Benzo(a)pyrene	317	140	ug/kg	
205-99-2	Benzo(b)fluoranthene	350	140	ug/kg	
191-24-2	Benzo(g,h,i)perylene	205	140	ug/kg	
207-08-9	Benzo(k)fluoranthene	202	140	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	340	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	340	ug/kg	
91-58-7	2-Chloronaphthalene	ND	340	ug/kg	
106-47-8	4-Chloroaniline	ND	680	ug/kg	
86-74-8	Carbazole	ND	140	ug/kg	
218-01-9	Chrysene	367	140	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	340	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	340	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	340	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:	SED-4	Date Sampled:	01/16/14
Lab Sample ID:	MC27709-4	Date Received:	01/16/14
Matrix:	SO - Sediment	Percent Solids:	73.3
Method:	SW846 8270D SW846 3546		
Project:	Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	340	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	680	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	680	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	340	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	140	ug/kg	
132-64-9	Dibenzofuran	ND	140	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	340	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	340	ug/kg	
84-66-2	Diethyl phthalate	ND	340	ug/kg	
131-11-3	Dimethyl phthalate	ND	340	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	340	ug/kg	
206-44-0	Fluoranthene	621	140	ug/kg	
86-73-7	Fluorene	ND	140	ug/kg	
118-74-1	Hexachlorobenzene	ND	340	ug/kg	
87-68-3	Hexachlorobutadiene	ND	340	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	680	ug/kg	
67-72-1	Hexachloroethane	ND	340	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	177	140	ug/kg	
78-59-1	Isophorone	ND	340	ug/kg	
91-57-6	2-Methylnaphthalene	ND	140	ug/kg	
88-74-4	2-Nitroaniline	ND	680	ug/kg	
99-09-2	3-Nitroaniline	ND	680	ug/kg	
100-01-6	4-Nitroaniline	ND	680	ug/kg	
91-20-3	Naphthalene	ND	140	ug/kg	
98-95-3	Nitrobenzene	ND	340	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	340	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	340	ug/kg	
82-68-8	Pentachloronitrobenzene	ND	680	ug/kg	
85-01-8	Phenanthrene	338	140	ug/kg	
129-00-0	Pyrene	650	140	ug/kg	
110-86-1	Pyridine	ND	680	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	680	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	340	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	76%		30-130%
4165-62-2	Phenol-d5	75%		30-130%
118-79-6	2,4,6-Tribromophenol	81%		30-130%
4165-60-0	Nitrobenzene-d5	83%		30-130%

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: SED-4		Date Sampled: 01/16/14
Lab Sample ID: MC27709-4		Date Received: 01/16/14
Matrix: SO - Sediment		Percent Solids: 73.3
Method: SW846 8270D SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

ABN RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	83%		30-130%
1718-51-0	Terphenyl-d14	94%		30-130%

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: SED-4		
Lab Sample ID: MC27709-4		Date Sampled: 01/16/14
Matrix: SO - Sediment		Date Received: 01/16/14
Method: SW846 8151 SW846 3550B		Percent Solids: 73.3
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB53979.D	1	01/21/14	CZ	01/17/14	OP36565	GBB3153
Run #2							

Run #	Initial Weight	Final Volume
Run #1	30.8 g	5.0 ml
Run #2		

CT Chlorinated Herbicides RCP List

CAS No.	Compound	Result	RL	Units	Q
94-75-7	2,4-D	ND	27	ug/kg	
93-72-1	2,4,5-TP (Silvex)	ND	27	ug/kg	
93-76-5	2,4,5-T	ND	27	ug/kg	
75-99-0	Dalapon	ND	27	ug/kg	
1918-00-9	Dicamba	ND	27	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	97%		30-150%
19719-28-9	2,4-DCAA	109%		30-150%

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: SED-4		
Lab Sample ID: MC27709-4		Date Sampled: 01/16/14
Matrix: SO - Sediment		Date Received: 01/16/14
Method: SW846 8081 SW846 3546		Percent Solids: 73.3
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ87760.D	1	01/24/14	CZ	01/17/14	OP36566	GYZ7478
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	15.9 g	10.0 ml
Run #2		

Pesticide RCP List

CAS No.	Compound	Result	RL	Units	Q
15972-60-8	Alachlor	ND	86	ug/kg	
309-00-2	Aldrin	ND	8.6	ug/kg	
319-84-6	alpha-BHC	ND	8.6	ug/kg	
319-85-7	beta-BHC	ND	8.6	ug/kg	
319-86-8	delta-BHC	ND	8.6	ug/kg	
58-89-9	gamma-BHC (Lindane)	ND	8.6	ug/kg	
12789-03-6	Chlordane	ND	86	ug/kg	
60-57-1	Dieldrin	ND	8.6	ug/kg	
72-54-8	4,4'-DDD	ND	8.6	ug/kg	
72-55-9	4,4'-DDE	ND	8.6	ug/kg	
50-29-3	4,4'-DDT	ND	8.6	ug/kg	
72-20-8	Endrin	ND	8.6	ug/kg	
1031-07-8	Endosulfan sulfate	ND	8.6	ug/kg	
7421-93-4	Endrin aldehyde	ND	8.6	ug/kg	
959-98-8	Endosulfan-I	ND	8.6	ug/kg	
33213-65-9	Endosulfan-II	ND	8.6	ug/kg	
76-44-8	Heptachlor	ND	8.6	ug/kg	
1024-57-3	Heptachlor epoxide	ND	8.6	ug/kg	
72-43-5	Methoxychlor	ND	8.6	ug/kg	
53494-70-5	Endrin ketone	ND	8.6	ug/kg	
8001-35-2	Toxaphene	ND	86	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	91%		30-150%
877-09-8	Tetrachloro-m-xylene	96%		30-150%
2051-24-3	Decachlorobiphenyl	98%		30-150%
2051-24-3	Decachlorobiphenyl	87%		30-150%

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: SED-4		Date Sampled: 01/16/14
Lab Sample ID: MC27709-4		Date Received: 01/16/14
Matrix: SO - Sediment		Percent Solids: 73.3
Method: SW846 8082 SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK34138.D	1	01/21/14	NK	01/17/14	OP36567	GBK1121
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	15.1 g	10.0 ml
Run #2		

CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	45	ug/kg	
11104-28-2	Aroclor 1221	ND	45	ug/kg	
11141-16-5	Aroclor 1232	ND	45	ug/kg	
53469-21-9	Aroclor 1242	ND	45	ug/kg	
12672-29-6	Aroclor 1248	ND	45	ug/kg	
11097-69-1	Aroclor 1254	ND	45	ug/kg	
11096-82-5	Aroclor 1260	ND	45	ug/kg	
37324-23-5	Aroclor 1262	ND	45	ug/kg	
11100-14-4	Aroclor 1268	ND	45	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	101%		30-150%
877-09-8	Tetrachloro-m-xylene	93%		30-150%
2051-24-3	Decachlorobiphenyl	100%		30-150%
2051-24-3	Decachlorobiphenyl	99%		30-150%

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: SED-4		Date Sampled: 01/16/14
Lab Sample ID: MC27709-4		Date Received: 01/16/14
Matrix: SO - Sediment		Percent Solids: 73.3
Method: CT-ETPH 7/06 SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC659749.D	1	01/23/14	KN	01/17/14	OP36574	GBC3573
Run #2							

Run #	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)	35.0	21	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	67%		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: SED-4		Date Sampled: 01/16/14
Lab Sample ID: MC27709-4		Date Received: 01/16/14
Matrix: SO - Sediment		Percent Solids: 73.3
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	1.1	0.98	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Barium	43.0	4.9	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Cadmium	< 0.39	0.39	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Chromium	10.5	0.98	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Lead	6.6	0.98	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Mercury	< 0.037	0.037	mg/kg	1	01/20/14	01/20/14 EAL	SW846 7471B ¹	SW846 7471B ³
Selenium	< 0.98	0.98	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Silver	< 0.49	0.49	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴

- (1) Instrument QC Batch: MA16666
- (2) Instrument QC Batch: MA16668
- (3) Prep QC Batch: MP22392
- (4) Prep QC Batch: MP22393

RL = Reporting Limit

4.7
4

Report of Analysis

Client Sample ID: SED-4		Date Sampled: 01/16/14
Lab Sample ID: MC27709-4A		Date Received: 01/16/14
Matrix: SO - Sediment		Percent Solids: 73.3
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, 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	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Barium	< 0.50	0.50		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Cadmium	< 0.0040	0.0040		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Chromium	< 0.010	0.010		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Lead	< 0.010	0.010		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Mercury	< 0.00020	0.00020		mg/l	1	01/21/14	01/22/14 SA	SW846 7470A ¹	SW846 7470A ⁴
Selenium	< 0.025	0.025		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Silver	< 0.0050	0.0050		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³

- (1) Instrument QC Batch: MA16673
- (2) Instrument QC Batch: MA16678
- (3) Prep QC Batch: MP22395
- (4) Prep QC Batch: MP22406

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

4.8
4

Report of Analysis

Client Sample ID: GP-4 1-3'		Date Sampled: 01/16/14
Lab Sample ID: MC27709-5		Date Received: 01/16/14
Matrix: SO - Soil		Percent Solids: 90.8
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M62810.D	1	01/21/14	KD	n/a	n/a	MSM2200
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	ND	11	ug/kg	
107-13-1	Acrylonitrile	ND	28	ug/kg	
71-43-2	Benzene	ND	0.57	ug/kg	
108-86-1	Bromobenzene	ND	5.7	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	11	ug/kg	
104-51-8	n-Butylbenzene	ND	5.7	ug/kg	
135-98-8	sec-Butylbenzene	ND	5.7	ug/kg	
98-06-6	tert-Butylbenzene	ND	5.7	ug/kg	
75-15-0	Carbon disulfide	ND	5.7	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	5.7	ug/kg	
67-66-3	Chloroform	ND	2.3	ug/kg	
74-87-3	Chloromethane	ND	5.7	ug/kg	
95-49-8	o-Chlorotoluene	ND	5.7	ug/kg	
106-43-4	p-Chlorotoluene	ND	5.7	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.7	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-4 1-3'		Date Sampled: 01/16/14
Lab Sample ID: MC27709-5		Date Received: 01/16/14
Matrix: SO - Soil		Percent Solids: 90.8
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.7	ug/kg	
594-20-7	2,2-Dichloropropane	ND	5.7	ug/kg	
563-58-6	1,1-Dichloropropene	ND	5.7	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	5.7	ug/kg	
87-68-3	Hexachlorobutadiene	ND	5.7	ug/kg	
591-78-6	2-Hexanone	ND	11	ug/kg	
98-82-8	Isopropylbenzene	ND	5.7	ug/kg	
99-87-6	p-Isopropyltoluene	ND	5.7	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.3	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.7	ug/kg	
74-95-3	Methylene bromide	ND	5.7	ug/kg	
75-09-2	Methylene chloride	ND	2.3	ug/kg	
91-20-3	Naphthalene	ND	5.7	ug/kg	
103-65-1	n-Propylbenzene	ND	5.7	ug/kg	
100-42-5	Styrene	ND	5.7	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.7	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	11	ug/kg	
108-88-3	Toluene	ND	5.7	ug/kg	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.7	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.7	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.7	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	5.7	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	5.7	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	5.7	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	92%		70-130%

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 1-3'		Date Sampled: 01/16/14
Lab Sample ID: MC27709-5		Date Received: 01/16/14
Matrix: SO - Soil		Percent Solids: 90.8
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	88%		70-130%
460-00-4	4-Bromofluorobenzene	85%		70-130%

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-4 1-3'		
Lab Sample ID: MC27709-5		Date Sampled: 01/16/14
Matrix: SO - Soil		Date Received: 01/16/14
Method: SW846 8270D SW846 3546		Percent Solids: 90.8
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W17341.D	5	01/21/14	KR	01/17/14	OP36569	MSW763
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	1400	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2700	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2700	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2700	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5400	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2700	ug/kg	
95-48-7	2-Methylphenol	ND	2700	ug/kg	
106-44-5	4-Methylphenol	ND	2700	ug/kg	
88-75-5	2-Nitrophenol	ND	2700	ug/kg	
100-02-7	4-Nitrophenol	ND	5400	ug/kg	
87-86-5	Pentachlorophenol	ND	2700	ug/kg	
108-95-2	Phenol	ND	1400	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2700	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2700	ug/kg	
83-32-9	Acenaphthene	ND	540	ug/kg	
208-96-8	Acenaphthylene	1680	540	ug/kg	
62-53-3	Aniline	ND	2700	ug/kg	
120-12-7	Anthracene	706	540	ug/kg	
56-55-3	Benzo(a)anthracene	3210	540	ug/kg	
50-32-8	Benzo(a)pyrene	3850	540	ug/kg	
205-99-2	Benzo(b)fluoranthene	4260	540	ug/kg	
191-24-2	Benzo(g,h,i)perylene	3000	540	ug/kg	
207-08-9	Benzo(k)fluoranthene	2800	540	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	ug/kg	
106-47-8	4-Chloroaniline	ND	2700	ug/kg	
86-74-8	Carbazole	ND	540	ug/kg	
218-01-9	Chrysene	4400	540	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	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 1-3'		Date Sampled: 01/16/14
Lab Sample ID: MC27709-5		Date Received: 01/16/14
Matrix: SO - Soil		Percent Solids: 90.8
Method: SW846 8270D SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	1400	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2700	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2700	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	779	540	ug/kg	
132-64-9	Dibenzofuran	ND	540	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	ug/kg	
206-44-0	Fluoranthene	6100	540	ug/kg	
86-73-7	Fluorene	ND	540	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2700	ug/kg	
67-72-1	Hexachloroethane	ND	1400	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	2450	540	ug/kg	
78-59-1	Isophorone	ND	1400	ug/kg	
91-57-6	2-Methylnaphthalene	ND	540	ug/kg	
88-74-4	2-Nitroaniline	ND	2700	ug/kg	
99-09-2	3-Nitroaniline	ND	2700	ug/kg	
100-01-6	4-Nitroaniline	ND	2700	ug/kg	
91-20-3	Naphthalene	ND	540	ug/kg	
98-95-3	Nitrobenzene	ND	1400	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	ug/kg	
82-68-8	Pentachloronitrobenzene	ND	2700	ug/kg	
85-01-8	Phenanthrene	2700	540	ug/kg	
129-00-0	Pyrene	6970	540	ug/kg	
110-86-1	Pyridine	ND	2700	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2700	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1400	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	50%		30-130%
4165-62-2	Phenol-d5	50%		30-130%
118-79-6	2,4,6-Tribromophenol	61%		30-130%
4165-60-0	Nitrobenzene-d5	58%		30-130%

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 1-3'		Date Sampled: 01/16/14
Lab Sample ID: MC27709-5		Date Received: 01/16/14
Matrix: SO - Soil		Percent Solids: 90.8
Method: SW846 8270D SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

ABN RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	64%		30-130%
1718-51-0	Terphenyl-d14	70%		30-130%

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-4 1-3'		Date Sampled: 01/16/14
Lab Sample ID: MC27709-5		Date Received: 01/16/14
Matrix: SO - Soil		Percent Solids: 90.8
Method: CT-ETPH 7/06 SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC659765.D	5	01/23/14	KN	01/17/14	OP36574	GBC3573
Run #2							

Run #	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)	290	90	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	67%		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-4 1-3'		Date Sampled: 01/16/14
Lab Sample ID: MC27709-5		Date Received: 01/16/14
Matrix: SO - Soil		Percent Solids: 90.8
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	1.6	0.90	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Barium	43.9	4.5	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Cadmium	< 0.36	0.36	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Chromium	14.2	0.90	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Lead	85.9	0.90	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Mercury	0.034	0.034	mg/kg	1	01/20/14	01/20/14 EAL	SW846 7471B ¹	SW846 7471B ³
Selenium	< 0.90	0.90	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Silver	< 0.45	0.45	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴

- (1) Instrument QC Batch: MA16666
- (2) Instrument QC Batch: MA16668
- (3) Prep QC Batch: MP22392
- (4) Prep QC Batch: MP22393

RL = Reporting Limit

4.9
4

Report of Analysis

Client Sample ID: GP-4 1-3'		Date Sampled: 01/16/14
Lab Sample ID: MC27709-5A		Date Received: 01/16/14
Matrix: SO - Soil		Percent Solids: 90.8
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, 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	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Barium	< 0.50	0.50		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Cadmium	< 0.0040	0.0040		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Chromium	< 0.010	0.010		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Lead	0.053	0.010		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Mercury	< 0.00020	0.00020		mg/l	1	01/21/14	01/22/14 SA	SW846 7470A ¹	SW846 7470A ⁴
Selenium	< 0.025	0.025		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Silver	< 0.0050	0.0050		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³

- (1) Instrument QC Batch: MA16673
- (2) Instrument QC Batch: MA16678
- (3) Prep QC Batch: MP22395
- (4) Prep QC Batch: MP22406

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

Report of Analysis

Client Sample ID: GP-5 1-3'		Date Sampled: 01/16/14
Lab Sample ID: MC27709-6		Date Received: 01/16/14
Matrix: SO - Soil		Percent Solids: 89.1
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M62811.D	1	01/21/14	KD	n/a	n/a	MSM2200
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	4.95 g	5.0 ml
Run #2		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	11	ug/kg	
107-13-1	Acrylonitrile	ND	28	ug/kg	
71-43-2	Benzene	ND	0.57	ug/kg	
108-86-1	Bromobenzene	ND	5.7	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	11	ug/kg	
104-51-8	n-Butylbenzene	ND	5.7	ug/kg	
135-98-8	sec-Butylbenzene	ND	5.7	ug/kg	
98-06-6	tert-Butylbenzene	ND	5.7	ug/kg	
75-15-0	Carbon disulfide	ND	5.7	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	5.7	ug/kg	
67-66-3	Chloroform	ND	2.3	ug/kg	
74-87-3	Chloromethane	ND	5.7	ug/kg	
95-49-8	o-Chlorotoluene	ND	5.7	ug/kg	
106-43-4	p-Chlorotoluene	ND	5.7	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.7	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

4.11
4

Report of Analysis

Client Sample ID: GP-5 1-3'		Date Sampled: 01/16/14
Lab Sample ID: MC27709-6		Date Received: 01/16/14
Matrix: SO - Soil		Percent Solids: 89.1
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.7	ug/kg	
594-20-7	2,2-Dichloropropane	ND	5.7	ug/kg	
563-58-6	1,1-Dichloropropene	ND	5.7	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	5.7	ug/kg	
87-68-3	Hexachlorobutadiene	ND	5.7	ug/kg	
591-78-6	2-Hexanone	ND	11	ug/kg	
98-82-8	Isopropylbenzene	ND	5.7	ug/kg	
99-87-6	p-Isopropyltoluene	ND	5.7	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.3	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.7	ug/kg	
74-95-3	Methylene bromide	ND	5.7	ug/kg	
75-09-2	Methylene chloride	ND	2.3	ug/kg	
91-20-3	Naphthalene	ND	5.7	ug/kg	
103-65-1	n-Propylbenzene	ND	5.7	ug/kg	
100-42-5	Styrene	ND	5.7	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.7	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	11	ug/kg	
108-88-3	Toluene	ND	5.7	ug/kg	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.7	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.7	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.7	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	5.7	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	5.7	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	5.7	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	90%		70-130%

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-5 1-3'		Date Sampled: 01/16/14
Lab Sample ID: MC27709-6		Date Received: 01/16/14
Matrix: SO - Soil		Percent Solids: 89.1
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	90%		70-130%
460-00-4	4-Bromofluorobenzene	85%		70-130%

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-5 1-3'		Date Sampled: 01/16/14
Lab Sample ID: MC27709-6		Date Received: 01/16/14
Matrix: SO - Soil		Percent Solids: 89.1
Method: SW846 8270D SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W17342.D	5	01/21/14	KR	01/17/14	OP36569	MSW763
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	1400	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2700	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2700	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2700	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5500	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2700	ug/kg	
95-48-7	2-Methylphenol	ND	2700	ug/kg	
106-44-5	4-Methylphenol	ND	2700	ug/kg	
88-75-5	2-Nitrophenol	ND	2700	ug/kg	
100-02-7	4-Nitrophenol	ND	5500	ug/kg	
87-86-5	Pentachlorophenol	ND	2700	ug/kg	
108-95-2	Phenol	ND	1400	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2700	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2700	ug/kg	
83-32-9	Acenaphthene	ND	550	ug/kg	
208-96-8	Acenaphthylene	1290	550	ug/kg	
62-53-3	Aniline	ND	2700	ug/kg	
120-12-7	Anthracene	716	550	ug/kg	
56-55-3	Benzo(a)anthracene	3440	550	ug/kg	
50-32-8	Benzo(a)pyrene	3630	550	ug/kg	
205-99-2	Benzo(b)fluoranthene	2970	550	ug/kg	
191-24-2	Benzo(g,h,i)perylene	2430	550	ug/kg	
207-08-9	Benzo(k)fluoranthene	3310	550	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	ug/kg	
106-47-8	4-Chloroaniline	ND	2700	ug/kg	
86-74-8	Carbazole	ND	550	ug/kg	
218-01-9	Chrysene	4150	550	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	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 1-3'	Date Sampled:	01/16/14
Lab Sample ID:	MC27709-6	Date Received:	01/16/14
Matrix:	SO - Soil	Percent Solids:	89.1
Method:	SW846 8270D SW846 3546		
Project:	Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	1400	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2700	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2700	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	662	550	ug/kg	
132-64-9	Dibenzofuran	ND	550	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	ug/kg	
206-44-0	Fluoranthene	6160	550	ug/kg	
86-73-7	Fluorene	ND	550	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2700	ug/kg	
67-72-1	Hexachloroethane	ND	1400	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	2130	550	ug/kg	
78-59-1	Isophorone	ND	1400	ug/kg	
91-57-6	2-Methylnaphthalene	ND	550	ug/kg	
88-74-4	2-Nitroaniline	ND	2700	ug/kg	
99-09-2	3-Nitroaniline	ND	2700	ug/kg	
100-01-6	4-Nitroaniline	ND	2700	ug/kg	
91-20-3	Naphthalene	ND	550	ug/kg	
98-95-3	Nitrobenzene	ND	1400	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	ug/kg	
82-68-8	Pentachloronitrobenzene	ND	2700	ug/kg	
85-01-8	Phenanthrene	3210	550	ug/kg	
129-00-0	Pyrene	6980	550	ug/kg	
110-86-1	Pyridine	ND	2700	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2700	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1400	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	55%		30-130%
4165-62-2	Phenol-d5	57%		30-130%
118-79-6	2,4,6-Tribromophenol	71%		30-130%
4165-60-0	Nitrobenzene-d5	60%		30-130%

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 1-3'		Date Sampled: 01/16/14
Lab Sample ID: MC27709-6		Date Received: 01/16/14
Matrix: SO - Soil		Percent Solids: 89.1
Method: SW846 8270D SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

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ABN RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	75%		30-130%
1718-51-0	Terphenyl-d14	88%		30-130%

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 1-3'		Date Sampled: 01/16/14
Lab Sample ID: MC27709-6		Date Received: 01/16/14
Matrix: SO - Soil		Percent Solids: 89.1
Method: CT-ETPH 7/06 SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC659767.D	5	01/23/14	KN	01/17/14	OP36574	GBC3573
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)	318	93	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	67%		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-5 1-3'		Date Sampled: 01/16/14
Lab Sample ID: MC27709-6		Date Received: 01/16/14
Matrix: SO - Soil		Percent Solids: 89.1
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	1.6	0.89	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Barium	38.6	4.5	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Cadmium	< 0.36	0.36	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Chromium	23.0	0.89	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Lead	89.1	0.89	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Mercury	< 0.036	0.036	mg/kg	1	01/20/14	01/20/14 EAL	SW846 7471B ¹	SW846 7471B ³
Selenium	< 0.89	0.89	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Silver	< 0.45	0.45	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴

- (1) Instrument QC Batch: MA16666
- (2) Instrument QC Batch: MA16668
- (3) Prep QC Batch: MP22392
- (4) Prep QC Batch: MP22393

RL = Reporting Limit

4.11
4

Report of Analysis

Client Sample ID: GP-5 1-3' Lab Sample ID: MC27709-6A Matrix: SO - Soil Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT	Date Sampled: 01/16/14 Date Received: 01/16/14 Percent Solids: 89.1
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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	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Barium	< 0.50	0.50		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Cadmium	< 0.0040	0.0040		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Chromium	< 0.010	0.010		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Lead	0.050	0.010		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Mercury	< 0.00020	0.00020		mg/l	1	01/21/14	01/22/14 SA	SW846 7470A ¹	SW846 7470A ⁴
Selenium	< 0.025	0.025		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Silver	< 0.0050	0.0050		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³

- (1) Instrument QC Batch: MA16673
- (2) Instrument QC Batch: MA16678
- (3) Prep QC Batch: MP22395
- (4) Prep QC Batch: MP22406

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

4.12
4

Report of Analysis

Client Sample ID: GP-13 1-3'		Date Sampled: 01/16/14
Lab Sample ID: MC27709-7		Date Received: 01/16/14
Matrix: SO - Soil		Percent Solids: 89.1
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M62812.D	1	01/21/14	KD	n/a	n/a	MSM2200
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	4.94 g	5.0 ml
Run #2		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	11	ug/kg	
107-13-1	Acrylonitrile	ND	28	ug/kg	
71-43-2	Benzene	ND	0.57	ug/kg	
108-86-1	Bromobenzene	ND	5.7	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	11	ug/kg	
104-51-8	n-Butylbenzene	ND	5.7	ug/kg	
135-98-8	sec-Butylbenzene	ND	5.7	ug/kg	
98-06-6	tert-Butylbenzene	ND	5.7	ug/kg	
75-15-0	Carbon disulfide	ND	5.7	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	5.7	ug/kg	
67-66-3	Chloroform	ND	2.3	ug/kg	
74-87-3	Chloromethane	ND	5.7	ug/kg	
95-49-8	o-Chlorotoluene	ND	5.7	ug/kg	
106-43-4	p-Chlorotoluene	ND	5.7	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.7	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-13 1-3'		Date Sampled: 01/16/14
Lab Sample ID: MC27709-7		Date Received: 01/16/14
Matrix: SO - Soil		Percent Solids: 89.1
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.7	ug/kg	
594-20-7	2,2-Dichloropropane	ND	5.7	ug/kg	
563-58-6	1,1-Dichloropropene	ND	5.7	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	5.7	ug/kg	
87-68-3	Hexachlorobutadiene	ND	5.7	ug/kg	
591-78-6	2-Hexanone	ND	11	ug/kg	
98-82-8	Isopropylbenzene	ND	5.7	ug/kg	
99-87-6	p-Isopropyltoluene	ND	5.7	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.3	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.7	ug/kg	
74-95-3	Methylene bromide	ND	5.7	ug/kg	
75-09-2	Methylene chloride	ND	2.3	ug/kg	
91-20-3	Naphthalene	ND	5.7	ug/kg	
103-65-1	n-Propylbenzene	ND	5.7	ug/kg	
100-42-5	Styrene	ND	5.7	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.7	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	11	ug/kg	
108-88-3	Toluene	ND	5.7	ug/kg	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.7	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.7	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.7	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	5.7	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	5.7	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	5.7	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	91%		70-130%

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-13 1-3'		Date Sampled: 01/16/14
Lab Sample ID: MC27709-7		Date Received: 01/16/14
Matrix: SO - Soil		Percent Solids: 89.1
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

4.13
4

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	89%		70-130%
460-00-4	4-Bromofluorobenzene	85%		70-130%

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 1-3'		Date Sampled: 01/16/14
Lab Sample ID: MC27709-7		Date Received: 01/16/14
Matrix: SO - Soil		Percent Solids: 89.1
Method: SW846 8270D SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W17343.D	1	01/21/14	KR	01/17/14	OP36569	MSW763
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	1100	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	1100	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	165	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	414	110	ug/kg	
50-32-8	Benzo(a)pyrene	453	110	ug/kg	
205-99-2	Benzo(b)fluoranthene	519	110	ug/kg	
191-24-2	Benzo(g,h,i)perylene	306	110	ug/kg	
207-08-9	Benzo(k)fluoranthene	302	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	503	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-13 1-3'	Date Sampled:	01/16/14
Lab Sample ID:	MC27709-7	Date Received:	01/16/14
Matrix:	SO - Soil	Percent Solids:	89.1
Method:	SW846 8270D SW846 3546		
Project:	Bridge No. 1127-Rte 80 Over Farm River North Branford, 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	270	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	839	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	550	ug/kg	
67-72-1	Hexachloroethane	ND	270	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	280	110	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	405	110	ug/kg	
129-00-0	Pyrene	893	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	81%		30-130%
4165-62-2	Phenol-d5	79%		30-130%
118-79-6	2,4,6-Tribromophenol	91%		30-130%
4165-60-0	Nitrobenzene-d5	86%		30-130%

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 1-3'		Date Sampled: 01/16/14
Lab Sample ID: MC27709-7		Date Received: 01/16/14
Matrix: SO - Soil		Percent Solids: 89.1
Method: SW846 8270D SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

ABN RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	88%		30-130%
1718-51-0	Terphenyl-d14	104%		30-130%

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 1-3'		Date Sampled: 01/16/14
Lab Sample ID: MC27709-7		Date Received: 01/16/14
Matrix: SO - Soil		Percent Solids: 89.1
Method: CT-ETPH 7/06 SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC659745.D	1	01/23/14	KN	01/17/14	OP36574	GBC3573
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)	22.4	19	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	64%		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-13 1-3'		Date Sampled: 01/16/14
Lab Sample ID: MC27709-7		Date Received: 01/16/14
Matrix: SO - Soil		Percent Solids: 89.1
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	1.7	0.92	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Barium	47.4	4.6	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Cadmium	< 0.37	0.37	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Chromium	16.6	0.92	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Lead	16.9	0.92	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Mercury	< 0.036	0.036	mg/kg	1	01/20/14	01/20/14 EAL	SW846 7471B ¹	SW846 7471B ³
Selenium	< 0.92	0.92	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Silver	< 0.46	0.46	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴

- (1) Instrument QC Batch: MA16666
- (2) Instrument QC Batch: MA16668
- (3) Prep QC Batch: MP22392
- (4) Prep QC Batch: MP22393

RL = Reporting Limit

Report of Analysis

Client Sample ID: GP-13 1-3'	Date Sampled: 01/16/14
Lab Sample ID: MC27709-7A	Date Received: 01/16/14
Matrix: SO - Soil	Percent Solids: 89.1
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, 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	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Barium	< 0.50	0.50		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Cadmium	< 0.0040	0.0040		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Chromium	< 0.010	0.010		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Lead	< 0.010	0.010		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Mercury	< 0.00020	0.00020		mg/l	1	01/21/14	01/22/14 SA	SW846 7470A ¹	SW846 7470A ⁴
Selenium	< 0.025	0.025		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Silver	< 0.0050	0.0050		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³

- (1) Instrument QC Batch: MA16673
(2) Instrument QC Batch: MA16678
(3) Prep QC Batch: MP22395
(4) Prep QC Batch: MP22406

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

Report of Analysis

Client Sample ID: GP-14 2-4'		
Lab Sample ID: MC27709-8		Date Sampled: 01/16/14
Matrix: SO - Soil		Date Received: 01/16/14
Method: SW846 8260C		Percent Solids: 89.4
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M62813.D	1	01/21/14	KD	n/a	n/a	MSM2200
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	5.10 g	5.0 ml
Run #2		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	51.1	11	ug/kg	
107-13-1	Acrylonitrile	ND	27	ug/kg	
71-43-2	Benzene	ND	0.55	ug/kg	
108-86-1	Bromobenzene	ND	5.5	ug/kg	
75-27-4	Bromodichloromethane	ND	2.2	ug/kg	
75-25-2	Bromoform	ND	2.2	ug/kg	
74-83-9	Bromomethane	ND	2.2	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	ug/kg	
104-51-8	n-Butylbenzene	ND	5.5	ug/kg	
135-98-8	sec-Butylbenzene	ND	5.5	ug/kg	
98-06-6	tert-Butylbenzene	ND	5.5	ug/kg	
75-15-0	Carbon disulfide	ND	5.5	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.2	ug/kg	
108-90-7	Chlorobenzene	ND	2.2	ug/kg	
75-00-3	Chloroethane	ND	5.5	ug/kg	
67-66-3	Chloroform	ND	2.2	ug/kg	
74-87-3	Chloromethane	ND	5.5	ug/kg	
95-49-8	o-Chlorotoluene	ND	5.5	ug/kg	
106-43-4	p-Chlorotoluene	ND	5.5	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.5	ug/kg	
124-48-1	Dibromochloromethane	ND	2.2	ug/kg	
106-93-4	1,2-Dibromoethane	ND	2.2	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	2.2	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	2.2	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	2.2	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	2.2	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.2	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.2	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.2	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.2	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.2	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.2	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 2-4'		Date Sampled: 01/16/14
Lab Sample ID: MC27709-8		Date Received: 01/16/14
Matrix: SO - Soil		Percent Solids: 89.4
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.5	ug/kg	
594-20-7	2,2-Dichloropropane	ND	5.5	ug/kg	
563-58-6	1,1-Dichloropropene	ND	5.5	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.2	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.2	ug/kg	
100-41-4	Ethylbenzene	ND	2.2	ug/kg	
76-13-1	Freon 113	ND	5.5	ug/kg	
87-68-3	Hexachlorobutadiene	ND	5.5	ug/kg	
591-78-6	2-Hexanone	ND	11	ug/kg	
98-82-8	Isopropylbenzene	ND	5.5	ug/kg	
99-87-6	p-Isopropyltoluene	ND	5.5	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.2	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.5	ug/kg	
74-95-3	Methylene bromide	ND	5.5	ug/kg	
75-09-2	Methylene chloride	ND	2.2	ug/kg	
91-20-3	Naphthalene	ND	5.5	ug/kg	
103-65-1	n-Propylbenzene	ND	5.5	ug/kg	
100-42-5	Styrene	ND	5.5	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.5	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.2	ug/kg	
127-18-4	Tetrachloroethene	ND	2.2	ug/kg	
109-99-9	Tetrahydrofuran	ND	11	ug/kg	
108-88-3	Toluene	ND	5.5	ug/kg	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.5	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.5	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.5	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.2	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.2	ug/kg	
79-01-6	Trichloroethene	ND	2.2	ug/kg	
75-69-4	Trichlorofluoromethane	ND	2.2	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	5.5	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	5.5	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	5.5	ug/kg	
75-01-4	Vinyl chloride	ND	2.2	ug/kg	
	m,p-Xylene	ND	2.2	ug/kg	
95-47-6	o-Xylene	ND	2.2	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	86%		70-130%

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 2-4'		Date Sampled: 01/16/14
Lab Sample ID: MC27709-8		Date Received: 01/16/14
Matrix: SO - Soil		Percent Solids: 89.4
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

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VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	88%		70-130%
460-00-4	4-Bromofluorobenzene	87%		70-130%

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 2-4'		Date Sampled: 01/16/14
Lab Sample ID: MC27709-8		Date Received: 01/16/14
Matrix: SO - Soil		Percent Solids: 89.4
Method: SW846 8270D SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W17344.D	5	01/21/14	KR	01/17/14	OP36569	MSW763
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	1400	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2800	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2800	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2800	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5500	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2800	ug/kg	
95-48-7	2-Methylphenol	ND	2800	ug/kg	
106-44-5	4-Methylphenol	ND	2800	ug/kg	
88-75-5	2-Nitrophenol	ND	2800	ug/kg	
100-02-7	4-Nitrophenol	ND	5500	ug/kg	
87-86-5	Pentachlorophenol	ND	2800	ug/kg	
108-95-2	Phenol	ND	1400	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2800	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2800	ug/kg	
83-32-9	Acenaphthene	ND	550	ug/kg	
208-96-8	Acenaphthylene	ND	550	ug/kg	
62-53-3	Aniline	ND	2800	ug/kg	
120-12-7	Anthracene	ND	550	ug/kg	
56-55-3	Benzo(a)anthracene	883	550	ug/kg	
50-32-8	Benzo(a)pyrene	1050	550	ug/kg	
205-99-2	Benzo(b)fluoranthene	1030	550	ug/kg	
191-24-2	Benzo(g,h,i)perylene	811	550	ug/kg	
207-08-9	Benzo(k)fluoranthene	912	550	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	ug/kg	
106-47-8	4-Chloroaniline	ND	2800	ug/kg	
86-74-8	Carbazole	ND	550	ug/kg	
218-01-9	Chrysene	1100	550	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	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 2-4'	Date Sampled:	01/16/14
Lab Sample ID:	MC27709-8	Date Received:	01/16/14
Matrix:	SO - Soil	Percent Solids:	89.4
Method:	SW846 8270D SW846 3546		
Project:	Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	1400	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2800	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2800	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	550	ug/kg	
132-64-9	Dibenzofuran	ND	550	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	ug/kg	
206-44-0	Fluoranthene	1690	550	ug/kg	
86-73-7	Fluorene	ND	550	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2800	ug/kg	
67-72-1	Hexachloroethane	ND	1400	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	675	550	ug/kg	
78-59-1	Isophorone	ND	1400	ug/kg	
91-57-6	2-Methylnaphthalene	ND	550	ug/kg	
88-74-4	2-Nitroaniline	ND	2800	ug/kg	
99-09-2	3-Nitroaniline	ND	2800	ug/kg	
100-01-6	4-Nitroaniline	ND	2800	ug/kg	
91-20-3	Naphthalene	ND	550	ug/kg	
98-95-3	Nitrobenzene	ND	1400	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	ug/kg	
82-68-8	Pentachloronitrobenzene	ND	2800	ug/kg	
85-01-8	Phenanthrene	738	550	ug/kg	
129-00-0	Pyrene	1670	550	ug/kg	
110-86-1	Pyridine	ND	2800	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2800	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1400	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	53%		30-130%
4165-62-2	Phenol-d5	50%		30-130%
118-79-6	2,4,6-Tribromophenol	64%		30-130%
4165-60-0	Nitrobenzene-d5	60%		30-130%

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 2-4'		Date Sampled: 01/16/14
Lab Sample ID: MC27709-8		Date Received: 01/16/14
Matrix: SO - Soil		Percent Solids: 89.4
Method: SW846 8270D SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

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ABN RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	72%		30-130%
1718-51-0	Terphenyl-d14	82%		30-130%

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 2-4'		Date Sampled: 01/16/14
Lab Sample ID: MC27709-8		Date Received: 01/16/14
Matrix: SO - Soil		Percent Solids: 89.4
Method: CT-ETPH 7/06 SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC659753.D	1	01/23/14	KN	01/17/14	OP36574	GBC3573
Run #2							

Run #	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)	57.3	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

Report of Analysis

Client Sample ID: GP-14 2-4'		Date Sampled: 01/16/14
Lab Sample ID: MC27709-8		Date Received: 01/16/14
Matrix: SO - Soil		Percent Solids: 89.4
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	2.1	0.91	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Barium	44.2	4.5	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Cadmium	< 0.36	0.36	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Chromium	12.9	0.91	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Lead	42.3	0.91	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Mercury	< 0.036	0.036	mg/kg	1	01/20/14	01/20/14 EAL	SW846 7471B ¹	SW846 7471B ³
Selenium	< 0.91	0.91	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Silver	< 0.45	0.45	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴

- (1) Instrument QC Batch: MA16666
- (2) Instrument QC Batch: MA16668
- (3) Prep QC Batch: MP22392
- (4) Prep QC Batch: MP22393

RL = Reporting Limit

4.15
4

Report of Analysis

Client Sample ID: GP-14 2-4'		Date Sampled: 01/16/14
Lab Sample ID: MC27709-8A		Date Received: 01/16/14
Matrix: SO - Soil		Percent Solids: 89.4
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

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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	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Barium	< 0.50	0.50		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Cadmium	< 0.0040	0.0040		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Chromium	< 0.010	0.010		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Lead	0.016	0.010		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Mercury	< 0.00020	0.00020		mg/l	1	01/21/14	01/22/14 SA	SW846 7470A ¹	SW846 7470A ⁴
Selenium	< 0.025	0.025		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Silver	< 0.0050	0.0050		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³

- (1) Instrument QC Batch: MA16673
- (2) Instrument QC Batch: MA16678
- (3) Prep QC Batch: MP22395
- (4) Prep QC Batch: MP22406

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

Report of Analysis

Client Sample ID: GP-17 1-3'		Date Sampled: 01/16/14
Lab Sample ID: MC27709-9		Date Received: 01/16/14
Matrix: SO - Soil		Percent Solids: 91.0
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M62814.D	1	01/21/14	KD	n/a	n/a	MSM2200
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	4.99 g	5.0 ml
Run #2		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	41.5	11	ug/kg	
107-13-1	Acrylonitrile	ND	28	ug/kg	
71-43-2	Benzene	ND	0.55	ug/kg	
108-86-1	Bromobenzene	ND	5.5	ug/kg	
75-27-4	Bromodichloromethane	ND	2.2	ug/kg	
75-25-2	Bromoform	ND	2.2	ug/kg	
74-83-9	Bromomethane	ND	2.2	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	ug/kg	
104-51-8	n-Butylbenzene	ND	5.5	ug/kg	
135-98-8	sec-Butylbenzene	ND	5.5	ug/kg	
98-06-6	tert-Butylbenzene	ND	5.5	ug/kg	
75-15-0	Carbon disulfide	ND	5.5	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.2	ug/kg	
108-90-7	Chlorobenzene	ND	2.2	ug/kg	
75-00-3	Chloroethane	ND	5.5	ug/kg	
67-66-3	Chloroform	ND	2.2	ug/kg	
74-87-3	Chloromethane	ND	5.5	ug/kg	
95-49-8	o-Chlorotoluene	ND	5.5	ug/kg	
106-43-4	p-Chlorotoluene	ND	5.5	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.5	ug/kg	
124-48-1	Dibromochloromethane	ND	2.2	ug/kg	
106-93-4	1,2-Dibromoethane	ND	2.2	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	2.2	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	2.2	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	2.2	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	2.2	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.2	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.2	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.2	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.2	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.2	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.2	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 1-3'		Date Sampled: 01/16/14
Lab Sample ID: MC27709-9		Date Received: 01/16/14
Matrix: SO - Soil		Percent Solids: 91.0
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.5	ug/kg	
594-20-7	2,2-Dichloropropane	ND	5.5	ug/kg	
563-58-6	1,1-Dichloropropene	ND	5.5	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.2	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.2	ug/kg	
100-41-4	Ethylbenzene	ND	2.2	ug/kg	
76-13-1	Freon 113	ND	5.5	ug/kg	
87-68-3	Hexachlorobutadiene	ND	5.5	ug/kg	
591-78-6	2-Hexanone	ND	11	ug/kg	
98-82-8	Isopropylbenzene	ND	5.5	ug/kg	
99-87-6	p-Isopropyltoluene	ND	5.5	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.2	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.5	ug/kg	
74-95-3	Methylene bromide	ND	5.5	ug/kg	
75-09-2	Methylene chloride	ND	2.2	ug/kg	
91-20-3	Naphthalene	ND	5.5	ug/kg	
103-65-1	n-Propylbenzene	ND	5.5	ug/kg	
100-42-5	Styrene	ND	5.5	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.5	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.2	ug/kg	
127-18-4	Tetrachloroethene	ND	2.2	ug/kg	
109-99-9	Tetrahydrofuran	ND	11	ug/kg	
108-88-3	Toluene	ND	5.5	ug/kg	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.5	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.5	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.5	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.2	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.2	ug/kg	
79-01-6	Trichloroethene	ND	2.2	ug/kg	
75-69-4	Trichlorofluoromethane	ND	2.2	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	5.5	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	5.5	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	5.5	ug/kg	
75-01-4	Vinyl chloride	ND	2.2	ug/kg	
	m,p-Xylene	ND	2.2	ug/kg	
95-47-6	o-Xylene	ND	2.2	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%		70-130%

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 1-3'		Date Sampled: 01/16/14
Lab Sample ID: MC27709-9		Date Received: 01/16/14
Matrix: SO - Soil		Percent Solids: 91.0
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	87%		70-130%
460-00-4	4-Bromofluorobenzene	87%		70-130%

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-17 1-3'		Date Sampled: 01/16/14
Lab Sample ID: MC27709-9		Date Received: 01/16/14
Matrix: SO - Soil		Percent Solids: 91.0
Method: SW846 8270D SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W17345.D	5	01/21/14	KR	01/17/14	OP36569	MSW763
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.3 g	1.0 ml
Run #2		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
95-57-8	2-Chlorophenol	ND	1400	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2700	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2700	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2700	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5400	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2700	ug/kg	
95-48-7	2-Methylphenol	ND	2700	ug/kg	
106-44-5	4-Methylphenol	ND	2700	ug/kg	
88-75-5	2-Nitrophenol	ND	2700	ug/kg	
100-02-7	4-Nitrophenol	ND	5400	ug/kg	
87-86-5	Pentachlorophenol	ND	2700	ug/kg	
108-95-2	Phenol	ND	1400	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2700	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2700	ug/kg	
83-32-9	Acenaphthene	ND	540	ug/kg	
208-96-8	Acenaphthylene	2090	540	ug/kg	
62-53-3	Aniline	ND	2700	ug/kg	
120-12-7	Anthracene	1190	540	ug/kg	
56-55-3	Benzo(a)anthracene	5250	540	ug/kg	
50-32-8	Benzo(a)pyrene	5160	540	ug/kg	
205-99-2	Benzo(b)fluoranthene	5000	540	ug/kg	
191-24-2	Benzo(g,h,i)perylene	3310	540	ug/kg	
207-08-9	Benzo(k)fluoranthene	4010	540	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	ug/kg	
106-47-8	4-Chloroaniline	ND	2700	ug/kg	
86-74-8	Carbazole	ND	540	ug/kg	
218-01-9	Chrysene	6090	540	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	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 1-3'		Date Sampled: 01/16/14
Lab Sample ID: MC27709-9		Date Received: 01/16/14
Matrix: SO - Soil		Percent Solids: 91.0
Method: SW846 8270D SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	1400	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2700	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2700	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	941	540	ug/kg	
132-64-9	Dibenzofuran	ND	540	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	ug/kg	
206-44-0	Fluoranthene	9810	540	ug/kg	
86-73-7	Fluorene	ND	540	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2700	ug/kg	
67-72-1	Hexachloroethane	ND	1400	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	2870	540	ug/kg	
78-59-1	Isophorone	ND	1400	ug/kg	
91-57-6	2-Methylnaphthalene	ND	540	ug/kg	
88-74-4	2-Nitroaniline	ND	2700	ug/kg	
99-09-2	3-Nitroaniline	ND	2700	ug/kg	
100-01-6	4-Nitroaniline	ND	2700	ug/kg	
91-20-3	Naphthalene	ND	540	ug/kg	
98-95-3	Nitrobenzene	ND	1400	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	ug/kg	
82-68-8	Pentachloronitrobenzene	ND	2700	ug/kg	
85-01-8	Phenanthrene	5770	540	ug/kg	
129-00-0	Pyrene	10700	540	ug/kg	
110-86-1	Pyridine	ND	2700	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2700	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1400	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	48%		30-130%
4165-62-2	Phenol-d5	45%		30-130%
118-79-6	2,4,6-Tribromophenol	58%		30-130%
4165-60-0	Nitrobenzene-d5	53%		30-130%

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 1-3'		Date Sampled: 01/16/14
Lab Sample ID: MC27709-9		Date Received: 01/16/14
Matrix: SO - Soil		Percent Solids: 91.0
Method: SW846 8270D SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

ABN RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	63%		30-130%
1718-51-0	Terphenyl-d14	67%		30-130%

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-17 1-3'		Date Sampled: 01/16/14
Lab Sample ID: MC27709-9		Date Received: 01/16/14
Matrix: SO - Soil		Percent Solids: 91.0
Method: CT-ETPH 7/06 SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC659757.D	5	01/23/14	KN	01/17/14	OP36574	GBC3573
Run #2							

Run #	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)	299	89	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	61%		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-17 1-3'	Date Sampled: 01/16/14
Lab Sample ID: MC27709-9	Date Received: 01/16/14
Matrix: SO - Soil	Percent Solids: 91.0
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT	

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	1.5	0.87	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Barium	26.6	4.3	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Cadmium	< 0.35	0.35	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Chromium	11.3	0.87	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Lead	127	0.87	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Mercury	< 0.034	0.034	mg/kg	1	01/20/14	01/20/14 EAL	SW846 7471B ¹	SW846 7471B ³
Selenium	< 0.87	0.87	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Silver	< 0.43	0.43	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴

- (1) Instrument QC Batch: MA16666
- (2) Instrument QC Batch: MA16668
- (3) Prep QC Batch: MP22392
- (4) Prep QC Batch: MP22393

RL = Reporting Limit

4.17
4

Report of Analysis

Client Sample ID: GP-17 1-3'		Date Sampled: 01/16/14
Lab Sample ID: MC27709-9A		Date Received: 01/16/14
Matrix: SO - Soil		Percent Solids: 91.0
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, 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	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Barium	< 0.50	0.50		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Cadmium	< 0.0040	0.0040		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Chromium	0.014	0.010		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Lead	0.079	0.010		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Mercury	< 0.00020	0.00020		mg/l	1	01/21/14	01/22/14 SA	SW846 7470A ¹	SW846 7470A ⁴
Selenium	< 0.025	0.025		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Silver	< 0.0050	0.0050		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³

- (1) Instrument QC Batch: MA16673
- (2) Instrument QC Batch: MA16678
- (3) Prep QC Batch: MP22395
- (4) Prep QC Batch: MP22406

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

Report of Analysis

Client Sample ID: GP-18 1-3'		Date Sampled: 01/16/14
Lab Sample ID: MC27709-10		Date Received: 01/16/14
Matrix: SO - Soil		Percent Solids: 90.7
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M62815.D	1	01/21/14	KD	n/a	n/a	MSM2200
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	5.07 g	5.0 ml
Run #2		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	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	2.2	ug/kg	
75-25-2	Bromoform	ND	2.2	ug/kg	
74-83-9	Bromomethane	ND	2.2	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	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	2.2	ug/kg	
108-90-7	Chlorobenzene	ND	2.2	ug/kg	
75-00-3	Chloroethane	ND	5.4	ug/kg	
67-66-3	Chloroform	ND	2.2	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	2.2	ug/kg	
106-93-4	1,2-Dibromoethane	ND	2.2	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	2.2	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	2.2	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	2.2	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	2.2	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.2	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.2	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.2	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.2	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.2	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.2	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 1-3'	Date Sampled:	01/16/14
Lab Sample ID:	MC27709-10	Date Received:	01/16/14
Matrix:	SO - Soil	Percent Solids:	90.7
Method:	SW846 8260C		
Project:	Bridge No. 1127-Rte 80 Over Farm River North Branford, 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	2.2	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.2	ug/kg	
100-41-4	Ethylbenzene	ND	2.2	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	2.2	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	2.2	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	2.2	ug/kg	
127-18-4	Tetrachloroethene	ND	2.2	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	2.2	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.2	ug/kg	
79-01-6	Trichloroethene	ND	2.2	ug/kg	
75-69-4	Trichlorofluoromethane	ND	2.2	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	2.2	ug/kg	
	m,p-Xylene	ND	2.2	ug/kg	
95-47-6	o-Xylene	ND	2.2	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		70-130%

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 1-3'		Date Sampled: 01/16/14
Lab Sample ID: MC27709-10		Date Received: 01/16/14
Matrix: SO - Soil		Percent Solids: 90.7
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

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VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	87%		70-130%
460-00-4	4-Bromofluorobenzene	86%		70-130%

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 1-3'		Date Sampled: 01/16/14
Lab Sample ID: MC27709-10		Date Received: 01/16/14
Matrix: SO - Soil		Percent Solids: 90.7
Method: SW846 8270D SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W17346.D	5	01/21/14	KR	01/17/14	OP36569	MSW763
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	1400	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2700	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2700	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2700	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5500	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2700	ug/kg	
95-48-7	2-Methylphenol	ND	2700	ug/kg	
106-44-5	4-Methylphenol	ND	2700	ug/kg	
88-75-5	2-Nitrophenol	ND	2700	ug/kg	
100-02-7	4-Nitrophenol	ND	5500	ug/kg	
87-86-5	Pentachlorophenol	ND	2700	ug/kg	
108-95-2	Phenol	ND	1400	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2700	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2700	ug/kg	
83-32-9	Acenaphthene	ND	550	ug/kg	
208-96-8	Acenaphthylene	3780	550	ug/kg	
62-53-3	Aniline	ND	2700	ug/kg	
120-12-7	Anthracene	1950	550	ug/kg	
56-55-3	Benzo(a)anthracene	10300	550	ug/kg	
50-32-8	Benzo(a)pyrene	10900	550	ug/kg	
205-99-2	Benzo(b)fluoranthene	11200	550	ug/kg	
191-24-2	Benzo(g,h,i)perylene	6880	550	ug/kg	
207-08-9	Benzo(k)fluoranthene	8380	550	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	ug/kg	
106-47-8	4-Chloroaniline	ND	2700	ug/kg	
86-74-8	Carbazole	685	550	ug/kg	
218-01-9	Chrysene	12800	550	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	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 1-3'	Date Sampled:	01/16/14
Lab Sample ID:	MC27709-10	Date Received:	01/16/14
Matrix:	SO - Soil	Percent Solids:	90.7
Method:	SW846 8270D SW846 3546		
Project:	Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	1400	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2700	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2700	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	2130	550	ug/kg	
132-64-9	Dibenzofuran	ND	550	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	ug/kg	
206-44-0	Fluoranthene	19000	550	ug/kg	
86-73-7	Fluorene	ND	550	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2700	ug/kg	
67-72-1	Hexachloroethane	ND	1400	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	6460	550	ug/kg	
78-59-1	Isophorone	ND	1400	ug/kg	
91-57-6	2-Methylnaphthalene	ND	550	ug/kg	
88-74-4	2-Nitroaniline	ND	2700	ug/kg	
99-09-2	3-Nitroaniline	ND	2700	ug/kg	
100-01-6	4-Nitroaniline	ND	2700	ug/kg	
91-20-3	Naphthalene	ND	550	ug/kg	
98-95-3	Nitrobenzene	ND	1400	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	ug/kg	
82-68-8	Pentachloronitrobenzene	ND	2700	ug/kg	
85-01-8	Phenanthrene	7960	550	ug/kg	
129-00-0	Pyrene	19400	550	ug/kg	
110-86-1	Pyridine	ND	2700	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2700	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1400	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	51%		30-130%
4165-62-2	Phenol-d5	58%		30-130%
118-79-6	2,4,6-Tribromophenol	58%		30-130%
4165-60-0	Nitrobenzene-d5	53%		30-130%

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 1-3'		Date Sampled: 01/16/14
Lab Sample ID: MC27709-10		Date Received: 01/16/14
Matrix: SO - Soil		Percent Solids: 90.7
Method: SW846 8270D SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

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ABN RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	62%		30-130%
1718-51-0	Terphenyl-d14	69%		30-130%

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 1-3'		Date Sampled: 01/16/14
Lab Sample ID: MC27709-10		Date Received: 01/16/14
Matrix: SO - Soil		Percent Solids: 90.7
Method: CT-ETPH 7/06 SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC659759.D	5	01/23/14	KN	01/17/14	OP36574	GBC3573
Run #2							

Run #	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)	668	87	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	62%		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

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Report of Analysis

Client Sample ID: GP-18 1-3'		Date Sampled: 01/16/14
Lab Sample ID: MC27709-10		Date Received: 01/16/14
Matrix: SO - Soil		Percent Solids: 90.7
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	1.8	0.88	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Barium	34.4	4.4	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Cadmium	< 0.35	0.35	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Chromium	12.4	0.88	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Lead	268	0.88	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Mercury	< 0.035	0.035	mg/kg	1	01/20/14	01/20/14 EAL	SW846 7471B ¹	SW846 7471B ³
Selenium	< 0.88	0.88	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Silver	< 0.44	0.44	mg/kg	1	01/20/14	01/20/14 EAL	SW846 6010C ²	SW846 3050B ⁴

- (1) Instrument QC Batch: MA16666
- (2) Instrument QC Batch: MA16668
- (3) Prep QC Batch: MP22392
- (4) Prep QC Batch: MP22393

RL = Reporting Limit

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Report of Analysis

Client Sample ID: GP-18 1-3'		Date Sampled: 01/16/14
Lab Sample ID: MC27709-10A		Date Received: 01/16/14
Matrix: SO - Soil		Percent Solids: 90.7
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

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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	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Barium	< 0.50	0.50		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Cadmium	< 0.0040	0.0040		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Chromium	< 0.010	0.010		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Lead	0.17	0.010		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Mercury	< 0.00020	0.00020		mg/l	1	01/21/14	01/22/14 SA	SW846 7470A ¹	SW846 7470A ⁴
Selenium	< 0.025	0.025		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³
Silver	< 0.0050	0.0050		mg/l	1	01/21/14	01/22/14 EAL	SW846 6010C ²	SW846 3010A ³

- (1) Instrument QC Batch: MA16673
- (2) Instrument QC Batch: MA16678
- (3) Prep QC Batch: MP22395
- (4) Prep QC Batch: MP22406

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

Report of Analysis

Client Sample ID: TB-1		Date Sampled: 01/16/14
Lab Sample ID: MC27709-11		Date Received: 01/16/14
Matrix: AQ - Trip Blank Water		Percent Solids: n/a
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N83881.D	1	01/20/14	JB	n/a	n/a	MSN3129
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	5.0	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	2.0	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: 01/16/14
Lab Sample ID: MC27709-11		Date Received: 01/16/14
Matrix: AQ - Trip Blank Water		Percent Solids: n/a
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, 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	5.0	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	92%		70-130%

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: 01/16/14
Lab Sample ID: MC27709-11		Date Received: 01/16/14
Matrix: AQ - Trip Blank Water		Percent Solids: n/a
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	100%		70-130%
460-00-4	4-Bromofluorobenzene	106%		70-130%

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

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Misc. Forms

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Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- RCP Form
- Sample Tracking Chronicle

CHAIN OF CUSTODY

495 TECHNOLOGY CENTER WEST • BUILDING ONE
MARLBOROUGH, MA 01752
TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #: **MC27709**
ACCUTEST QUOTE #:

CLIENT INFORMATION			FACILITY INFORMATION						ANALYTICAL INFORMATION										MATRIX CODES				
CDR Maguire NAME 2080 Silas Deane Hwy ADDRESS Rolley Hill CT 06067 CITY STATE ZIP Jane Witherell jane.witherell@cdrmaguire.com SEND REPORT TO: PHONE # 860 563 3154			Bride No. 1127 - Rte 80 Over Farm River PROJECT NAME North Branford, CT LOCATION 98-101 PROJECT NO. maguire.com email: [redacted] FAX: [redacted]						VOLs 8360 SVOLs 8370 CT-TPH Aest 8081 PCBs 8082 Herbs 8151 Total-PCAA & Metals SPCA RCAA & Metals										DW - DRINKING WATER GW - GROUND WATER WW - WASTE WATER SO - SOIL SL - SLUDGE OI - OIL LIQ - OTHER LIQUID SOL - OTHER SOLID				
ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION			MATRIX	# OF BOTTLES	PRESERVATION															LAB USE ONLY	
		DATE	TIME	SAMPLED BY:			HCl	NH3	HNO3	H2SO4	NONE												
-1	SED-1	1/16/14	7:55am	CK	SO	4						X	X	X	X	X	X	X	X	X	X	X	
-2	SED-2		8:30am												X	X	X						
-3	SED-3		7:00am												X	X	X						
-4	SED-4		1:00pm												X	X	X						
-5	GP-4 1'3"		8:55am																				1065,
-6	GP-5 1'3"		9:30am																				2c,
-7	GP-13 1'3"		1:55pm																				3c2
-8	GP-14 2'4"		12:00pm																				
-9	GP-17 1'3"		11:05am																				
-10	GP-18 1'3"		10:15am	✓	✓	✓						✓	✓										
-11	TB-1		7:00am				GW	2	X			✓											
DATA TURNAROUND INFORMATION			DATA DELIVERABLE INFORMATION						COMMENTS/REMARKS														
<input checked="" type="checkbox"/> 14 DAYS STANDARD APPROVED BY: _____ <input type="checkbox"/> 7 DAYS RUSH <input type="checkbox"/> 48 HOUR EMERGENCY <input type="checkbox"/> OTHER _____ 14 DAY TURNAROUND HARDCOPY. EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED			<input checked="" type="checkbox"/> STANDARD - electronic <input type="checkbox"/> COMMERCIAL "B" <input type="checkbox"/> DISK DELIVERABLE <input type="checkbox"/> STATE FORMS <input type="checkbox"/> OTHER (SPECIFY) _____						Include CT RCP QA/QC Report														
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY																							
RELINQUISHED BY: 1. [Signature]	DATE TIME: 1/16/14 2:24pm	RECEIVED BY: 1. [Signature]	RELINQUISHED BY: 2. [Signature]	DATE TIME: 1-16-14	RECEIVED BY: 2. [Signature]	RELINQUISHED BY: 3.	DATE TIME:	RECEIVED BY: 3.	RELINQUISHED BY: 4.	DATE TIME:	RECEIVED BY: 4.	RELINQUISHED BY: 5.	DATE TIME:	RECEIVED BY: 5.									
SEAL # _____ PRESERVE WHERE APPLICABLE <input type="checkbox"/> ON ICE <input checked="" type="checkbox"/> TEMPERATURE <u>0.7</u> C																							

5.1 5

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC27709 **Client:** CDR MAGVIRE **Immediate Client Services Action Required:** No
Date / Time Received: 1/16/2014 **Delivery Method:** _____ **Client Service Action Required at Login:** No
Project: _____ **No. Coolers:** 1 **Airbill #'s:** _____

Cooler Security Y or N Y or N
 1. Custody Seals Present: 3. COC Present:
 2. Custody Seals Intact: 4. Smpl Dates/Time OK

Cooler Temperature Y or N
 1. Temp criteria achieved:
 2. Cooler temp verification: _____ Infared gun
 3. Cooler media: _____ Ice (bag)

Quality Control Preservation Y or N N/A
 1. Trip Blank present / cooler:
 2. Trip Blank listed on COC:
 3. Samples preserved properly:
 4. VOCs headspace free:

Sample Integrity - Documentation Y or N
 1. Sample labels present on bottles:
 2. Container labeling complete:
 3. Sample container label / COC agree:

Sample Integrity - Condition Y or N
 1. Sample recvd within HT:
 2. All containers accounted for:
 3. Condition of sample: _____ Intact

Sample Integrity - Instructions Y or N N/A
 1. Analysis requested is clear:
 2. Bottles received for unspecified tests:
 3. Sufficient volume recvd for analysis:
 4. Compositing instructions clear:
 5. Filtering instructions clear:

Comments

5.1
5

**Reasonable Confidence Protocol
Laboratory Analysis
QA/QC Certification Form**

Laboratory Name: Accutest New England **Client:** CDR Maguire
Project Location: Bridge No.1127-Rte 80 Over Farm River **Project Number:** 98-101
North Branford, CT
Sampling Date(s): 1/16/2014

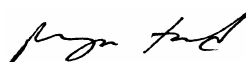
Laboratory Sample ID(s): MC27709-1, MC27709-2, MC27709-3, MC27709-4, MC27709-5, MC27709-6, MC27709-7, MC27709-8, MC27709-9, MC27709-10, MC27709-11, MC27709-1A, MC27709-2A, MC27709-3A, MC27709-4A, MC27709-5A, MC27709-6A, MC27709-7A, MC27709-8A, MC27709-9A, MC27709-10A

Methods: CT-ETPH 7/06, EPA 160.3 M, SM21 2540 B MOD., SW846 6010C, SW846 747C

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: Reza Tand Date: 1/27/2014
Accutest New England

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Internal Sample Tracking Chronicle

CDR Maguire

Job No: MC27709

Bridge No. 1127-Rte 80 Over Farm River North Branford, CT
 Project No: 98-101

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC27709-1 Collected: 16-JAN-14 07:55 By: CK Received: 16-JAN-14 By: NT						
SED-1						
MC27709-1	SM21 2540 B MOD.	20-JAN-14	MC			% SOL
MC27709-1	SW846 7471B	20-JAN-14 12:36	EAL	20-JAN-14	EM	HG
MC27709-1	SW846 6010C	20-JAN-14 13:26	EAL	20-JAN-14	MA	AG, AS, BA, CD, CR, PB, SE
MC27709-1	SW846 8260C	21-JAN-14 12:50	KD			V8260RCP
MC27709-1	SW846 8270D	21-JAN-14 15:44	KR	17-JAN-14	BJ	AB8270RCP
MC27709-1	SW846 8151	21-JAN-14 21:41	CZ	17-JAN-14	MEW	H8151RCP
MC27709-1	SW846 8082	21-JAN-14 23:00	NK	17-JAN-14	MEW	P8082RCP
MC27709-1	CT-ETPH 7/06	23-JAN-14 20:26	KN	17-JAN-14	FC	BCTTPH
MC27709-1	SW846 8081	24-JAN-14 15:42	CZ	17-JAN-14	AJ	P8081RCP
MC27709-2 Collected: 16-JAN-14 08:30 By: CK Received: 16-JAN-14 By: NT						
SED-2						
MC27709-2	SM21 2540 B MOD.	20-JAN-14	MC			% SOL
MC27709-2	SW846 7471B	20-JAN-14 12:38	EAL	20-JAN-14	EM	HG
MC27709-2	SW846 6010C	20-JAN-14 13:31	EAL	20-JAN-14	MA	AG, AS, BA, CD, CR, PB, SE
MC27709-2	SW846 8260C	21-JAN-14 13:20	KD			V8260RCP
MC27709-2	SW846 8270D	21-JAN-14 16:07	KR	17-JAN-14	BJ	AB8270RCP
MC27709-2	SW846 8151	21-JAN-14 22:10	CZ	17-JAN-14	MEW	H8151RCP
MC27709-2	SW846 8082	21-JAN-14 23:19	NK	17-JAN-14	MEW	P8082RCP
MC27709-2	CT-ETPH 7/06	23-JAN-14 19:23	KN	17-JAN-14	FC	BCTTPH
MC27709-2	SW846 8081	24-JAN-14 16:00	CZ	17-JAN-14	AJ	P8081RCP
MC27709-3 Collected: 16-JAN-14 07:00 By: CK Received: 16-JAN-14 By: NT						
SED-3						
MC27709-3	SM21 2540 B MOD.	20-JAN-14	MC			% SOL
MC27709-3	SW846 7471B	20-JAN-14 12:40	EAL	20-JAN-14	EM	HG
MC27709-3	SW846 6010C	20-JAN-14 13:35	EAL	20-JAN-14	MA	AG, AS, BA, CD, CR, PB, SE
MC27709-3	SW846 8260C	21-JAN-14 13:49	KD			V8260RCP
MC27709-3	SW846 8270D	21-JAN-14 16:30	KR	17-JAN-14	BJ	AB8270RCP
MC27709-3	SW846 8151	21-JAN-14 22:39	CZ	17-JAN-14	MEW	H8151RCP
MC27709-3	SW846 8082	21-JAN-14 23:38	NK	17-JAN-14	MEW	P8082RCP
MC27709-3	CT-ETPH 7/06	23-JAN-14 18:20	KN	17-JAN-14	FC	BCTTPH
MC27709-3	SW846 8081	24-JAN-14 16:18	CZ	17-JAN-14	AJ	P8081RCP

Internal Sample Tracking Chronicle

CDR Maguire

Job No: MC27709

Bridge No. 1127-Rte 80 Over Farm River North Branford, CT
 Project No: 98-101

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
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MC27709-4 Collected: 16-JAN-14 13:00 By: CK Received: 16-JAN-14 By: NT
 SED-4

MC27709-4 SM21 2540 B MOD.	20-JAN-14	MC				%SOL
MC27709-4 SW846 7471B	20-JAN-14 12:43	EAL	20-JAN-14	EM		HG
MC27709-4 SW846 6010C	20-JAN-14 13:40	EAL	20-JAN-14	MA		AG, AS, BA, CD, CR, PB, SE
MC27709-4 SW846 8260C	21-JAN-14 14:19	KD				V8260RCP
MC27709-4 SW846 8270D	21-JAN-14 16:52	KR	17-JAN-14	BJ		AB8270RCP
MC27709-4 SW846 8151	21-JAN-14 23:08	CZ	17-JAN-14	MEW		H8151RCP
MC27709-4 SW846 8082	21-JAN-14 23:57	NK	17-JAN-14	MEW		P8082RCP
MC27709-4 CT-ETPH 7/06	23-JAN-14 18:51	KN	17-JAN-14	FC		BCTTPH
MC27709-4 SW846 8081	24-JAN-14 16:37	CZ	17-JAN-14	AJ		P8081RCP

MC27709-5 Collected: 16-JAN-14 08:55 By: CK Received: 16-JAN-14 By: NT
 GP-4 1-3'

MC27709-5 SM21 2540 B MOD.	20-JAN-14	MC				%SOL
MC27709-5 SW846 7471B	20-JAN-14 12:45	EAL	20-JAN-14	EM		HG
MC27709-5 SW846 6010C	20-JAN-14 13:45	EAL	20-JAN-14	MA		AG, AS, BA, CD, CR, PB, SE
MC27709-5 SW846 8260C	21-JAN-14 14:49	KD				V8260RCP
MC27709-5 SW846 8270D	21-JAN-14 17:15	KR	17-JAN-14	BJ		AB8270RCP
MC27709-5 CT-ETPH 7/06	23-JAN-14 23:02	KN	17-JAN-14	FC		BCTTPH

MC27709-6 Collected: 16-JAN-14 09:30 By: CK Received: 16-JAN-14 By: NT
 GP-5 1-3'

MC27709-6 SM21 2540 B MOD.	20-JAN-14	MC				%SOL
MC27709-6 SW846 7471B	20-JAN-14 12:48	EAL	20-JAN-14	EM		HG
MC27709-6 SW846 6010C	20-JAN-14 13:50	EAL	20-JAN-14	MA		AG, AS, BA, CD, CR, PB, SE
MC27709-6 SW846 8260C	21-JAN-14 15:18	KD				V8260RCP
MC27709-6 SW846 8270D	21-JAN-14 17:38	KR	17-JAN-14	BJ		AB8270RCP
MC27709-6 CT-ETPH 7/06	23-JAN-14 23:33	KN	17-JAN-14	FC		BCTTPH

MC27709-7 Collected: 16-JAN-14 13:55 By: CK Received: 16-JAN-14 By: NT
 GP-13 1-3'

MC27709-7 SM21 2540 B MOD.	20-JAN-14	MC				%SOL
MC27709-7 SW846 7471B	20-JAN-14 12:50	EAL	20-JAN-14	EM		HG
MC27709-7 SW846 6010C	20-JAN-14 13:55	EAL	20-JAN-14	MA		AG, AS, BA, CD, CR, PB, SE

Internal Sample Tracking Chronicle

CDR Maguire

Job No: MC27709

Bridge No. 1127-Rte 80 Over Farm River North Branford, CT
 Project No: 98-101

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC27709-7	SW846 8260C	21-JAN-14 15:48	KD			V8260RCP
MC27709-7	SW846 8270D	21-JAN-14 18:02	KR	17-JAN-14	BJ	AB8270RCP
MC27709-7	CT-ETPH 7/06	23-JAN-14 17:48	KN	17-JAN-14	FC	BCTTPH
MC27709-8 Collected: 16-JAN-14 12:00 By: CK Received: 16-JAN-14 By: NT GP-14 2-4'						
MC27709-8	SM21 2540 B MOD.	20-JAN-14	MC			%SOL
MC27709-8	SW846 7471B	20-JAN-14 12:52	EAL	20-JAN-14	EM	HG
MC27709-8	SW846 6010C	20-JAN-14 14:00	EAL	20-JAN-14	MA	AG,AS,BA,CD,CR,PB,SE
MC27709-8	SW846 8260C	21-JAN-14 16:17	KD			V8260RCP
MC27709-8	SW846 8270D	21-JAN-14 18:25	KR	17-JAN-14	BJ	AB8270RCP
MC27709-8	CT-ETPH 7/06	23-JAN-14 19:54	KN	17-JAN-14	FC	BCTTPH
MC27709-9 Collected: 16-JAN-14 11:05 By: CK Received: 16-JAN-14 By: NT GP-17 1-3'						
MC27709-9	SM21 2540 B MOD.	20-JAN-14	MC			%SOL
MC27709-9	SW846 7471B	20-JAN-14 12:55	EAL	20-JAN-14	EM	HG
MC27709-9	SW846 6010C	20-JAN-14 14:14	EAL	20-JAN-14	MA	AG,AS,BA,CD,CR,PB,SE
MC27709-9	SW846 8260C	21-JAN-14 16:47	KD			V8260RCP
MC27709-9	SW846 8270D	21-JAN-14 18:48	KR	17-JAN-14	BJ	AB8270RCP
MC27709-9	CT-ETPH 7/06	23-JAN-14 20:56	KN	17-JAN-14	FC	BCTTPH
MC27709-10 Collected: 16-JAN-14 10:15 By: CK Received: 16-JAN-14 By: NT GP-18 1-3'						
MC27709-10	SM21 2540 B MOD.	20-JAN-14	MC			%SOL
MC27709-10	SW846 7471B	20-JAN-14 12:18	EAL	20-JAN-14	EM	HG
MC27709-10	SW846 6010C	20-JAN-14 14:19	EAL	20-JAN-14	MA	AG,AS,BA,CD,CR,PB,SE
MC27709-10	SW846 8260C	21-JAN-14 17:17	KD			V8260RCP
MC27709-10	SW846 8270D	21-JAN-14 19:11	KR	17-JAN-14	BJ	AB8270RCP
MC27709-10	CT-ETPH 7/06	23-JAN-14 21:28	KN	17-JAN-14	FC	BCTTPH
MC27709-11 Collected: 16-JAN-14 07:00 By: CK Received: 16-JAN-14 By: NT TB-1						
MC27709-11	SW846 8260C	20-JAN-14 11:50	JB			V8260RCP

Internal Sample Tracking Chronicle

CDR Maguire

Job No: MC27709

Bridge No. 1127-Rte 80 Over Farm River North Branford, CT
 Project No: 98-101

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
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MC27709-1A Collected: 16-JAN-14 07:55 By: CK Received: 16-JAN-14 By: NT
 SED-1

MC27709-1A SW846 6010C 22-JAN-14 01:24 EAL 21-JAN-14 EM EAG,EAS,EBA,ECD,ECR,EPB,ESE
 MC27709-1A SW846 7470A 22-JAN-14 11:02 SA 21-JAN-14 EM EHG

MC27709-2A Collected: 16-JAN-14 08:30 By: CK Received: 16-JAN-14 By: NT
 SED-2

MC27709-2A SW846 6010C 22-JAN-14 01:53 EAL 21-JAN-14 EM EAG,EAS,EBA,ECD,ECR,EPB,ESE
 MC27709-2A SW846 7470A 22-JAN-14 11:05 SA 21-JAN-14 EM EHG

MC27709-3A Collected: 16-JAN-14 07:00 By: CK Received: 16-JAN-14 By: NT
 SED-3

MC27709-3A SW846 6010C 22-JAN-14 01:58 EAL 21-JAN-14 EM EAG,EAS,EBA,ECD,ECR,EPB,ESE
 MC27709-3A SW846 7470A 22-JAN-14 11:07 SA 21-JAN-14 EM EHG

MC27709-4A Collected: 16-JAN-14 13:00 By: CK Received: 16-JAN-14 By: NT
 SED-4

MC27709-4A SW846 6010C 22-JAN-14 02:03 EAL 21-JAN-14 EM EAG,EAS,EBA,ECD,ECR,EPB,ESE
 MC27709-4A SW846 7470A 22-JAN-14 11:09 SA 21-JAN-14 EM EHG

MC27709-5A Collected: 16-JAN-14 08:55 By: CK Received: 16-JAN-14 By: NT
 GP-4 1-3'

MC27709-5A SW846 6010C 22-JAN-14 02:08 EAL 21-JAN-14 EM EAG,EAS,EBA,ECD,ECR,EPB,ESE
 MC27709-5A SW846 7470A 22-JAN-14 11:12 SA 21-JAN-14 EM EHG

MC27709-6A Collected: 16-JAN-14 09:30 By: CK Received: 16-JAN-14 By: NT
 GP-5 1-3'

MC27709-6A SW846 6010C 22-JAN-14 02:13 EAL 21-JAN-14 EM EAG,EAS,EBA,ECD,ECR,EPB,ESE
 MC27709-6A SW846 7470A 22-JAN-14 11:19 SA 21-JAN-14 EM EHG

MC27709-7A Collected: 16-JAN-14 13:55 By: CK Received: 16-JAN-14 By: NT
 GP-13 1-3'

Internal Sample Tracking Chronicle

CDR Maguire

Job No: MC27709

Bridge No. 1127-Rte 80 Over Farm River North Branford, CT
 Project No: 98-101

5.3
5

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC27709-7	SW846 6010C	22-JAN-14 02:18	EAL	21-JAN-14	EM	EAG,EAS,EBA,ECD,ECR,EPB,ESE
MC27709-7	SW846 7470A	22-JAN-14 11:22	SA	21-JAN-14	EM	EHG
MC27709-8 Collected: 16-JAN-14 12:00 By: CK Received: 16-JAN-14 By: NT GP-14 2-4'						
MC27709-8	SW846 6010C	22-JAN-14 02:22	EAL	21-JAN-14	EM	EAG,EAS,EBA,ECD,ECR,EPB,ESE
MC27709-8	SW846 7470A	22-JAN-14 11:24	SA	21-JAN-14	EM	EHG
MC27709-9 Collected: 16-JAN-14 11:05 By: CK Received: 16-JAN-14 By: NT GP-17 1-3'						
MC27709-9	SW846 6010C	22-JAN-14 02:37	EAL	21-JAN-14	EM	EAG,EAS,EBA,ECD,ECR,EPB,ESE
MC27709-9	SW846 7470A	22-JAN-14 11:27	SA	21-JAN-14	EM	EHG
MC27709-10 Collected: 16-JAN-14 10:15 By: CK Received: 16-JAN-14 By: NT GP-18 1-3'						
MC27709-10	SW846 6010C	22-JAN-14 02:42	EAL	21-JAN-14	EM	EAG,EAS,EBA,ECD,ECR,EPB,ESE
MC27709-10	SW846 7470A	22-JAN-14 11:29	SA	21-JAN-14	EM	EHG

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: MC27709

Account: CDRMRHCT CDR Maguire

Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3129-MB	N83879.D	1	01/20/14	JB	n/a	n/a	MSN3129

The QC reported here applies to the following samples:

Method: SW846 8260C

MC27709-11

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	5.0	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	2.0	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: MC27709
Account: CDRMRHCT CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3129-MB	N83879.D	1	01/20/14	JB	n/a	n/a	MSN3129

The QC reported here applies to the following samples:

Method: SW846 8260C

MC27709-11

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	5.0	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	

Method Blank Summary

Job Number: MC27709

Account: CDRMRHCT CDR Maguire

Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3129-MB	N83879.D	1	01/20/14	JB	n/a	n/a	MSN3129

The QC reported here applies to the following samples:

Method: SW846 8260C

MC27709-11

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	91% 70-130%
2037-26-5	Toluene-D8	99% 70-130%
460-00-4	4-Bromofluorobenzene	104% 70-130%

Method Blank Summary

Job Number: MC27709

Account: CDRMRHCT CDR Maguire

Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM2200-MB	M62803.D	1	01/21/14	KD	n/a	n/a	MSM2200

The QC reported here applies to the following samples:

Method: SW846 8260C

MC27709-1, MC27709-2, MC27709-3, MC27709-4, MC27709-5, MC27709-6, MC27709-7, MC27709-8, MC27709-9, MC27709-10

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	10	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: MC27709

Account: CDRMRHCT CDR Maguire

Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM2200-MB	M62803.D	1	01/21/14	KD	n/a	n/a	MSM2200

The QC reported here applies to the following samples:

Method: SW846 8260C

MC27709-1, MC27709-2, MC27709-3, MC27709-4, MC27709-5, MC27709-6, MC27709-7, MC27709-8, MC27709-9, MC27709-10

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: MC27709
Account: CDRMRHCT CDR Maguire
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM2200-MB	M62803.D	1	01/21/14	KD	n/a	n/a	MSM2200

The QC reported here applies to the following samples:

Method: SW846 8260C

MC27709-1, MC27709-2, MC27709-3, MC27709-4, MC27709-5, MC27709-6, MC27709-7, MC27709-8, MC27709-9, MC27709-10

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	86% 70-130%
2037-26-5	Toluene-D8	88% 70-130%
460-00-4	4-Bromofluorobenzene	86% 70-130%

Blank Spike Summary

Job Number: MC27709
Account: CDRMRHCT CDR Maguire
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3129-BS	N83876.D	1	01/20/14	JB	n/a	n/a	MSN3129

The QC reported here applies to the following samples:

Method: SW846 8260C

MC27709-11

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	26.9	54* a	70-130
107-13-1	Acrylonitrile	100	97.4	97	70-130
71-43-2	Benzene	50	45.5	91	70-130
108-86-1	Bromobenzene	50	47.2	94	70-130
75-27-4	Bromodichloromethane	50	46.3	93	70-130
75-25-2	Bromoform	50	48.8	98	70-130
74-83-9	Bromomethane	50	53.2	106	70-130
78-93-3	2-Butanone (MEK)	50	41.8	84	70-130
104-51-8	n-Butylbenzene	50	52.5	105	70-130
135-98-8	sec-Butylbenzene	50	48.4	97	70-130
98-06-6	tert-Butylbenzene	50	46.4	93	70-130
75-15-0	Carbon disulfide	50	45.8	92	70-130
56-23-5	Carbon tetrachloride	50	52.0	104	70-130
108-90-7	Chlorobenzene	50	43.9	88	70-130
75-00-3	Chloroethane	50	51.6	103	70-130
67-66-3	Chloroform	50	42.4	85	70-130
74-87-3	Chloromethane	50	65.3	131* a	70-130
95-49-8	o-Chlorotoluene	50	44.4	89	70-130
106-43-4	p-Chlorotoluene	50	46.3	93	70-130
96-12-8	1,2-Dibromo-3-chloropropane	50	49.1	98	70-130
124-48-1	Dibromochloromethane	50	46.9	94	70-130
106-93-4	1,2-Dibromoethane	50	45.2	90	70-130
95-50-1	1,2-Dichlorobenzene	50	45.8	92	70-130
541-73-1	1,3-Dichlorobenzene	50	46.0	92	70-130
106-46-7	1,4-Dichlorobenzene	50	47.1	94	70-130
75-71-8	Dichlorodifluoromethane	50	39.9	80	70-130
75-34-3	1,1-Dichloroethane	50	45.7	91	70-130
107-06-2	1,2-Dichloroethane	50	43.3	87	70-130
75-35-4	1,1-Dichloroethene	50	55.7	111	70-130
156-59-2	cis-1,2-Dichloroethene	50	42.0	84	70-130
156-60-5	trans-1,2-Dichloroethene	50	44.3	89	70-130
78-87-5	1,2-Dichloropropane	50	48.7	97	70-130
142-28-9	1,3-Dichloropropane	50	45.4	91	70-130
594-20-7	2,2-Dichloropropane	50	50.2	100	70-130
563-58-6	1,1-Dichloropropene	50	50.8	102	70-130
10061-01-5	cis-1,3-Dichloropropene	50	48.4	97	70-130

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC27709
Account: CDRMRHCT CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3129-BS	N83876.D	1	01/20/14	JB	n/a	n/a	MSN3129

The QC reported here applies to the following samples:

Method: SW846 8260C

MC27709-11

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
10061-02-6	trans-1,3-Dichloropropene	50	50.6	101	70-130
100-41-4	Ethylbenzene	50	46.2	92	70-130
76-13-1	Freon 113	50	47.9	96	70-130
87-68-3	Hexachlorobutadiene	50	51.7	103	70-130
591-78-6	2-Hexanone	50	49.1	98	70-130
98-82-8	Isopropylbenzene	50	46.3	93	70-130
99-87-6	p-Isopropyltoluene	50	49.3	99	70-130
1634-04-4	Methyl Tert Butyl Ether	50	38.8	78	70-130
108-10-1	4-Methyl-2-pentanone (MIBK)	50	50.2	100	70-130
74-95-3	Methylene bromide	50	45.7	91	70-130
75-09-2	Methylene chloride	50	43.8	88	70-130
91-20-3	Naphthalene	50	54.4	109	70-130
103-65-1	n-Propylbenzene	50	45.2	90	70-130
100-42-5	Styrene	50	48.2	96	70-130
630-20-6	1,1,1,2-Tetrachloroethane	50	47.2	94	70-130
79-34-5	1,1,2,2-Tetrachloroethane	50	46.2	92	70-130
127-18-4	Tetrachloroethene	50	46.3	93	70-130
109-99-9	Tetrahydrofuran	50	47.8	96	70-130
108-88-3	Toluene	50	48.0	96	70-130
110-57-6	Trans-1,4-Dichloro-2-Butene	50	47.1	94	70-130
87-61-6	1,2,3-Trichlorobenzene	50	49.2	98	70-130
120-82-1	1,2,4-Trichlorobenzene	50	50.9	102	70-130
71-55-6	1,1,1-Trichloroethane	50	48.2	96	70-130
79-00-5	1,1,2-Trichloroethane	50	46.5	93	70-130
79-01-6	Trichloroethene	50	47.5	95	70-130
75-69-4	Trichlorofluoromethane	50	41.2	82	70-130
96-18-4	1,2,3-Trichloropropane	50	47.7	95	70-130
95-63-6	1,2,4-Trimethylbenzene	50	45.2	90	70-130
108-67-8	1,3,5-Trimethylbenzene	50	44.9	90	70-130
75-01-4	Vinyl chloride	50	41.7	83	70-130
	m,p-Xylene	100	90.6	91	70-130
95-47-6	o-Xylene	50	44.4	89	70-130

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC27709
Account: CDRMRHCT CDR Maguire
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3129-BS	N83876.D	1	01/20/14	JB	n/a	n/a	MSN3129

The QC reported here applies to the following samples:

Method: SW846 8260C

MC27709-11

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	92%	70-130%
2037-26-5	Toluene-D8	100%	70-130%
460-00-4	4-Bromofluorobenzene	96%	70-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC27709
Account: CDRMRHCT CDR Maguire
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM2200-BS	M62800.D	1	01/21/14	KD	n/a	n/a	MSM2200

The QC reported here applies to the following samples:

Method: SW846 8260C

MC27709-1, MC27709-2, MC27709-3, MC27709-4, MC27709-5, MC27709-6, MC27709-7, MC27709-8, MC27709-9, MC27709-10

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
67-64-1	Acetone	50	64.7	129	70-130
107-13-1	Acrylonitrile	100	111	111	70-130
71-43-2	Benzene	50	55.5	111	70-130
108-86-1	Bromobenzene	50	48.3	97	70-130
75-27-4	Bromodichloromethane	50	53.0	106	70-130
75-25-2	Bromoform	50	46.7	93	70-130
74-83-9	Bromomethane	50	46.0	92	70-130
78-93-3	2-Butanone (MEK)	50	59.4	119	70-130
104-51-8	n-Butylbenzene	50	47.6	95	70-130
135-98-8	sec-Butylbenzene	50	46.2	92	70-130
98-06-6	tert-Butylbenzene	50	44.4	89	70-130
75-15-0	Carbon disulfide	50	58.2	116	70-130
56-23-5	Carbon tetrachloride	50	45.9	92	70-130
108-90-7	Chlorobenzene	50	46.8	94	70-130
75-00-3	Chloroethane	50	62.1	124	70-130
67-66-3	Chloroform	50	54.7	109	70-130
74-87-3	Chloromethane	50	45.7	91	70-130
95-49-8	o-Chlorotoluene	50	45.6	91	70-130
106-43-4	p-Chlorotoluene	50	48.0	96	70-130
96-12-8	1,2-Dibromo-3-chloropropane	50	43.2	86	70-130
124-48-1	Dibromochloromethane	50	46.5	93	70-130
106-93-4	1,2-Dibromoethane	50	50.0	100	70-130
95-50-1	1,2-Dichlorobenzene	50	45.8	92	70-130
541-73-1	1,3-Dichlorobenzene	50	46.0	92	70-130
106-46-7	1,4-Dichlorobenzene	50	47.3	95	70-130
75-71-8	Dichlorodifluoromethane	50	35.2	70	70-130
75-34-3	1,1-Dichloroethane	50	57.7	115	70-130
107-06-2	1,2-Dichloroethane	50	48.6	97	70-130
75-35-4	1,1-Dichloroethene	50	50.7	101	70-130
156-59-2	cis-1,2-Dichloroethene	50	57.5	115	70-130
156-60-5	trans-1,2-Dichloroethene	50	58.4	117	70-130
78-87-5	1,2-Dichloropropane	50	57.9	116	70-130
142-28-9	1,3-Dichloropropane	50	51.1	102	70-130
594-20-7	2,2-Dichloropropane	50	53.3	107	70-130
563-58-6	1,1-Dichloropropene	50	54.1	108	70-130
10061-01-5	cis-1,3-Dichloropropene	50	54.8	110	70-130

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC27709
Account: CDRMRHCT CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM2200-BS	M62800.D	1	01/21/14	KD	n/a	n/a	MSM2200

The QC reported here applies to the following samples:

Method: SW846 8260C

MC27709-1, MC27709-2, MC27709-3, MC27709-4, MC27709-5, MC27709-6, MC27709-7, MC27709-8, MC27709-9, MC27709-10

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
10061-02-6	trans-1,3-Dichloropropene	50	56.4	113	70-130
100-41-4	Ethylbenzene	50	48.6	97	70-130
76-13-1	Freon 113	50	56.3	113	70-130
87-68-3	Hexachlorobutadiene	50	42.7	85	70-130
591-78-6	2-Hexanone	50	44.4	89	70-130
98-82-8	Isopropylbenzene	50	47.8	96	70-130
99-87-6	p-Isopropyltoluene	50	45.7	91	70-130
1634-04-4	Methyl Tert Butyl Ether	50	60.0	120	70-130
108-10-1	4-Methyl-2-pentanone (MIBK)	50	59.3	119	70-130
74-95-3	Methylene bromide	50	53.2	106	70-130
75-09-2	Methylene chloride	50	57.8	116	70-130
91-20-3	Naphthalene	50	52.1	104	70-130
103-65-1	n-Propylbenzene	50	45.1	90	70-130
100-42-5	Styrene	50	50.7	101	70-130
630-20-6	1,1,1,2-Tetrachloroethane	50	45.5	91	70-130
79-34-5	1,1,2,2-Tetrachloroethane	50	54.7	109	70-130
127-18-4	Tetrachloroethene	50	45.3	91	70-130
109-99-9	Tetrahydrofuran	50	64.5	129	70-130
108-88-3	Toluene	50	56.6	113	70-130
110-57-6	Trans-1,4-Dichloro-2-Butene	50	45.2	90	70-130
87-61-6	1,2,3-Trichlorobenzene	50	48.0	96	70-130
120-82-1	1,2,4-Trichlorobenzene	50	47.5	95	70-130
71-55-6	1,1,1-Trichloroethane	50	50.0	100	70-130
79-00-5	1,1,2-Trichloroethane	50	58.7	117	70-130
79-01-6	Trichloroethene	50	53.2	106	70-130
75-69-4	Trichlorofluoromethane	50	44.3	89	70-130
96-18-4	1,2,3-Trichloropropane	50	52.4	105	70-130
95-63-6	1,2,4-Trimethylbenzene	50	46.6	93	70-130
108-67-8	1,3,5-Trimethylbenzene	50	47.1	94	70-130
75-01-4	Vinyl chloride	50	47.2	94	70-130
	m,p-Xylene	100	96.0	96	70-130
95-47-6	o-Xylene	50	47.1	94	70-130

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC27709
Account: CDRMRHCT CDR Maguire
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM2200-BS	M62800.D	1	01/21/14	KD	n/a	n/a	MSM2200

The QC reported here applies to the following samples:

Method: SW846 8260C

MC27709-1, MC27709-2, MC27709-3, MC27709-4, MC27709-5, MC27709-6, MC27709-7, MC27709-8, MC27709-9, MC27709-10

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	86%	70-130%
2037-26-5	Toluene-D8	89%	70-130%
460-00-4	4-Bromofluorobenzene	87%	70-130%

* = Outside of Control Limits.

Volatile Internal Standard Area Summary

Job Number: MC27709
Account: CDRMRHCT CDR Maguire
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT

Check Std: MSM2200-CC2195	Injection Date: 01/21/14
Lab File ID: M62799.D	Injection Time: 09:22
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	317247	9.35	468590	10.23	228566	13.51	307417	16.06	110946	6.85
Upper Limit ^a	634494	9.85	937180	10.73	457132	14.01	614834	16.56	221892	7.35
Lower Limit ^b	158624	8.85	234295	9.73	114283	13.01	153709	15.56	55473	6.35

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSM2200-BS	305688	9.35	460993	10.22	222494	13.50	304596	16.06	114746	6.84
MSM2200-MB	280731	9.35	415475	10.23	185828	13.50	258657	16.06	101777	6.84
ZZZZZZ	265587	9.35	393685	10.23	177778	13.51	244135	16.06	95353	6.85
ZZZZZZ	254299	9.35	365825	10.23	171342	13.50	235737	16.06	94873	6.85
MC27709-1	246019	9.35	356785	10.23	165624	13.51	230868	16.06	135566	6.84
MC27709-2	243451	9.35	344127	10.23	162255	13.50	225948	16.06	126158	6.84
MC27709-3	234752	9.35	338995	10.23	158585	13.51	220903	16.06	131548	6.84
MC27709-4	232045	9.35	323771	10.22	153809	13.51	216134	16.06	126140	6.84
MC27709-5	222689	9.34	324490	10.22	150888	13.50	217703	16.06	145569	6.83
MC27709-6	219163	9.35	316856	10.23	152869	13.50	214552	16.06	135404	6.84
MC27709-7	218513	9.35	315493	10.23	150113	13.50	214619	16.06	146364	6.84
MC27709-8	220117	9.35	307131	10.22	146083	13.51	205385	16.06	148231	6.84
MC27709-9	209965	9.34	304308	10.22	141559	13.50	194884	16.06	134605	6.83
MC27709-10	210637	9.35	307067	10.22	142866	13.50	198787	16.06	144141	6.84
ZZZZZZ	202031	9.35	291495	10.23	137344	13.51	191412	16.06	87042	6.84
ZZZZZZ	204672	9.35	292490	10.23	134793	13.50	186456	16.06	85564	6.84
ZZZZZZ	200341	9.35	286210	10.23	134686	13.50	182295	16.06	81008	6.84
ZZZZZZ	206678	9.35	287730	10.23	135360	13.51	182051	16.06	87595	6.85
ZZZZZZ	202711	9.35	294250	10.23	134441	13.51	186680	16.06	83563	6.84
ZZZZZZ	201151	9.35	294427	10.23	133668	13.51	188018	16.06	83211	6.85
ZZZZZZ	202304	9.35	287140	10.23	133229	13.51	189327	16.06	83687	6.84
ZZZZZZ	199939	9.35	288699	10.23	134784	13.51	191343	16.06	88476	6.84

- 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.

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Volatile Internal Standard Area Summary

Job Number: MC27709
Account: CDRMRHCT CDR Maguire
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT

Check Std: MSN3129-CC3086	Injection Date: 01/20/14
Lab File ID: N83875.D	Injection Time: 09:03
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	228123	9.21	337619	10.08	185099	13.33	155502	15.89	98841	6.77
Upper Limit ^a	456246	9.71	675238	10.58	370198	13.83	311004	16.39	197682	7.27
Lower Limit ^b	114062	8.71	168810	9.58	92550	12.83	77751	15.39	49421	6.27

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSN3129-BS	228360	9.21	340812	10.08	185610	13.33	158713	15.89	97582	6.77
MSN3129-MB	201273	9.21	300856	10.08	162123	13.33	117966	15.89	87746	6.78
ZZZZZZ	205230	9.21	301420	10.09	163268	13.34	119459	15.89	90778	6.78
MC27709-11	196895	9.21	295585	10.08	153576	13.34	116866	15.89	92555	6.78
ZZZZZZ	199445	9.21	300691	10.08	154816	13.34	119407	15.89	98297	6.77
ZZZZZZ	199126	9.21	300321	10.08	155750	13.33	133738	15.89	83198	6.78
ZZZZZZ	203011	9.21	301058	10.08	160555	13.34	117291	15.89	102601	6.77
ZZZZZZ	200935	9.21	297243	10.08	154843	13.33	118316	15.89	89715	6.78
ZZZZZZ	196670	9.21	300655	10.09	151093	13.34	116341	15.89	97198	6.77
ZZZZZZ	182133	9.21	276472	10.09	141628	13.34	106102	15.89	90110	6.78
ZZZZZZ	194514	9.21	291384	10.09	151583	13.34	118283	15.89	85675	6.78
ZZZZZZ	197144	9.21	290271	10.09	156401	13.34	117613	15.89	95622	6.77
ZZZZZZ	198606	9.21	293737	10.08	151545	13.34	116377	15.89	87295	6.78
ZZZZZZ	197077	9.21	289454	10.09	152193	13.34	117969	15.89	83619	6.78
ZZZZZZ	211007	9.21	315074	10.08	160143	13.34	125130	15.89	88042	6.77
ZZZZZZ	203067	9.21	303775	10.09	161280	13.34	136671	15.89	81170	6.78
ZZZZZZ	204112	9.21	298107	10.08	156772	13.34	131820	15.89	78828	6.77
ZZZZZZ	200714	9.21	301678	10.08	163349	13.33	122877	15.89	87212	6.77
ZZZZZZ	204191	9.21	298881	10.08	157957	13.34	127482	15.89	86819	6.77
ZZZZZZ	199817	9.21	300507	10.08	155819	13.34	116871	15.89	93843	6.77
ZZZZZZ	196591	9.21	295411	10.09	153067	13.34	118495	15.89	84618	6.77
ZZZZZZ	199907	9.21	298450	10.08	155871	13.34	137483	15.89	77496	6.77

- 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 Surrogate Recovery Summary

Job Number: MC27709

Account: CDRMRHCT CDR Maguire

Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, 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
MC27709-11	N83881.D	92.0	100.0	106.0
MSN3129-BS	N83876.D	92.0	100.0	96.0
MSN3129-MB	N83879.D	91.0	99.0	104.0

Surrogate Compounds	Recovery Limits
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S1 = Dibromofluoromethane	70-130%
S2 = Toluene-D8	70-130%
S3 = 4-Bromofluorobenzene	70-130%

Volatile Surrogate Recovery Summary

Job Number: MC27709

Account: CDRMRHCT CDR Maguire

Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, 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
MC27709-1	M62806.D	89.0	89.0	87.0
MC27709-2	M62807.D	87.0	88.0	86.0
MC27709-3	M62808.D	91.0	90.0	88.0
MC27709-4	M62809.D	86.0	89.0	88.0
MC27709-5	M62810.D	92.0	88.0	85.0
MC27709-6	M62811.D	90.0	90.0	85.0
MC27709-7	M62812.D	91.0	89.0	85.0
MC27709-8	M62813.D	86.0	88.0	87.0
MC27709-9	M62814.D	89.0	87.0	87.0
MC27709-10	M62815.D	92.0	87.0	86.0
MSM2200-BS	M62800.D	86.0	89.0	87.0
MSM2200-MB	M62803.D	86.0	88.0	86.0

Surrogate Compounds

Recovery Limits

S1 = Dibromofluoromethane

70-130%

S2 = Toluene-D8

70-130%

S3 = 4-Bromofluorobenzene

70-130%

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: MC27709

Account: CDRMRHCT CDR Maguire

Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP36569-MB	W17320.D	1	01/21/14	KR	01/17/14	OP36569	MSW763

The QC reported here applies to the following samples:

Method: SW846 8270D

MC27709-1, MC27709-2, MC27709-3, MC27709-4, MC27709-5, MC27709-6, MC27709-7, MC27709-8, MC27709-9, MC27709-10

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	950	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	950	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	95	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	240	ug/kg	

Method Blank Summary

Job Number: MC27709
Account: CDRMRHCT CDR Maguire
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP36569-MB	W17320.D	1	01/21/14	KR	01/17/14	OP36569	MSW763

The QC reported here applies to the following samples:

Method: SW846 8270D

MC27709-1, MC27709-2, MC27709-3, MC27709-4, MC27709-5, MC27709-6, MC27709-7, MC27709-8, MC27709-9, MC27709-10

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	95	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	68%	30-130%
4165-62-2	Phenol-d5	65%	30-130%
118-79-6	2,4,6-Tribromophenol	65%	30-130%

Method Blank Summary

Job Number: MC27709
Account: CDRMRHCT CDR Maguire
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP36569-MB	W17320.D	1	01/21/14	KR	01/17/14	OP36569	MSW763

The QC reported here applies to the following samples:

Method: SW846 8270D

MC27709-1, MC27709-2, MC27709-3, MC27709-4, MC27709-5, MC27709-6, MC27709-7, MC27709-8, MC27709-9, MC27709-10

CAS No.	Surrogate Recoveries	Limits
4165-60-0	Nitrobenzene-d5	70% 30-130%
321-60-8	2-Fluorobiphenyl	69% 30-130%
1718-51-0	Terphenyl-d14	80% 30-130%

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Blank Spike Summary

Job Number: MC27709
Account: CDRMRHCT CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP36569-BS	W17321.D	1	01/21/14	KR	01/17/14	OP36569	MSW763

The QC reported here applies to the following samples:

Method: SW846 8270D

MC27709-1, MC27709-2, MC27709-3, MC27709-4, MC27709-5, MC27709-6, MC27709-7, MC27709-8, MC27709-9, MC27709-10

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
95-57-8	2-Chlorophenol	2410	1630	68	30-130
59-50-7	4-Chloro-3-methyl phenol	2410	1690	70	30-130
120-83-2	2,4-Dichlorophenol	2410	1640	68	30-130
105-67-9	2,4-Dimethylphenol	2410	1730	72	30-130
51-28-5	2,4-Dinitrophenol	2410	763	32	30-130
534-52-1	4,6-Dinitro-o-cresol	2410	1700	70	30-130
95-48-7	2-Methylphenol	2410	1550	64	30-130
106-44-5	4-Methylphenol	4830	3000	62	30-130
88-75-5	2-Nitrophenol	2410	1670	69	30-130
100-02-7	4-Nitrophenol	2410	1140	47	30-130
87-86-5	Pentachlorophenol	2410	1240	51	30-130
108-95-2	Phenol	2410	1790	74	30-130
95-95-4	2,4,5-Trichlorophenol	2410	1620	67	30-130
88-06-2	2,4,6-Trichlorophenol	2410	1680	70	30-130
83-32-9	Acenaphthene	2410	1850	77	40-140
208-96-8	Acenaphthylene	2410	1530	63	40-140
62-53-3	Aniline	2410	1050	44	40-140
120-12-7	Anthracene	2410	1880	78	40-140
56-55-3	Benzo(a)anthracene	2410	2170	90	40-140
50-32-8	Benzo(a)pyrene	2410	1870	77	40-140
205-99-2	Benzo(b)fluoranthene	2410	2110	87	40-140
191-24-2	Benzo(g,h,i)perylene	2410	1960	81	40-140
207-08-9	Benzo(k)fluoranthene	2410	2050	85	40-140
101-55-3	4-Bromophenyl phenyl ether	2410	2170	90	40-140
85-68-7	Butyl benzyl phthalate	2410	2130	88	40-140
91-58-7	2-Chloronaphthalene	2410	1830	76	40-140
106-47-8	4-Chloroaniline	2410	1350	56	40-140
86-74-8	Carbazole	2410	1850	77	40-140
218-01-9	Chrysene	2410	2080	86	40-140
111-91-1	bis(2-Chloroethoxy)methane	2410	1470	61	40-140
111-44-4	bis(2-Chloroethyl)ether	2410	1890	78	40-140
108-60-1	bis(2-Chloroisopropyl)ether	2410	2270	94	40-140
7005-72-3	4-Chlorophenyl phenyl ether	2410	1980	82	40-140
121-14-2	2,4-Dinitrotoluene	2410	1790	74	40-140
606-20-2	2,6-Dinitrotoluene	2410	1760	73	40-140
91-94-1	3,3'-Dichlorobenzidine	2410	1660	69	40-140

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC27709
Account: CDRMRHCT CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP36569-BS	W17321.D	1	01/21/14	KR	01/17/14	OP36569	MSW763

The QC reported here applies to the following samples: **Method:** SW846 8270D

MC27709-1, MC27709-2, MC27709-3, MC27709-4, MC27709-5, MC27709-6, MC27709-7, MC27709-8, MC27709-9, MC27709-10

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
53-70-3	Dibenzo(a,h)anthracene	2410	2070	86	40-140
132-64-9	Dibenzofuran	2410	1710	71	40-140
84-74-2	Di-n-butyl phthalate	2410	1920	80	40-140
117-84-0	Di-n-octyl phthalate	2410	2240	93	40-140
84-66-2	Diethyl phthalate	2410	1910	79	40-140
131-11-3	Dimethyl phthalate	2410	1920	80	40-140
117-81-7	bis(2-Ethylhexyl)phthalate	2410	2140	89	40-140
206-44-0	Fluoranthene	2410	1940	80	40-140
86-73-7	Fluorene	2410	1800	75	40-140
118-74-1	Hexachlorobenzene	2410	2300	95	40-140
87-68-3	Hexachlorobutadiene	2410	2060	85	40-140
77-47-4	Hexachlorocyclopentadiene	2410	2550	106	40-140
67-72-1	Hexachloroethane	2410	1780	74	40-140
193-39-5	Indeno(1,2,3-cd)pyrene	2410	2030	84	40-140
78-59-1	Isophorone	2410	1950	81	40-140
91-57-6	2-Methylnaphthalene	2410	1650	68	40-140
88-74-4	2-Nitroaniline	2410	1790	74	40-140
99-09-2	3-Nitroaniline	2410	1430	59	40-140
100-01-6	4-Nitroaniline	2410	1530	63	40-140
91-20-3	Naphthalene	2410	2390	99	40-140
98-95-3	Nitrobenzene	2410	1940	80	40-140
621-64-7	N-Nitroso-di-n-propylamine	2410	1910	79	40-140
86-30-6	N-Nitrosodiphenylamine	2410	1720	71	40-140
82-68-8	Pentachloronitrobenzene	2410	2190	91	40-140
85-01-8	Phenanthrene	2410	1950	81	40-140
129-00-0	Pyrene	2410	2130	88	40-140
110-86-1	Pyridine	2410	1530	63	40-140
95-94-3	1,2,4,5-Tetrachlorobenzene	2410	1970	82	40-140
120-82-1	1,2,4-Trichlorobenzene	2410	1950	81	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	70%	30-130%
4165-62-2	Phenol-d5	71%	30-130%
118-79-6	2,4,6-Tribromophenol	76%	30-130%

* = Outside of Control Limits.

7.2.1
7

Blank Spike Summary

Job Number: MC27709
Account: CDRMRHCT CDR Maguire
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP36569-BS	W17321.D	1	01/21/14	KR	01/17/14	OP36569	MSW763

The QC reported here applies to the following samples:

Method: SW846 8270D

MC27709-1, MC27709-2, MC27709-3, MC27709-4, MC27709-5, MC27709-6, MC27709-7, MC27709-8, MC27709-9, MC27709-10

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	75%	30-130%
321-60-8	2-Fluorobiphenyl	74%	30-130%
1718-51-0	Terphenyl-d14	86%	30-130%

* = Outside of Control Limits.

Semivolatiles Internal Standard Area Summary

Job Number: MC27709
Account: CDRMRHCT CDR Maguire
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT

Check Std: MSW763-CC729	Injection Date: 01/21/14
Lab File ID: W17317.D	Injection Time: 08:03
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	66466	3.78	242600	4.83	159447	6.36	273417	7.64	276456	10.14	230886	11.78
Upper Limit ^a	132932	4.28	485200	5.33	318894	6.86	546834	8.14	552912	10.64	461772	12.28
Lower Limit ^b	33233	3.28	121300	4.33	79724	5.86	136709	7.14	138228	9.64	115443	11.28

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
ZZZZZZ	62939	3.78	232325	4.83	150908	6.36	256061	7.64	244046	10.13	204254	11.78
ZZZZZZ	64340	3.78	235790	4.83	156524	6.36	259924	7.64	254491	10.13	214898	11.78
OP36569-MB	63878	3.78	232854	4.83	152928	6.36	253929	7.64	260060	10.13	215082	11.78
OP36569-BS	74216	3.78	263488	4.83	166189	6.36	278591	7.64	266123	10.13	216337	11.78
OP36554-MB	60255	3.78	220126	4.83	143346	6.36	237928	7.64	249683	10.13	214082	11.78
OP36554-BS	57790	3.78	207533	4.83	130271	6.36	224148	7.64	219233	10.13	186206	11.78
OP36554-MS	61946	3.78	218091	4.83	137158	6.36	235055	7.64	236889	10.13	198515	11.78
OP36554-MSD	63901	3.78	226530	4.83	144893	6.36	242653	7.64	245342	10.13	206274	11.78
MC27500-5	63506	3.78	227726	4.83	146531	6.36	241131	7.64	248875	10.13	210852	11.78
ZZZZZZ	62362	3.78	215164	4.83	136364	6.36	225883	7.64	220596	10.13	190254	11.78
ZZZZZZ	63828	3.78	223397	4.83	141854	6.36	238905	7.64	234261	10.13	203532	11.78
OP36569-MS	77214	3.78	264594	4.83	164381	6.36	271002	7.64	246426	10.13	194120	11.78
OP36569-MSD	71136	3.78	251625	4.83	154502	6.36	250292	7.64	221894	10.14	181696	11.79
MC27676-1	74775	3.78	266192	4.83	164752	6.36	271509	7.64	236858	10.13	193923	11.78
ZZZZZZ	72487	3.78	260638	4.83	165401	6.36	267277	7.64	238057	10.13	195281	11.78
ZZZZZZ	72300	3.78	258786	4.83	162976	6.36	265897	7.64	228262	10.13	183909	11.78
ZZZZZZ	75793	3.78	266652	4.83	165891	6.36	268634	7.64	235110	10.13	188242	11.78
ZZZZZZ	74014	3.78	261031	4.83	164047	6.36	267782	7.64	240906	10.13	188692	11.78
ZZZZZZ	77229	3.78	273467	4.83	171443	6.36	277682	7.64	245844	10.13	194994	11.78
MC27709-1	66626	3.78	236457	4.83	149693	6.36	234668	7.64	206142	10.13	168583	11.79
MC27709-2	77446	3.78	272518	4.83	169723	6.36	268428	7.64	231922	10.13	194544	11.78
MC27709-3	68763	3.78	248608	4.83	154117	6.36	248704	7.64	218667	10.13	178436	11.78
MC27709-4	72069	3.78	258766	4.83	161557	6.36	264671	7.64	225502	10.13	184715	11.78
MC27709-5	69488	3.78	248737	4.83	158865	6.36	253045	7.64	232493	10.13	202832	11.79
MC27709-6	67855	3.78	249265	4.83	154422	6.36	257067	7.64	237663	10.13	204336	11.79
MC27709-7	68458	3.78	246336	4.83	155900	6.36	252496	7.64	220211	10.13	184543	11.79
MC27709-8	73435	3.78	258111	4.83	165003	6.36	269456	7.64	250522	10.13	213843	11.78
MC27709-9	70739	3.78	253524	4.83	160057	6.36	252075	7.64	235966	10.13	207592	11.79
MC27709-10	71564	3.78	255913	4.83	161538	6.36	257661	7.64	241046	10.14	215826	11.80

- IS 1 = 1,4-Dichlorobenzene-d4
- IS 2 = Naphthalene-d8
- IS 3 = Acenaphthene-D10
- IS 4 = Phenanthrene-d10
- IS 5 = Chrysene-d12

7.3.1
7

Semivolatile Internal Standard Area Summary

Job Number: MC27709
Account: CDRMRHCT CDR Maguire
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT

Check Std: MSW763-CC729	Injection Date: 01/21/14
Lab File ID: W17317.D	Injection Time: 08:03
Instrument ID: GCMSW	Method: SW846 8270D

Lab	IS 1	IS 2	IS 3	IS 4	IS 5	IS 6						
Sample ID	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT

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

Semivolatile Surrogate Recovery Summary

Job Number: MC27709
Account: CDRMRHCT CDR Maguire
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT

Method: SW846 8270D	Matrix: SO
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
MC27709-1	W17337.D	64.0	63.0	73.0	66.0	70.0	78.0
MC27709-2	W17338.D	66.0	65.0	75.0	74.0	73.0	80.0
MC27709-3	W17339.D	67.0	66.0	71.0	75.0	74.0	76.0
MC27709-4	W17340.D	76.0	75.0	81.0	83.0	83.0	94.0
MC27709-5	W17341.D	50.0	50.0	61.0	58.0	64.0	70.0
MC27709-6	W17342.D	55.0	57.0	71.0	60.0	75.0	88.0
MC27709-7	W17343.D	81.0	79.0	91.0	86.0	88.0	104.0
MC27709-8	W17344.D	53.0	50.0	64.0	60.0	72.0	82.0
MC27709-9	W17345.D	48.0	45.0	58.0	53.0	63.0	67.0
MC27709-10	W17346.D	51.0	58.0	58.0	53.0	62.0	69.0
OP36569-BS	W17321.D	70.0	71.0	76.0	75.0	74.0	86.0
OP36569-MB	W17320.D	68.0	65.0	65.0	70.0	69.0	80.0

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	30-130%
S2 = Phenol-d5	30-130%
S3 = 2,4,6-Tribromophenol	30-130%
S4 = Nitrobenzene-d5	30-130%
S5 = 2-Fluorobiphenyl	30-130%
S6 = Terphenyl-d14	30-130%

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
- DDT/Endrin Breakdown Checks
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC27709
Account: CDRMRHCT CDR Maguire
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP36574-MB	BC659741.D	1	01/23/14	KN	01/17/14	OP36574	GBC3573

The QC reported here applies to the following samples:

Method: CT-ETPH 7/06

MC27709-1, MC27709-2, MC27709-3, MC27709-4, MC27709-5, MC27709-6, MC27709-7, MC27709-8, MC27709-9, MC27709-10

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	78% 50-137%

Method Blank Summary

Job Number: MC27709
Account: CDRMRHCT CDR Maguire
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP36565-MB	BB53965.D	1	01/21/14	CZ	01/17/14	OP36565	GBB3153

The QC reported here applies to the following samples:

Method: SW846 8151

MC27709-1, MC27709-2, MC27709-3, MC27709-4

CAS No.	Compound	Result	RL	Units	Q
94-75-7	2,4-D	ND	19	ug/kg	
93-72-1	2,4,5-TP (Silvex)	ND	19	ug/kg	
93-76-5	2,4,5-T	ND	19	ug/kg	
75-99-0	Dalapon	ND	19	ug/kg	
1918-00-9	Dicamba	ND	19	ug/kg	

CAS No.	Surrogate Recoveries	Limits
19719-28-9	2,4-DCAA	95% 30-150%
19719-28-9	2,4-DCAA	99% 30-150%

Method Blank Summary

Job Number: MC27709
Account: CDRMRHCT CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP36566-MB	BE40170.D	1	01/23/14	NK	01/17/14	OP36566	GBE2076

The QC reported here applies to the following samples:

Method: SW846 8081

MC27709-1, MC27709-2, MC27709-3, MC27709-4

CAS No.	Compound	Result	RL	Units	Q
15972-60-8	Alachlor	ND	66	ug/kg	
309-00-2	Aldrin	ND	6.6	ug/kg	
319-84-6	alpha-BHC	ND	6.6	ug/kg	
319-85-7	beta-BHC	ND	6.6	ug/kg	
319-86-8	delta-BHC	ND	6.6	ug/kg	
58-89-9	gamma-BHC (Lindane)	ND	6.6	ug/kg	
12789-03-6	Chlordane	ND	66	ug/kg	
60-57-1	Dieldrin	ND	6.6	ug/kg	
72-54-8	4,4' -DDD	ND	6.6	ug/kg	
72-55-9	4,4' -DDE	ND	6.6	ug/kg	
50-29-3	4,4' -DDT	ND	6.6	ug/kg	
72-20-8	Endrin	ND	6.6	ug/kg	
1031-07-8	Endosulfan sulfate	ND	6.6	ug/kg	
7421-93-4	Endrin aldehyde	ND	6.6	ug/kg	
959-98-8	Endosulfan-I	ND	6.6	ug/kg	
33213-65-9	Endosulfan-II	ND	6.6	ug/kg	
76-44-8	Heptachlor	ND	6.6	ug/kg	
1024-57-3	Heptachlor epoxide	ND	6.6	ug/kg	
72-43-5	Methoxychlor	ND	6.6	ug/kg	
53494-70-5	Endrin ketone	ND	6.6	ug/kg	
8001-35-2	Toxaphene	ND	66	ug/kg	

CAS No.	Surrogate Recoveries	Limits	
877-09-8	Tetrachloro-m-xylene	88%	30-150%
877-09-8	Tetrachloro-m-xylene	85%	30-150%
2051-24-3	Decachlorobiphenyl	101%	30-150%
2051-24-3	Decachlorobiphenyl	103%	30-150%

8.1.3
8

Method Blank Summary

Job Number: MC27709
Account: CDRMRHCT CDR Maguire
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP36567-MB	BB53928.D	1	01/20/14	CZ	01/17/14	OP36567	GBB3151

The QC reported here applies to the following samples:

Method: SW846 8082

MC27709-1, MC27709-2, MC27709-3, MC27709-4

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	33	ug/kg	
11104-28-2	Aroclor 1221	ND	33	ug/kg	
11141-16-5	Aroclor 1232	ND	33	ug/kg	
53469-21-9	Aroclor 1242	ND	33	ug/kg	
12672-29-6	Aroclor 1248	ND	33	ug/kg	
11097-69-1	Aroclor 1254	ND	33	ug/kg	
11096-82-5	Aroclor 1260	ND	33	ug/kg	
37324-23-5	Aroclor 1262	ND	33	ug/kg	
11100-14-4	Aroclor 1268	ND	33	ug/kg	

CAS No.	Surrogate Recoveries	Results	Limits
877-09-8	Tetrachloro-m-xylene	92%	30-150%
877-09-8	Tetrachloro-m-xylene	91%	30-150%
2051-24-3	Decachlorobiphenyl	78%	30-150%
2051-24-3	Decachlorobiphenyl	87%	30-150%

Blank Spike Summary

Job Number: MC27709
Account: CDRMRHCT CDR Maguire
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP36574-BS	BC659743.D	1	01/23/14	KN	01/17/14	OP36574	GBC3573

The QC reported here applies to the following samples:

Method: CT-ETPH 7/06

MC27709-1, MC27709-2, MC27709-3, MC27709-4, MC27709-5, MC27709-6, MC27709-7, MC27709-8, MC27709-9, MC27709-10

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	CT-ETPH (C9-C36)	46.3	44.0	95	60-120

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	77%	50-137%

8.2.1

8

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC27709
Account: CDRMRHCT CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP36565-BS	BB53966.D	1	01/21/14	CZ	01/17/14	OP36565	GBB3153

The QC reported here applies to the following samples:

Method: SW846 8151

MC27709-1, MC27709-2, MC27709-3, MC27709-4

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
94-75-7	2,4-D	33.1	26.5	80	40-140
93-72-1	2,4,5-TP (Silvex)	33.1	34.4	104	40-140
93-76-5	2,4,5-T	33.1	52.8	159* a	40-140
75-99-0	Dalapon	33.1	23.6	71	40-140
1918-00-9	Dicamba	33.1	35.6	107	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
19719-28-9	2,4-DCAA	105%	30-150%
19719-28-9	2,4-DCAA	106%	30-150%

(a) Outside control limits. Associated samples are non-detect for this compound.

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC27709
Account: CDRMRHCT CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP36566-BS	BE40171.D	1	01/23/14	NK	01/17/14	OP36566	GBE2076

The QC reported here applies to the following samples:

Method: SW846 8081

MC27709-1, MC27709-2, MC27709-3, MC27709-4

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
15972-60-8	Alachlor	133	134	101	40-140
309-00-2	Aldrin	13.3	11.1	84	40-140
319-84-6	alpha-BHC	13.3	9.8	74	40-140
319-85-7	beta-BHC	13.3	11.7	88	40-140
319-86-8	delta-BHC	13.3	7.8	59	40-140
58-89-9	gamma-BHC (Lindane)	13.3	10.0	75	40-140
60-57-1	Dieldrin	13.3	12.3	93	40-140
72-54-8	4,4'-DDD	13.3	14.3	108	40-140
72-55-9	4,4'-DDE	13.3	12.5	94	40-140
50-29-3	4,4'-DDT	13.3	13.3	100	40-140
72-20-8	Endrin	13.3	13.3	100	40-140
1031-07-8	Endosulfan sulfate	13.3	11.9	90	40-140
7421-93-4	Endrin aldehyde	13.3	12.3	93	40-140
959-98-8	Endosulfan-I	13.3	12.3	93	40-140
33213-65-9	Endosulfan-II	13.3	12.8	97	40-140
76-44-8	Heptachlor	13.3	12.7	96	40-140
1024-57-3	Heptachlor epoxide	13.3	12.8	97	40-140
72-43-5	Methoxychlor	13.3	14.1	106	40-140
53494-70-5	Endrin ketone	13.3	13.7	103	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	86%	30-150%
877-09-8	Tetrachloro-m-xylene	83%	30-150%
2051-24-3	Decachlorobiphenyl	95%	30-150%
2051-24-3	Decachlorobiphenyl	96%	30-150%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC27709
Account: CDRMRHCT CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP36567-BS	BB53929.D	1	01/20/14	CZ	01/17/14	OP36567	GBB3151
OP36567-BSD	BB53930.D	1	01/20/14	CZ	01/17/14	OP36567	GBB3151

The QC reported here applies to the following samples: **Method:** SW846 8082

MC27709-1, MC27709-2, MC27709-3, MC27709-4

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	264	262	99	212	82	21	40-140/30
11104-28-2	Aroclor 1221		ND		ND		nc	40-140/30
11141-16-5	Aroclor 1232		ND		ND		nc	40-140/30
53469-21-9	Aroclor 1242		ND		ND		nc	40-140/30
12672-29-6	Aroclor 1248		ND		ND		nc	40-140/30
11097-69-1	Aroclor 1254		ND		ND		nc	40-140/30
11096-82-5	Aroclor 1260	264	245	93	197	76	22	40-140/30
37324-23-5	Aroclor 1262		ND		ND		nc	40-140/30
11100-14-4	Aroclor 1268		ND		ND		nc	40-140/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
877-09-8	Tetrachloro-m-xylene	91%	80%	30-150%
877-09-8	Tetrachloro-m-xylene	92%	77%	30-150%
2051-24-3	Decachlorobiphenyl	83%	73%	30-150%
2051-24-3	Decachlorobiphenyl	90%	77%	30-150%

* = Outside of Control Limits.

DDT/Endrin Breakdown Check

Job Number: MC27709
Account: CDRMRHCT CDR Maguire
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT

Sample: GBE2076-DDT	Injection Date: 01/23/14
Lab File ID: BE40159.D	Injection Time: 09:07
Instrument ID: GCBE	

Compound	Response Signal 1	Response Signal 2
4,4'-DDD	10095154	7606886
4,4'-DDE	7541761	6215396
4,4'-DDT	1066932017	614181592

DDT Breakdown ^a	1.6 %	2.2 %
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Endrin aldehyde	3105624	3029616
Endrin ketone	12364848	8883729
Endrin	722996236	428999909

Endrin Breakdown ^b	2.1 %	2.7 %
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(a) Calculated as: (DDD + DDE) / (DDD + DDE + DDT) x 100

(b) Calculated as: (Endrin Aldehyde + Endrin Ketone) / (Endrin Aldehyde + Endrin Ketone + Endrin) x 100

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
GBE2076-IC2076	BE40160.D	01/23/14	09:29	00:22	Initial cal 250
GBE2076-ICC2076	BE40161.D	01/23/14	09:52	00:45	Initial cal 100
GBE2076-IC2076	BE40162.D	01/23/14	10:37	01:30	Initial cal 1000
GBE2076-IC2076	BE40163.D	01/23/14	10:59	01:52	Initial cal 500
GBE2076-IC2076	BE40164.D	01/23/14	11:21	02:14	Initial cal 500
GBE2076-IC2076	BE40165.D	01/23/14	11:43	02:36	Initial cal 50
GBE2076-IC2076	BE40166.D	01/23/14	12:05	02:58	Initial cal 10
GBE2076-IC2076	BE40167.D	01/23/14	12:27	03:20	Initial cal 5
GBE2076-ICV2076	BE40169.D	01/23/14	13:11	04:04	Initial cal verification 100
OP36566-MB	BE40170.D	01/23/14	13:33	04:26	Method Blank
OP36566-BS	BE40171.D	01/23/14	13:55	04:48	Blank Spike
MC27676-1	BE40172.D	01/23/14	14:17	05:10	(used for QC only; not part of job MC27709)
ZZZZZZ	BE40173.D	01/23/14	14:39	05:32	(unrelated sample)
ZZZZZZ	BE40174.D	01/23/14	15:01	05:54	(unrelated sample)
ZZZZZZ	BE40175.D	01/23/14	15:23	06:16	(unrelated sample)
ZZZZZZ	BE40176.D	01/23/14	15:45	06:38	(unrelated sample)
ZZZZZZ	BE40177.D	01/23/14	16:07	07:00	(unrelated sample)
OP36618-LB	BE40178A.D	01/23/14	16:29	07:22	Leachate Blank
OP36618-MB	BE40178.D	01/23/14	16:29	07:22	Method Blank
OP36618-BS	BE40179.D	01/23/14	16:51	07:43	Blank Spike
GBE2076-CC2076	BE40180.D	01/23/14	17:13	08:05	Continuing cal 250

8.4.1
8

DDT/Endrin Breakdown Check

Job Number: MC27709
Account: CDRMRHCT CDR Maguire
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT

Sample: GYZ7478-DDT	Injection Date: 01/24/14
Lab File ID: YZ87739.D	Injection Time: 09:16
Instrument ID: GCYZ	

Compound	Response Signal 1	Response Signal 2
4,4'-DDD	77288	124953
4,4'-DDE	121969	208370
4,4'-DDT	30273125	56386599

DDT Breakdown ^a	0.7 %	0.6 %
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Endrin aldehyde	107513	170495
Endrin ketone	247512	461172
Endrin	18457236	31631186

Endrin Breakdown ^b	1.9 %	2 %
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(a) Calculated as: $(DDD + DDE) / (DDD + DDE + DDT) \times 100$

(b) Calculated as: $(\text{Endrin Aldehyde} + \text{Endrin Ketone}) / (\text{Endrin Aldehyde} + \text{Endrin Ketone} + \text{Endrin}) \times 100$

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
GYZ7478-IC7478	YZ87741.D	01/24/14	10:11	00:55	Initial cal 500
GYZ7478-IC7478	YZ87742.D	01/24/14	10:30	01:14	Initial cal 250
GYZ7478-ICC7478	YZ87743.D	01/24/14	10:48	01:32	Initial cal 100
GYZ7478-IC7478	YZ87744.D	01/24/14	11:07	01:51	Initial cal 50
GYZ7478-IC7478	YZ87745.D	01/24/14	11:25	02:09	Initial cal 10
GYZ7478-IC7478	YZ87746.D	01/24/14	11:44	02:28	Initial cal 5
GYZ7478-IC7478	YZ87747.D	01/24/14	12:02	02:46	Initial cal 1000
GYZ7478-IC7478	YZ87748.D	01/24/14	12:24	03:08	Initial cal 500
GYZ7478-IC7478	YZ87749.D	01/24/14	13:03	03:47	Initial cal 500
GYZ7478-ICV7478	YZ87750.D	01/24/14	13:21	04:05	Initial cal verification 100
OP36601-MB	YZ87754.D	01/24/14	14:35	05:19	Method Blank
OP36601-BS	YZ87755.D	01/24/14	14:53	05:37	Blank Spike
ZZZZZ	YZ87756.D	01/24/14	15:23	06:07	(unrelated sample)
MC27709-1	YZ87757.D	01/24/14	15:42	06:26	SED-1
MC27709-2	YZ87758.D	01/24/14	16:00	06:44	SED-2
MC27709-3	YZ87759.D	01/24/14	16:18	07:02	SED-3
MC27709-4	YZ87760.D	01/24/14	16:37	07:21	SED-4
GYZ7478-CC7478	YZ87761.D	01/24/14	16:55	07:39	Continuing cal 100

8.4.2
8

Semivolatile Surrogate Recovery Summary

Job Number: MC27709

Account: CDRMRHCT CDR Maguire

Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT

Method: SW846 8151

Matrix: SO

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 ^a	S1 ^b
MC27709-1	BB53976.D	110.0	115.0
MC27709-2	BB53977.D	103.0	114.0
MC27709-3	BB53978.D	85.0	94.0
MC27709-4	BB53979.D	97.0	109.0
OP36565-BS	BB53966.D	105.0	106.0
OP36565-MB	BB53965.D	95.0	99.0

Surrogate Compounds

Recovery Limits

S1 = 2,4-DCAA

30-150%

(a) Recovery from GC signal #2

(b) Recovery from GC signal #1

8.5.1

8

Semivolatile Surrogate Recovery Summary

Job Number: MC27709
Account: CDRMRHCT CDR Maguire
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT

Method: SW846 8081	Matrix: SO
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 ^a	S1 ^b	S2 ^a	S2 ^b
MC27709-1	YZ87757.D	74.0	68.0	114.0	78.0
MC27709-2	YZ87758.D	83.0	80.0	89.0	72.0
MC27709-3	YZ87759.D	74.0	70.0	79.0	68.0
MC27709-4	YZ87760.D	91.0	96.0	98.0	87.0
OP36566-BS	BE40171.D	86.0	83.0	95.0	96.0
OP36566-MB	BE40170.D	88.0	85.0	101.0	103.0

Surrogate Compounds	Recovery Limits
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S1 = Tetrachloro-m-xylene	30-150%
S2 = Decachlorobiphenyl	30-150%

- (a) Recovery from GC signal #1
- (b) Recovery from GC signal #2

8.5.2
8

Semivolatile Surrogate Recovery Summary

Job Number: MC27709
Account: CDRMRHCT CDR Maguire
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT

Method: SW846 8082	Matrix: SO
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 ^a	S1 ^b	S2 ^a	S2 ^b
MC27709-1	BK34135.D	87.0	77.0	85.0	85.0
MC27709-2	BK34136.D	104.0	90.0	97.0	98.0
MC27709-3	BK34137.D	93.0	95.0	106.0	106.0
MC27709-4	BK34138.D	101.0	93.0	100.0	99.0
OP36567-BS	BB53929.D	91.0	92.0	83.0	90.0
OP36567-BSD	BB53930.D	80.0	77.0	73.0	77.0
OP36567-MB	BB53928.D	92.0	91.0	78.0	87.0

Surrogate Compounds **Recovery Limits**

S1 = Tetrachloro-m-xylene 30-150%
S2 = Decachlorobiphenyl 30-150%

(a) Recovery from GC signal #1
(b) Recovery from GC signal #2

8.5.3
8

Semivolatile Surrogate Recovery Summary

Job Number: MC27709
Account: CDRMRHCT CDR Maguire
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, 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
MC27709-1	BC659755.D	68.0
MC27709-2	BC659751.D	76.0
MC27709-3	BC659747.D	63.0
MC27709-4	BC659749.D	67.0
MC27709-5	BC659765.D	67.0
MC27709-6	BC659767.D	67.0
MC27709-7	BC659745.D	64.0
MC27709-8	BC659753.D	69.0
MC27709-9	BC659757.D	61.0
MC27709-10	BC659759.D	62.0
OP36574-BS	BC659743.D	77.0
OP36574-MB	BC659741.D	78.0

Surrogate Compounds **Recovery Limits**

S1 = o-Terphenyl 50-137%

(a) Recovery from GC signal #1

8.5.4
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: MC27709
Account: CDRMRHCT - CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22392
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date: 01/20/14

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.033	.0029	.0097	-0.0045	<0.033

Associated samples MP22392: MC27709-1, MC27709-2, MC27709-3, MC27709-4, MC27709-5, MC27709-6, MC27709-7, MC27709-8, MC27709-9, MC27709-10

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: MC27709
 Account: CDRMRHCT - CDR Maguire
 Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22392
 Matrix Type: SOLID

Methods: SW846 7471B
 Units: mg/kg

Prep Date: 01/20/14

Metal	MC27709-10 Original MS	SpikeLot HGRWS1	% Rec	QC Limits
Mercury	0.0079	0.57	0.533	105.4 80-120

Associated samples MP22392: MC27709-1, MC27709-2, MC27709-3, MC27709-4, MC27709-5, MC27709-6, MC27709-7, MC27709-8, MC27709-9, MC27709-10

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: MC27709
 Account: CDRMRHCT - CDR Maguire
 Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22392
 Matrix Type: SOLID

Methods: SW846 7471B
 Units: mg/kg

Prep Date: 01/20/14

Metal	MC27709-10 Original MSD	Spike HGRWSI	lot % Rec	MSD RPD	QC Limit
Mercury	0.0079	0.58	0.533	107.2	1.7 20

Associated samples MP22392: MC27709-1, MC27709-2, MC27709-3, MC27709-4, MC27709-5, MC27709-6, MC27709-7, MC27709-8, MC27709-9, MC27709-10

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: MC27709
 Account: CDRMRHCT - CDR Maguire
 Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22392
 Matrix Type: SOLID

Methods: SW846 7471B
 Units: mg/kg

Prep Date: 01/20/14 01/20/14

Metal	BSP Result	Spikelot HGRWS1	% Rec	QC Limits	BSD Result	Spikelot HGRWS1	% Rec	BSD RPD	QC Limit
Mercury	0.51	0.5	102.0	80-120	0.49	0.5	98.0	4.0	20

Associated samples MP22392: MC27709-1, MC27709-2, MC27709-3, MC27709-4, MC27709-5, MC27709-6, MC27709-7, MC27709-8, MC27709-9, MC27709-10

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: MC27709
Account: CDRMRHCT - CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22392
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date: 01/20/14

Metal	LCS Result	Spikelot HGLCS78	% Rec	QC Limits
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Mercury 4.1 4.05 101.2 72-128

Associated samples MP22392: MC27709-1, MC27709-2, MC27709-3, MC27709-4, MC27709-5, MC27709-6, MC27709-7, MC27709-8, MC27709-9, MC27709-10

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC27709
Account: CDRMRHCT - CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22393
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date: 01/20/14

Metal	RL	IDL	MDL	MB raw	final
Aluminum	20	.61	3.6		
Antimony	1.0	.11	.15		
Arsenic	1.0	.22	.21	0.010	<1.0
Barium	5.0	.019	.073	0.040	<5.0
Beryllium	0.40	.008	.024		
Boron	10	.081	.11		
Cadmium	0.40	.022	.042	0.0	<0.40
Calcium	500	.85	6.3		
Chromium	1.0	.074	.095	-0.030	<1.0
Cobalt	5.0	.028	.047		
Copper	2.5	.086	.56		
Gold	5.0	.18	.43		
Iron	10	.44	.87		
Lead	1.0	.16	.17	0.0	<1.0
Magnesium	500	4.3	5.1		
Manganese	1.5	.017	.04		
Molybdenum	10	.04	.07		
Nickel	4.0	.045	.044		
Palladium	5.0	.2	.64		
Platinum	5.0	.87	1.5		
Potassium	500	2.4	8.6		
Selenium	1.0	.14	.35	0.18	<1.0
Silicon	10	.21	3.3		
Silver	0.50	.047	.13	0.0	<0.50
Sodium	500	4.2	3.3		
Sulfur	5.0	.29	.82		
Strontium	1.0	.01	.03		
Thallium	1.0	.17	.13		
Tin	10	.15	.14		
Titanium	5.0	.048	.14		
Tungsten	10	.93	.94		
Vanadium	1.0	.09	.13		
Zinc	2.0	.091	.16		

9.2.1
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BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC27709
Account: CDRMRHCT - CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22393
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date:

Metal

Zirconium 5.0 .076 .088

Associated samples MP22393: MC27709-1, MC27709-2, MC27709-3, MC27709-4, MC27709-5, MC27709-6, MC27709-7, MC27709-8, MC27709-9, MC27709-10

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: MC27709
 Account: CDRMRHCT - CDR Maguire
 Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22393
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date: 01/20/14 01/20/14

Metal	BSP Result	Spikelot MPICP	% Rec	QC Limits	BSD Result	Spikelot MPICP	% Rec	BSD RPD	QC Limit
Aluminum									
Antimony									
Arsenic	54.7	50	109.4	80-120	54.5	50	109.0	0.4	20
Barium	210	200	105.0	80-120	209	200	104.5	0.5	20
Beryllium									
Boron									
Cadmium	52.1	50	104.2	80-120	52.1	50	104.2	0.0	20
Calcium									
Chromium	50.0	50	100.0	80-120	49.8	50	99.6	0.4	20
Cobalt									
Copper									
Gold									
Iron									
Lead	101	100	101.0	80-120	101	100	101.0	0.0	20
Magnesium									
Manganese									
Molybdenum									
Nickel									
Palladium									
Platinum									
Potassium									
Selenium	50.7	50	101.4	80-120	50.4	50	100.8	0.6	20
Silicon									
Silver	20.4	20	102.0	80-120	20.4	20	102.0	0.0	20
Sodium									
Sulfur									
Strontium									
Thallium									
Tin									
Titanium									
Tungsten									
Vanadium									
Zinc									

9.2.2
9

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC27709
Account: CDRMRHCT - CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22393
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date:

Metal

Zirconium

Associated samples MP22393: MC27709-1, MC27709-2, MC27709-3, MC27709-4, MC27709-5, MC27709-6, MC27709-7, MC27709-8, MC27709-9, MC27709-10

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: MC27709
 Account: CDRMRHCT - CDR Maguire
 Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22393
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date: 01/20/14

Metal	LCS Result	Spikelot MPLCS78	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	92.3	94.5	97.7	82-117
Barium	155	166	93.4	83-116
Beryllium				
Boron				
Cadmium	60.2	59.9	100.5	84-116
Calcium				
Chromium	63.2	69.3	91.2	81-119
Cobalt				
Copper				
Gold				
Iron				
Lead	87.4	91.7	95.3	82-118
Magnesium				
Manganese				
Molybdenum				
Nickel				
Palladium				
Platinum				
Potassium				
Selenium	156	159	98.1	79-121
Silicon				
Silver	34.0	33.9	100.3	66-134
Sodium				
Sulfur				
Strontium				
Thallium				
Tin				
Titanium				
Tungsten				
Vanadium				
Zinc				

9.2.2
9

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC27709
Account: CDRMRHCT - CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22393
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date:

Metal

Zirconium

Associated samples MP22393: MC27709-1, MC27709-2, MC27709-3, MC27709-4, MC27709-5, MC27709-6, MC27709-7, MC27709-8, MC27709-9, MC27709-10

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: MC27709
 Account: CDRMRHCT - CDR Maguire
 Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22393
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: ug/l

Prep Date: 01/20/14

Metal	MC27721-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	51.5	58.0	12.6 (a)	0-10
Barium	488	519	6.5	0-10
Beryllium				
Boron				
Cadmium	2.20	1.70	22.7 (a)	0-10
Calcium				
Chromium	101	106	5.3	0-10
Cobalt				
Copper				
Gold				
Iron				
Lead	561	600	6.9	0-10
Magnesium				
Manganese				
Molybdenum				
Nickel				
Palladium				
Platinum				
Potassium				
Selenium	4.10	11.1	170.7(a)	0-10
Silicon				
Silver	0.00	0.00	NC	0-10
Sodium				
Sulfur				
Strontium				
Thallium				
Tin				
Titanium				
Tungsten				
Vanadium				
Zinc				

9.2.3
9

SERIAL DILUTION RESULTS SUMMARY

Login Number: MC27709
Account: CDRMRHCT - CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22393
Matrix Type: SOLID

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

Zirconium

Associated samples MP22393: MC27709-1, MC27709-2, MC27709-3, MC27709-4, MC27709-5, MC27709-6, MC27709-7, MC27709-8, MC27709-9, MC27709-10

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).

9.2.3

9

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC27709
Account: CDRMRHCT - CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22395
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date: 01/21/14

Metal	RL	IDL	MDL	MB raw	final
Aluminum	0.20	.0061	.04		
Antimony	0.0060	.0011	.0019		
Arsenic	0.010	.0022	.0029	0.00020	<0.010
Barium	0.50	.00019	.00081	0.0	<0.50
Beryllium	0.0040	.00008	.00025		
Boron	0.10	.00081	.0014		
Cadmium	0.0040	.00022	.0005	-0.00010	<0.0040
Calcium	5.0	.0085	.038		
Chromium	0.010	.00074	.0014	-0.00040	<0.010
Cobalt	0.050	.00028	.0004		
Copper	0.025	.00086	.007		
Gold	0.050	.0018	.005		
Iron	0.10	.0044	.02		
Lead	0.010	.0016	.0017	0.00010	<0.010
Magnesium	5.0	.043	.059		
Manganese	0.015	.00017	.00081		
Molybdenum	0.10	.0004	.00077		
Nickel	0.040	.00045	.00057		
Palladium	0.050	.002	.0076		
Platinum	0.050	.0087	.014		
Potassium	5.0	.024	.16		
Selenium	0.025	.0014	.0048	0.0012	<0.025
Silicon	0.10	.0021	.045		
Silver	0.0050	.00047	.001	-0.00040	<0.0050
Sodium	5.0	.042	.06		
Sulfur	0.050	.0029	.008		
Strontium	0.010	.0001	.00026		
Thallium	0.0050	.0017	.0019		
Tin	0.10	.0015	.0014		
Titanium	0.050	.00048	.0018		
Tungsten	0.10	.0093	.016		
Vanadium	0.010	.0009	.0028		
Zinc	0.10	.00091	.0005		

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC27709
Account: CDRMRHCT - CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22395
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date:

Metal

Zirconium	0.050	.00076	.0022
-----------	-------	--------	-------

Associated samples MP22395: MC27709-1A, MC27709-2A, MC27709-3A, MC27709-4A, MC27709-5A, MC27709-6A, MC27709-7A, MC27709-8A, MC27709-9A, MC27709-10A

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: MC27709
 Account: CDRMRHCT - CDR Maguire
 Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22395
 Matrix Type: LEACHATE

Methods: SW846 6010C
 Units: mg/l

Prep Date: 01/21/14

Metal	MC27709-1A Original MS		Spike MPICP	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic	0.0	0.52	0.50	104.0	75-125
Barium	0.10	2.0	2.0	95.0	75-125
Beryllium					
Boron					
Cadmium	0.0	0.50	0.50	100.0	75-125
Calcium					
Chromium	0.0051	0.48	0.50	95.0	75-125
Cobalt					
Copper					
Gold					
Iron					
Lead	0.042	1.0	1.0	95.8	75-125
Magnesium					
Manganese					
Molybdenum					
Nickel					
Palladium					
Platinum					
Potassium					
Selenium	0.0	0.49	0.50	98.0	75-125
Silicon					
Silver	0.0	0.20	0.20	100.0	75-125
Sodium					
Sulfur					
Strontium					
Thallium					
Tin					
Titanium					
Tungsten					
Vanadium					
Zinc					

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9

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC27709
Account: CDRMRHCT - CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22395
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date:

Metal

Zirconium

Associated samples MP22395: MC27709-1A, MC27709-2A, MC27709-3A, MC27709-4A, MC27709-5A, MC27709-6A, MC27709-7A, MC27709-8A, MC27709-9A, MC27709-10A

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: MC27709
 Account: CDRMRHCT - CDR Maguire
 Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22395
 Matrix Type: LEACHATE

Methods: SW846 6010C
 Units: mg/l

Prep Date: 01/21/14

Metal	MC27709-1A Original MSD		SpikeLot MPICP	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	0.0	0.53	0.50	106.0	1.9	20
Barium	0.10	2.1	2.0	100.0	4.9	20
Beryllium						
Boron						
Cadmium	0.0	0.51	0.50	102.0	2.0	20
Calcium						
Chromium	0.0051	0.48	0.50	95.0	0.0	20
Cobalt						
Copper						
Gold						
Iron						
Lead	0.042	1.0	1.0	95.8	0.0	20
Magnesium						
Manganese						
Molybdenum						
Nickel						
Palladium						
Platinum						
Potassium						
Selenium	0.0	0.50	0.50	100.0	2.0	20
Silicon						
Silver	0.0	0.20	0.20	100.0	0.0	20
Sodium						
Sulfur						
Strontium						
Thallium						
Tin						
Titanium						
Tungsten						
Vanadium						
Zinc						

9.3.2
9

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC27709
Account: CDRMRHCT - CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22395
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date:

Metal

Zirconium

Associated samples MP22395: MC27709-1A, MC27709-2A, MC27709-3A, MC27709-4A, MC27709-5A, MC27709-6A, MC27709-7A, MC27709-8A, MC27709-9A, MC27709-10A

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: MC27709
 Account: CDRMRHCT - CDR Maguire
 Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22395
 Matrix Type: LEACHATE

Methods: SW846 6010C
 Units: mg/l

Prep Date: 01/21/14 01/21/14

Metal	BSP Result	Spikelot MPICP	% Rec	QC Limits	BSD Result	Spikelot MPICP	% Rec	BSD RPD	QC Limit
Aluminum									
Antimony									
Arsenic	0.52	0.50	104.0	80-120	0.52	0.50	104.0	0.0	20
Barium	2.0	2.0	100.0	80-120	2.0	2.0	100.0	0.0	20
Beryllium									
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	0.98	1.0	98.0	80-120	0.98	1.0	98.0	0.0	20
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	0.20	0.20	100.0	80-120	0.19	0.20	95.0	5.1	20
Sodium									
Sulfur									
Strontium									
Thallium									
Tin									
Titanium									
Tungsten									
Vanadium									
Zinc									

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SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC27709
Account: CDRMRHCT - CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22395
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date:

Metal

Zirconium

Associated samples MP22395: MC27709-1A, MC27709-2A, MC27709-3A, MC27709-4A, MC27709-5A, MC27709-6A, MC27709-7A, MC27709-8A, MC27709-9A, MC27709-10A

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: MC27709
 Account: CDRMRHCT - CDR Maguire
 Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22395
 Matrix Type: LEACHATE

Methods: SW846 6010C
 Units: ug/l

Prep Date: 01/21/14

Metal	MC27709-1A Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	0.00	0.00	NC	0-10
Barium	103	104	1.0	0-10
Beryllium				
Boron				
Cadmium	0.00	0.00	NC	0-10
Calcium				
Chromium	5.10	0.00	100.0(a)	0-10
Cobalt				
Copper				
Gold				
Iron				
Lead	42.0	45.4	8.1	0-10
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				
Vanadium				
Zinc				

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SERIAL DILUTION RESULTS SUMMARY

Login Number: MC27709
Account: CDRMRHCT - CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22395
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

Zirconium

Associated samples MP22395: MC27709-1A, MC27709-2A, MC27709-3A, MC27709-4A, MC27709-5A, MC27709-6A, MC27709-7A, MC27709-8A, MC27709-9A, MC27709-10A

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: MC27709
Account: CDRMRHCT - CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22406
Matrix Type: LEACHATE

Methods: SW846 7470A
Units: mg/l

Prep Date: 01/21/14

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.00020	.000018	.000067	0.000023	<0.00020

Associated samples MP22406: MC27709-1A, MC27709-2A, MC27709-3A, MC27709-4A, MC27709-5A, MC27709-6A, MC27709-7A, MC27709-8A, MC27709-9A, MC27709-10A

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: MC27709
 Account: CDRMRHCT - CDR Maguire
 Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22406
 Matrix Type: LEACHATE

Methods: SW846 7470A
 Units: mg/l

Prep Date: 01/21/14

Metal	MC27709-1A Original MS	SpikeLot HGRWS1	% Rec	QC Limits
Mercury	0.0	0.0030	100.0	75-125

Associated samples MP22406: MC27709-1A, MC27709-2A, MC27709-3A, MC27709-4A, MC27709-5A, MC27709-6A, MC27709-7A, MC27709-8A, MC27709-9A, MC27709-10A

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: MC27709
 Account: CDRMRHCT - CDR Maguire
 Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22406 Methods: SW846 7470A
 Matrix Type: LEACHATE Units: mg/l

Prep Date: 01/21/14

Metal	MC27709-1A Original MSD	SpikeLot HGRWS1	% Rec	MSD RPD	QC Limit
Mercury	0.0	0.0031	0.0030	103.3	3.3

Associated samples MP22406: MC27709-1A, MC27709-2A, MC27709-3A, MC27709-4A, MC27709-5A, MC27709-6A, MC27709-7A, MC27709-8A, MC27709-9A, MC27709-10A

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: MC27709
 Account: CDRMRHCT - CDR Maguire
 Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22406
 Matrix Type: LEACHATE

Methods: SW846 7470A
 Units: mg/l

Prep Date: 01/21/14 01/21/14

Metal	BSP Result	Spikelot HGRWS1	% Rec	QC Limits	BSD Result	Spikelot HGRWS1	% Rec	BSD RPD	QC Limit
Mercury	0.0031	0.0030	103.3	80-120	0.0031	0.0030	103.3	0.0	

Associated samples MP22406: MC27709-1A, MC27709-2A, MC27709-3A, MC27709-4A, MC27709-5A, MC27709-6A, MC27709-7A, MC27709-8A, MC27709-9A, MC27709-10A

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

Technical Report for

CDR Maguire

Bridge No. 1127-Rte 80 Over Farm River North Branford, CT

98-101

Accutest Job Number: MC27756

Sampling Date: 01/17/14

Report to:

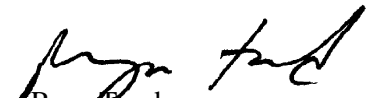
CDR Maguire
2080 Silas Deane Highway
Rocky Hill, CT 06067
jane.witherell@cdrmaguire.com

ATTN: Jane Witherell

Total number of pages in report: **215**



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.



Reza Pand
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)

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Test results relate only to samples analyzed.

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Sample Summary

CDR Maguire

Job No: MC27756

Bridge No. 1127-Rte 80 Over Farm River North Branford, CT
Project No: 98-101

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
MC27756-1	01/17/14	00:00 CK	01/17/14	SO	Soil	GP-1 1'-3'
MC27756-1A	01/17/14	00:00 CK	01/17/14	SO	Soil	GP-1 1'-3'
MC27756-2	01/17/14	00:00 CK	01/17/14	SO	Soil	GP-2 1'-3'
MC27756-2A	01/17/14	00:00 CK	01/17/14	SO	Soil	GP-2 1'-3'
MC27756-3	01/17/14	00:00 CK	01/17/14	SO	Soil	GP-3 4'-8'
MC27756-3A	01/17/14	00:00 CK	01/17/14	SO	Soil	GP-3 4'-8'
MC27756-4	01/17/14	00:00 CK	01/17/14	SO	Soil	GP-6 2'-4'
MC27756-4A	01/17/14	00:00 CK	01/17/14	SO	Soil	GP-6 2'-4'
MC27756-5	01/17/14	00:00 CK	01/17/14	SO	Soil	GP-7 1'-3'
MC27756-5A	01/17/14	00:00 CK	01/17/14	SO	Soil	GP-7 1'-3'
MC27756-6	01/17/14	00:00 CK	01/17/14	SO	Soil	GP-8 1'-3'
MC27756-6A	01/17/14	00:00 CK	01/17/14	SO	Soil	GP-8 1'-3'
MC27756-7	01/17/14	00:00 CK	01/17/14	SO	Soil	GP-9 1'-3'

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



Sample Summary

(continued)

CDR Maguire

Job No: MC27756

Bridge No. 1127-Rte 80 Over Farm River North Branford, CT
 Project No: 98-101

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
MC27756-7A	01/17/14	00:00 CK	01/17/14	SO	Soil	GP-9 1'-3'
MC27756-8	01/17/14	00:00 CK	01/17/14	SO	Soil	GP-10 1'-3'
MC27756-8A	01/17/14	00:00 CK	01/17/14	SO	Soil	GP-10 1'-3'
MC27756-9	01/17/14	00:00 CK	01/17/14	SO	Soil	GP-11 2'-4'
MC27756-9A	01/17/14	00:00 CK	01/17/14	SO	Soil	GP-11 2'-4'
MC27756-10	01/17/14	00:00 CK	01/17/14	SO	Soil	GP-12 2'-4'
MC27756-10A	01/17/14	00:00 CK	01/17/14	SO	Soil	GP-12 2'-4'
MC27756-11	01/17/14	00:00 CK	01/17/14	SO	Soil	GP-15 1'-3'
MC27756-11A	01/17/14	00:00 CK	01/17/14	SO	Soil	GP-15 1'-3'
MC27756-12	01/17/14	00:00 CK	01/17/14	SO	Soil	GP-16 1'-3'
MC27756-12A	01/17/14	00:00 CK	01/17/14	SO	Soil	GP-16 1'-3'

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



SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: CDR Maguire

Job No MC27756

Site: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

Report Date 1/27/2014 3:17:28 PM

12 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were collected on 01/17/2014 and were received at Accutest on 01/17/2014 properly preserved, at 0.7 Deg. C and intact. These Samples received an Accutest job number of MC27756. 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: MSM2203
-------------------	--------------------------

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- MSM2203-BS for Chloroethane are outside control limits. Blank Spike meets program technical requirements.
- Continuing calibration check standard MSM2203-CC2195 for chloroethane, 2-hexanone exceed 20% Difference. This check standard met RCP criteria.
- Quadratic regression is employed for initial calibration standard MSM2195-ICC2195 for 2-hexanone.
- Continuing calibration check standard MSR1352-CC1262 for 2,4-Dinitrophenol exceed 20% Difference. This check standard met RCP criteria.

Extractables by GCMS By Method SW846 8270D

Matrix: SO	Batch ID: OP36617
-------------------	--------------------------

- 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.
- OP36617-BS for 2,4-Dinitrophenol, 4,6-Dinitro-o-cresol, 4-Chloroaniline, Aniline, Hexachlorocyclopentadiene, Pyridine are outside control limits. Blank Spike meets program technical requirements.
- MC27756-9: Elevated RL due to dilution required for matrix interference.
- MC27756-5: Elevated RL due to dilution required for matrix interference.

Extractables by GC By Method CT-ETPH 7/06

Matrix: SO	Batch ID: OP36599
-------------------	--------------------------

- 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 8082

Matrix: SO	Batch ID: OP36602
-------------------	--------------------------

- 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:** MP22418

- 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) MC27756-1AMS, MC27756-1AMSD, MC27756-1ASDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Chromium, Lead, Selenium are outside control limits for sample MP22418-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

Matrix: SO **Batch ID:** MP22401

- 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) MC27753-7SDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Arsenic, Selenium are outside control limits for sample MP22401-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- Only selected metals requested.

Matrix: SO **Batch ID:** MP22409

- 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) MC27760-3PS, MC27760-3SDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Arsenic, Cadmium, Selenium are outside control limits for sample MP22409-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- Only selected metals requested.

Matrix: SO **Batch ID:** MP22416

- 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) MC27780-8SDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Arsenic, Cadmium, Selenium are outside control limits for sample MP22416-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- MP22416-SD1 for Barium, Chromium, Lead: Serial dilution indicates possible matrix interference.

Metals By Method SW846 7470A

Matrix: LEACHATE **Batch ID:** MP22420

- 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) MC27756-1AMS, MC27756-1AMSD were used as the QC samples for metals.

Metals By Method SW846 7471B

Matrix: SO	Batch ID: MP22407
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- 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.

Matrix: SO	Batch ID: MP22414
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- 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.

Wet Chemistry By Method SM21 2540 B MOD.

Matrix: SO	Batch ID: GN45762
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- Sample(s) MC27756-1DUP were used as the QC samples for Solids, Percent.

The Accutest Laboratories of 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 Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(MC27756).

Summary of Hits

Job Number: MC27756
Account: CDR Maguire
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT
Collected: 01/17/14



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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MC27756-1 GP-1 1'-3'

Acetone	37.7	11			ug/kg	SW846 8260C
Acenaphthylene	201	100			ug/kg	SW846 8270D
Anthracene	109	100			ug/kg	SW846 8270D
Benzo(a)anthracene	478	100			ug/kg	SW846 8270D
Benzo(a)pyrene	563	100			ug/kg	SW846 8270D
Benzo(b)fluoranthene	610	100			ug/kg	SW846 8270D
Benzo(g,h,i)perylene	424	100			ug/kg	SW846 8270D
Benzo(k)fluoranthene	454	100			ug/kg	SW846 8270D
Chrysene	617	100			ug/kg	SW846 8270D
Dibenzo(a,h)anthracene	116	100			ug/kg	SW846 8270D
Fluoranthene	1120	100			ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene	367	100			ug/kg	SW846 8270D
Phenanthrene	474	100			ug/kg	SW846 8270D
Pyrene	1060	100			ug/kg	SW846 8270D
CT-ETPH (C9-C36)	124	89			mg/kg	CT-ETPH 7/06
Arsenic	2.1	0.87			mg/kg	SW846 6010C
Barium	39.6	4.3			mg/kg	SW846 6010C
Chromium	12.3	0.87			mg/kg	SW846 6010C
Lead	73.7	0.87			mg/kg	SW846 6010C

MC27756-1A GP-1 1'-3'

Lead	0.010	0.010			mg/l	SW846 6010C
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MC27756-2 GP-2 1'-3'

Acenaphthylene	2360	110			ug/kg	SW846 8270D
Anthracene	1230	110			ug/kg	SW846 8270D
Benzo(a)anthracene	4860	110			ug/kg	SW846 8270D
Benzo(a)pyrene	5590	110			ug/kg	SW846 8270D
Benzo(b)fluoranthene	6490	110			ug/kg	SW846 8270D
Benzo(g,h,i)perylene	3160	110			ug/kg	SW846 8270D
Benzo(k)fluoranthene	4360	110			ug/kg	SW846 8270D
Carbazole	519	110			ug/kg	SW846 8270D
Chrysene	6430	110			ug/kg	SW846 8270D
Dibenzo(a,h)anthracene	1060	110			ug/kg	SW846 8270D
Dibenzofuran	118	110			ug/kg	SW846 8270D
Fluoranthene	10900	560			ug/kg	SW846 8270D
Fluorene	238	110			ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene	3030	110			ug/kg	SW846 8270D
Naphthalene	152	110			ug/kg	SW846 8270D
Phenanthrene	5630	110			ug/kg	SW846 8270D
Pyrene	9580	560			ug/kg	SW846 8270D

Summary of Hits

Job Number: MC27756
Account: CDR Maguire
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT
Collected: 01/17/14



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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CT-ETPH (C9-C36)		266	93		mg/kg	CT-ETPH 7/06
Arsenic		2.2	0.93		mg/kg	SW846 6010C
Barium		46.5	4.6		mg/kg	SW846 6010C
Chromium		19.7	0.93		mg/kg	SW846 6010C
Lead		33.2	0.93		mg/kg	SW846 6010C

MC27756-2A GP-2 1'-3'

Lead		0.016	0.010		mg/l	SW846 6010C
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MC27756-3 GP-3 4'-8'

Acenaphthene		1030	110		ug/kg	SW846 8270D
Acenaphthylene		2570	110		ug/kg	SW846 8270D
Anthracene		3440	110		ug/kg	SW846 8270D
Benzo(a)anthracene		3710	110		ug/kg	SW846 8270D
Benzo(a)pyrene		3230	110		ug/kg	SW846 8270D
Benzo(b)fluoranthene		2380	110		ug/kg	SW846 8270D
Benzo(g,h,i)perylene		1550	110		ug/kg	SW846 8270D
Benzo(k)fluoranthene		2340	110		ug/kg	SW846 8270D
Carbazole		879	110		ug/kg	SW846 8270D
Chrysene		3480	110		ug/kg	SW846 8270D
Dibenzo(a,h)anthracene		517	110		ug/kg	SW846 8270D
Dibenzofuran		1440	110		ug/kg	SW846 8270D
Fluoranthene		8670	540		ug/kg	SW846 8270D
Fluorene		3620	110		ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene		1460	110		ug/kg	SW846 8270D
2-Methylnaphthalene		3890	110		ug/kg	SW846 8270D
Naphthalene		5860	110		ug/kg	SW846 8270D
Phenanthrene		14600	540		ug/kg	SW846 8270D
Pyrene		8290	540		ug/kg	SW846 8270D
CT-ETPH (C9-C36)		670	91		mg/kg	CT-ETPH 7/06
Arsenic		1.9	0.88		mg/kg	SW846 6010C
Barium		60.9	4.4		mg/kg	SW846 6010C
Chromium		16.2	0.88		mg/kg	SW846 6010C
Lead		6.3	0.88		mg/kg	SW846 6010C

MC27756-3A GP-3 4'-8'

No hits reported in this sample.

MC27756-4 GP-6 2'-4'

Acetone		51.5	12		ug/kg	SW846 8260C
Acenaphthene		271	110		ug/kg	SW846 8270D

Summary of Hits

Job Number: MC27756
Account: CDR Maguire
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT
Collected: 01/17/14



Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Acenaphthylene		2810	110		ug/kg	SW846 8270D
Anthracene		2090	110		ug/kg	SW846 8270D
Benzo(a)anthracene		7650	110		ug/kg	SW846 8270D
Benzo(a)pyrene		8500	110		ug/kg	SW846 8270D
Benzo(b)fluoranthene		6340	550		ug/kg	SW846 8270D
Benzo(g,h,i)perylene		4130	110		ug/kg	SW846 8270D
Benzo(k)fluoranthene		5260	110		ug/kg	SW846 8270D
Carbazole		663	110		ug/kg	SW846 8270D
Chrysene		8050	110		ug/kg	SW846 8270D
Dibenzo(a,h)anthracene		1660	110		ug/kg	SW846 8270D
Dibenzofuran		349	110		ug/kg	SW846 8270D
Fluoranthene		13100	550		ug/kg	SW846 8270D
Fluorene		720	110		ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene		4120	110		ug/kg	SW846 8270D
2-Methylnaphthalene		367	110		ug/kg	SW846 8270D
Naphthalene		298	110		ug/kg	SW846 8270D
Phenanthrene		9260	550		ug/kg	SW846 8270D
Pyrene		12700	550		ug/kg	SW846 8270D
CT-ETPH (C9-C36)		370	93		mg/kg	CT-ETPH 7/06
Arsenic		1.8	0.91		mg/kg	SW846 6010C
Barium		58.0	4.5		mg/kg	SW846 6010C
Chromium		20.4	0.91		mg/kg	SW846 6010C
Lead		46.0	0.91		mg/kg	SW846 6010C
Mercury		0.059	0.033		mg/kg	SW846 7471B
MC27756-4A GP-6 2'-4'						
Lead		0.014	0.010		mg/l	SW846 6010C
MC27756-5 GP-7 1'-3'						
Acetone		27.8	11		ug/kg	SW846 8260C
Naphthalene		8.3	5.4		ug/kg	SW846 8260C
Acenaphthylene ^a		2520	520		ug/kg	SW846 8270D
Anthracene ^a		1340	520		ug/kg	SW846 8270D
Benzo(a)anthracene ^a		4750	520		ug/kg	SW846 8270D
Benzo(a)pyrene ^a		5790	520		ug/kg	SW846 8270D
Benzo(b)fluoranthene ^a		5290	520		ug/kg	SW846 8270D
Benzo(g,h,i)perylene ^a		3830	520		ug/kg	SW846 8270D
Benzo(k)fluoranthene ^a		4910	520		ug/kg	SW846 8270D
Chrysene ^a		5090	520		ug/kg	SW846 8270D
Dibenzo(a,h)anthracene ^a		1150	520		ug/kg	SW846 8270D
Fluoranthene ^a		8220	520		ug/kg	SW846 8270D
Fluorene ^a		546	520		ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene ^a		3380	520		ug/kg	SW846 8270D

Summary of Hits

Job Number: MC27756
Account: CDR Maguire
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT
Collected: 01/17/14



Lab Sample ID	Client Sample ID	Result/ Analyte	RL	MDL	Units	Method
		Phenanthrene ^a	3380	520	ug/kg	SW846 8270D
		Pyrene ^a	7750	520	ug/kg	SW846 8270D
		CT-ETPH (C9-C36)	194	89	mg/kg	CT-ETPH 7/06
		Arsenic	1.5	0.78	mg/kg	SW846 6010C
		Barium	44.8	3.9	mg/kg	SW846 6010C
		Chromium	15.0	0.78	mg/kg	SW846 6010C
		Lead	52.5	0.78	mg/kg	SW846 6010C
		Mercury	0.037	0.032	mg/kg	SW846 7471B
MC27756-5A GP-7 1'-3'						
		Lead	0.047	0.010	mg/l	SW846 6010C
MC27756-6 GP-8 1'-3'						
		Acenaphthylene	2710	540	ug/kg	SW846 8270D
		Anthracene	1280	540	ug/kg	SW846 8270D
		Benzo(a)anthracene	3660	540	ug/kg	SW846 8270D
		Benzo(a)pyrene	4970	540	ug/kg	SW846 8270D
		Benzo(b)fluoranthene	4500	540	ug/kg	SW846 8270D
		Benzo(g,h,i)perylene	3300	540	ug/kg	SW846 8270D
		Benzo(k)fluoranthene	3560	540	ug/kg	SW846 8270D
		Chrysene	4210	540	ug/kg	SW846 8270D
		Dibenzo(a,h)anthracene	904	540	ug/kg	SW846 8270D
		Fluoranthene	5450	540	ug/kg	SW846 8270D
		Indeno(1,2,3-cd)pyrene	2750	540	ug/kg	SW846 8270D
		Phenanthrene	1740	540	ug/kg	SW846 8270D
		Pyrene	6440	540	ug/kg	SW846 8270D
		CT-ETPH (C9-C36)	423	91	mg/kg	CT-ETPH 7/06
		Aroclor 1260	43.5	35	ug/kg	SW846 8082
		Arsenic	2.0	0.90	mg/kg	SW846 6010C
		Barium	38.9	4.5	mg/kg	SW846 6010C
		Chromium	12.6	0.90	mg/kg	SW846 6010C
		Lead	57.3	0.90	mg/kg	SW846 6010C
MC27756-6A GP-8 1'-3'						
		Chromium	0.011	0.010	mg/l	SW846 6010C
		Lead	0.023	0.010	mg/l	SW846 6010C
MC27756-7 GP-9 1'-3'						
		Acetone	110	11	ug/kg	SW846 8260C
		Acenaphthylene	222	110	ug/kg	SW846 8270D
		Benzo(a)anthracene	509	110	ug/kg	SW846 8270D

Summary of Hits

Job Number: MC27756
Account: CDR Maguire
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT
Collected: 01/17/14

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Benzo(a)pyrene		593	110		ug/kg	SW846 8270D
Benzo(b)fluoranthene		533	110		ug/kg	SW846 8270D
Benzo(g,h,i)perylene		385	110		ug/kg	SW846 8270D
Benzo(k)fluoranthene		582	110		ug/kg	SW846 8270D
Chrysene		589	110		ug/kg	SW846 8270D
Dibenzo(a,h)anthracene		122	110		ug/kg	SW846 8270D
Fluoranthene		900	110		ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene		358	110		ug/kg	SW846 8270D
Phenanthrene		283	110		ug/kg	SW846 8270D
Pyrene		900	110		ug/kg	SW846 8270D
CT-ETPH (C9-C36)		67.0	19		mg/kg	CT-ETPH 7/06
Arsenic		2.1	0.91		mg/kg	SW846 6010C
Barium		53.9	4.6		mg/kg	SW846 6010C
Chromium		15.8	0.91		mg/kg	SW846 6010C
Lead		35.5	0.91		mg/kg	SW846 6010C
Mercury		0.090	0.033		mg/kg	SW846 7471B

MC27756-7A GP-9 1'-3'

No hits reported in this sample.

MC27756-8 GP-10 1'-3'

Acetone		54.5	11		ug/kg	SW846 8260C
Acenaphthylene		310	110		ug/kg	SW846 8270D
Anthracene		159	110		ug/kg	SW846 8270D
Benzo(a)anthracene		702	110		ug/kg	SW846 8270D
Benzo(a)pyrene		792	110		ug/kg	SW846 8270D
Benzo(b)fluoranthene		846	110		ug/kg	SW846 8270D
Benzo(g,h,i)perylene		504	110		ug/kg	SW846 8270D
Benzo(k)fluoranthene		632	110		ug/kg	SW846 8270D
Chrysene		825	110		ug/kg	SW846 8270D
Dibenzo(a,h)anthracene		154	110		ug/kg	SW846 8270D
Fluoranthene		1340	110		ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene		461	110		ug/kg	SW846 8270D
Phenanthrene		439	110		ug/kg	SW846 8270D
Pyrene		1350	110		ug/kg	SW846 8270D
CT-ETPH (C9-C36)		91.7	19		mg/kg	CT-ETPH 7/06
Arsenic		2.1	0.93		mg/kg	SW846 6010C
Barium		62.3	4.6		mg/kg	SW846 6010C
Chromium		17.1	0.93		mg/kg	SW846 6010C
Lead		43.8	0.93		mg/kg	SW846 6010C
Mercury		0.078	0.037		mg/kg	SW846 7471B

Summary of Hits

Job Number: MC27756
Account: CDR Maguire
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT
Collected: 01/17/14



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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MC27756-8A GP-10 1'-3'

No hits reported in this sample.

MC27756-9 GP-11 2'-4'

Benzo(a)anthracene ^a	809	540		ug/kg	SW846 8270D
Benzo(a)pyrene ^a	923	540		ug/kg	SW846 8270D
Benzo(b)fluoranthene ^a	945	540		ug/kg	SW846 8270D
Benzo(g,h,i)perylene ^a	633	540		ug/kg	SW846 8270D
Benzo(k)fluoranthene ^a	777	540		ug/kg	SW846 8270D
Chrysene ^a	918	540		ug/kg	SW846 8270D
Fluoranthene ^a	1490	540		ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene ^a	554	540		ug/kg	SW846 8270D
Pyrene ^a	1470	540		ug/kg	SW846 8270D
CT-ETPH (C9-C36)	95.1	18		mg/kg	CT-ETPH 7/06
Arsenic	2.1	0.91		mg/kg	SW846 6010C
Barium	62.7	4.6		mg/kg	SW846 6010C
Chromium	22.6	0.91		mg/kg	SW846 6010C
Lead	38.8	0.91		mg/kg	SW846 6010C
Mercury	0.081	0.034		mg/kg	SW846 7471B

MC27756-9A GP-11 2'-4'

Lead	0.010	0.010		mg/l	SW846 6010C
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MC27756-10 GP-12 2'-4'

Acetone	98.8	11		ug/kg	SW846 8260C
Benzo(a)anthracene	920	560		ug/kg	SW846 8270D
Benzo(a)pyrene	978	560		ug/kg	SW846 8270D
Benzo(b)fluoranthene	1050	560		ug/kg	SW846 8270D
Benzo(g,h,i)perylene	643	560		ug/kg	SW846 8270D
Benzo(k)fluoranthene	847	560		ug/kg	SW846 8270D
Chrysene	1040	560		ug/kg	SW846 8270D
Fluoranthene	1780	560		ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene	581	560		ug/kg	SW846 8270D
Phenanthrene	690	560		ug/kg	SW846 8270D
Pyrene	1660	560		ug/kg	SW846 8270D
CT-ETPH (C9-C36)	110	91		mg/kg	CT-ETPH 7/06
Arsenic	2.1	0.89		mg/kg	SW846 6010C
Barium	53.1	4.5		mg/kg	SW846 6010C
Chromium	17.4	0.89		mg/kg	SW846 6010C
Lead	69.4	0.89		mg/kg	SW846 6010C

Summary of Hits

Job Number: MC27756
Account: CDR Maguire
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT
Collected: 01/17/14



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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MC27756-10A GP-12 2' -4'

Lead	0.012	0.010			mg/l	SW846 6010C
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MC27756-11 GP-15 1' -3'

Acetone	49.3	12			ug/kg	SW846 8260C
Acenaphthylene	7560	600			ug/kg	SW846 8270D
Anthracene	5710	600			ug/kg	SW846 8270D
Benzo(a)anthracene	18600	600			ug/kg	SW846 8270D
Benzo(a)pyrene	17100	600			ug/kg	SW846 8270D
Benzo(b)fluoranthene	19100	600			ug/kg	SW846 8270D
Benzo(g,h,i)perylene	8610	600			ug/kg	SW846 8270D
Benzo(k)fluoranthene	13900	600			ug/kg	SW846 8270D
Carbazole	2690	600			ug/kg	SW846 8270D
Chrysene	19700	600			ug/kg	SW846 8270D
Dibenzo(a,h)anthracene	3010	600			ug/kg	SW846 8270D
Dibenzofuran	1390	600			ug/kg	SW846 8270D
Fluoranthene	43500	600			ug/kg	SW846 8270D
Fluorene	1660	600			ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene	8620	600			ug/kg	SW846 8270D
2-Methylnaphthalene	684	600			ug/kg	SW846 8270D
Naphthalene	661	600			ug/kg	SW846 8270D
Phenanthrene	29400	600			ug/kg	SW846 8270D
Pyrene	34000	600			ug/kg	SW846 8270D
CT-ETPH (C9-C36)	1760	99			mg/kg	CT-ETPH 7/06
Arsenic	2.2	0.96			mg/kg	SW846 6010C
Barium	43.8	4.8			mg/kg	SW846 6010C
Cadmium	0.54	0.38			mg/kg	SW846 6010C
Chromium	28.3	0.96			mg/kg	SW846 6010C
Lead	88.1	0.96			mg/kg	SW846 6010C

MC27756-11A GP-15 1' -3'

Lead	0.044	0.010			mg/l	SW846 6010C
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MC27756-12 GP-16 1' -3'

Naphthalene	6.0	5.7			ug/kg	SW846 8260C
Acenaphthylene	3850	540			ug/kg	SW846 8270D
Anthracene	2490	540			ug/kg	SW846 8270D
Benzo(a)anthracene	10200	540			ug/kg	SW846 8270D
Benzo(a)pyrene	9520	540			ug/kg	SW846 8270D
Benzo(b)fluoranthene	9970	540			ug/kg	SW846 8270D
Benzo(g,h,i)perylene	4860	540			ug/kg	SW846 8270D

Summary of Hits

Job Number: MC27756
Account: CDR Maguire
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT
Collected: 01/17/14



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
		7730	540		ug/kg	SW846 8270D
		695	540		ug/kg	SW846 8270D
		10700	540		ug/kg	SW846 8270D
		1690	540		ug/kg	SW846 8270D
		21100	540		ug/kg	SW846 8270D
		4720	540		ug/kg	SW846 8270D
		8970	540		ug/kg	SW846 8270D
		17900	540		ug/kg	SW846 8270D
		1480	92		mg/kg	CT-ETPH 7/06
		1.8	0.90		mg/kg	SW846 6010C
		39.8	4.5		mg/kg	SW846 6010C
		12.3	0.90		mg/kg	SW846 6010C
		120	0.90		mg/kg	SW846 6010C

MC27756-12A GP-16 1'-3'

Lead	0.095	0.010		mg/l	SW846 6010C
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(a) Elevated RL due to dilution required for matrix interference.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: GP-1 1'-3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-1		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 92.4
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M62887.D	1	01/23/14	KD	n/a	n/a	MSM2203
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	4.86 g	5.0 ml
Run #2		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	37.7	11	ug/kg	
107-13-1	Acrylonitrile	ND	28	ug/kg	
71-43-2	Benzene	ND	0.56	ug/kg	
108-86-1	Bromobenzene	ND	5.6	ug/kg	
75-27-4	Bromodichloromethane	ND	2.2	ug/kg	
75-25-2	Bromoform	ND	2.2	ug/kg	
74-83-9	Bromomethane	ND	2.2	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	ug/kg	
104-51-8	n-Butylbenzene	ND	5.6	ug/kg	
135-98-8	sec-Butylbenzene	ND	5.6	ug/kg	
98-06-6	tert-Butylbenzene	ND	5.6	ug/kg	
75-15-0	Carbon disulfide	ND	5.6	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.2	ug/kg	
108-90-7	Chlorobenzene	ND	2.2	ug/kg	
75-00-3	Chloroethane	ND	5.6	ug/kg	
67-66-3	Chloroform	ND	2.2	ug/kg	
74-87-3	Chloromethane	ND	5.6	ug/kg	
95-49-8	o-Chlorotoluene	ND	5.6	ug/kg	
106-43-4	p-Chlorotoluene	ND	5.6	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.6	ug/kg	
124-48-1	Dibromochloromethane	ND	2.2	ug/kg	
106-93-4	1,2-Dibromoethane	ND	2.2	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	2.2	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	2.2	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	2.2	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	2.2	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.2	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.2	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.2	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.2	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.2	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.2	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 1'-3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-1		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 92.4
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.6	ug/kg	
594-20-7	2,2-Dichloropropane	ND	5.6	ug/kg	
563-58-6	1,1-Dichloropropene	ND	5.6	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.2	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.2	ug/kg	
100-41-4	Ethylbenzene	ND	2.2	ug/kg	
76-13-1	Freon 113	ND	5.6	ug/kg	
87-68-3	Hexachlorobutadiene	ND	5.6	ug/kg	
591-78-6	2-Hexanone	ND	11	ug/kg	
98-82-8	Isopropylbenzene	ND	5.6	ug/kg	
99-87-6	p-Isopropyltoluene	ND	5.6	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.2	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.6	ug/kg	
74-95-3	Methylene bromide	ND	5.6	ug/kg	
75-09-2	Methylene chloride	ND	2.2	ug/kg	
91-20-3	Naphthalene	ND	5.6	ug/kg	
103-65-1	n-Propylbenzene	ND	5.6	ug/kg	
100-42-5	Styrene	ND	5.6	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.6	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.2	ug/kg	
127-18-4	Tetrachloroethene	ND	2.2	ug/kg	
109-99-9	Tetrahydrofuran	ND	11	ug/kg	
108-88-3	Toluene	ND	5.6	ug/kg	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.6	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.6	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.6	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.2	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.2	ug/kg	
79-01-6	Trichloroethene	ND	2.2	ug/kg	
75-69-4	Trichlorofluoromethane	ND	2.2	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	5.6	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	5.6	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	5.6	ug/kg	
75-01-4	Vinyl chloride	ND	2.2	ug/kg	
	m,p-Xylene	ND	2.2	ug/kg	
95-47-6	o-Xylene	ND	2.2	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		70-130%

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-1 1'-3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-1		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 92.4
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	90%		70-130%
460-00-4	4-Bromofluorobenzene	86%		70-130%

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-1 1'-3'		
Lab Sample ID: MC27756-1		Date Sampled: 01/17/14
Matrix: SO - Soil		Date Received: 01/17/14
Method: SW846 8270D SW846 3546		Percent Solids: 92.4
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R36694.D	1	01/24/14	WK	01/21/14	OP36617	MSR1352
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	1000	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	1000	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	201	100	ug/kg	
62-53-3	Aniline	ND	520	ug/kg	
120-12-7	Anthracene	109	100	ug/kg	
56-55-3	Benzo(a)anthracene	478	100	ug/kg	
50-32-8	Benzo(a)pyrene	563	100	ug/kg	
205-99-2	Benzo(b)fluoranthene	610	100	ug/kg	
191-24-2	Benzo(g,h,i)perylene	424	100	ug/kg	
207-08-9	Benzo(k)fluoranthene	454	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	617	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-1 1'-3'	Date Sampled:	01/17/14
Lab Sample ID:	MC27756-1	Date Received:	01/17/14
Matrix:	SO - Soil	Percent Solids:	92.4
Method:	SW846 8270D SW846 3546		
Project:	Bridge No. 1127-Rte 80 Over Farm River North Branford, 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	260	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	116	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	1120	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	367	100	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	474	100	ug/kg	
129-00-0	Pyrene	1060	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	63%		30-130%
4165-62-2	Phenol-d5	68%		30-130%
118-79-6	2,4,6-Tribromophenol	73%		30-130%
4165-60-0	Nitrobenzene-d5	75%		30-130%

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 1'-3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-1		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 92.4
Method: SW846 8270D SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

ABN RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	70%		30-130%
1718-51-0	Terphenyl-d14	79%		30-130%

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-1 1'-3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-1		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 92.4
Method: SW846 8082 SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK34181.D	1	01/24/14	NK	01/20/14	OP36602	GBK1124
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	15.4 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	83%		30-150%
877-09-8	Tetrachloro-m-xylene	78%		30-150%
2051-24-3	Decachlorobiphenyl	87%		30-150%
2051-24-3	Decachlorobiphenyl	89%		30-150%

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-1 1'-3'	Date Sampled:	01/17/14
Lab Sample ID:	MC27756-1	Date Received:	01/17/14
Matrix:	SO - Soil	Percent Solids:	92.4
Method:	CT-ETPH 7/06 SW846 3546		
Project:	Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BI31014.D	5	01/24/14	KN	01/20/14	OP36599	GBI1128
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)	124	89	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

4.1
4

Report of Analysis

Client Sample ID: GP-1 1'-3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-1		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 92.4
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	2.1	0.87	mg/kg	1	01/21/14	01/21/14 EAL	SW846 6010C ²	SW846 3050B ³
Barium	39.6	4.3	mg/kg	1	01/21/14	01/21/14 EAL	SW846 6010C ²	SW846 3050B ³
Cadmium	< 0.35	0.35	mg/kg	1	01/21/14	01/21/14 EAL	SW846 6010C ²	SW846 3050B ³
Chromium	12.3	0.87	mg/kg	1	01/21/14	01/21/14 EAL	SW846 6010C ²	SW846 3050B ³
Lead	73.7	0.87	mg/kg	1	01/21/14	01/21/14 EAL	SW846 6010C ²	SW846 3050B ³
Mercury	< 0.032	0.032	mg/kg	1	01/22/14	01/22/14 SA	SW846 7471B ¹	SW846 7471B ⁴
Selenium	< 0.87	0.87	mg/kg	1	01/21/14	01/21/14 EAL	SW846 6010C ²	SW846 3050B ³
Silver	< 0.43	0.43	mg/kg	1	01/21/14	01/21/14 EAL	SW846 6010C ²	SW846 3050B ³

- (1) Instrument QC Batch: MA16675
- (2) Instrument QC Batch: MA16678
- (3) Prep QC Batch: MP22401
- (4) Prep QC Batch: MP22407

RL = Reporting Limit

4.1
4

Report of Analysis

Client Sample ID: GP-1 1'-3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-1A		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 92.4
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, 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	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Barium	< 0.50	0.50		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Cadmium	< 0.0040	0.0040		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Chromium	< 0.010	0.010		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Lead	0.010	0.010		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Mercury	< 0.00020	0.00020		mg/l	1	01/23/14	01/24/14 SA	SW846 7470A ¹	SW846 7470A ⁴
Selenium	< 0.025	0.025		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Silver	< 0.0050	0.0050		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³

- (1) Instrument QC Batch: MA16685
- (2) Instrument QC Batch: MA16690
- (3) Prep QC Batch: MP22418
- (4) Prep QC Batch: MP22420

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

4.2
4

Report of Analysis

Client Sample ID: GP-2 1'-3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-2		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 88.4
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M62888.D	1	01/23/14	KD	n/a	n/a	MSM2203
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	5.00 g	5.0 ml
Run #2		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	11	ug/kg	
107-13-1	Acrylonitrile	ND	28	ug/kg	
71-43-2	Benzene	ND	0.57	ug/kg	
108-86-1	Bromobenzene	ND	5.7	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	11	ug/kg	
104-51-8	n-Butylbenzene	ND	5.7	ug/kg	
135-98-8	sec-Butylbenzene	ND	5.7	ug/kg	
98-06-6	tert-Butylbenzene	ND	5.7	ug/kg	
75-15-0	Carbon disulfide	ND	5.7	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	5.7	ug/kg	
67-66-3	Chloroform	ND	2.3	ug/kg	
74-87-3	Chloromethane	ND	5.7	ug/kg	
95-49-8	o-Chlorotoluene	ND	5.7	ug/kg	
106-43-4	p-Chlorotoluene	ND	5.7	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.7	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

4.3
4

Report of Analysis

Client Sample ID: GP-2 1'-3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-2		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 88.4
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.7	ug/kg	
594-20-7	2,2-Dichloropropane	ND	5.7	ug/kg	
563-58-6	1,1-Dichloropropene	ND	5.7	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	5.7	ug/kg	
87-68-3	Hexachlorobutadiene	ND	5.7	ug/kg	
591-78-6	2-Hexanone	ND	11	ug/kg	
98-82-8	Isopropylbenzene	ND	5.7	ug/kg	
99-87-6	p-Isopropyltoluene	ND	5.7	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.3	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.7	ug/kg	
74-95-3	Methylene bromide	ND	5.7	ug/kg	
75-09-2	Methylene chloride	ND	2.3	ug/kg	
91-20-3	Naphthalene	ND	5.7	ug/kg	
103-65-1	n-Propylbenzene	ND	5.7	ug/kg	
100-42-5	Styrene	ND	5.7	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.7	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	11	ug/kg	
108-88-3	Toluene	ND	5.7	ug/kg	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.7	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.7	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.7	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	5.7	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	5.7	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	5.7	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	92%		70-130%

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-2 1'-3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-2		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 88.4
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	89%		70-130%
460-00-4	4-Bromofluorobenzene	86%		70-130%

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-2 1'-3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-2		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 88.4
Method: SW846 8270D SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R36695.D	1	01/24/14	WK	01/21/14	OP36617	MSR1352
Run #2	R36709.D	5	01/24/14	WK	01/21/14	OP36617	MSR1352

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	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	1100	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	1100	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	2360	110	ug/kg	
62-53-3	Aniline	ND	560	ug/kg	
120-12-7	Anthracene	1230	110	ug/kg	
56-55-3	Benzo(a)anthracene	4860	110	ug/kg	
50-32-8	Benzo(a)pyrene	5590	110	ug/kg	
205-99-2	Benzo(b)fluoranthene	6490	110	ug/kg	
191-24-2	Benzo(g,h,i)perylene	3160	110	ug/kg	
207-08-9	Benzo(k)fluoranthene	4360	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	519	110	ug/kg	
218-01-9	Chrysene	6430	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 1'-3'	Date Sampled:	01/17/14
Lab Sample ID:	MC27756-2	Date Received:	01/17/14
Matrix:	SO - Soil	Percent Solids:	88.4
Method:	SW846 8270D SW846 3546		
Project:	Bridge No. 1127-Rte 80 Over Farm River North Branford, 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	280	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	1060	110	ug/kg	
132-64-9	Dibenzofuran	118	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	10900 ^a	560	ug/kg	
86-73-7	Fluorene	238	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	3030	110	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	152	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	5630	110	ug/kg	
129-00-0	Pyrene	9580 ^a	560	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	43%	40%	30-130%
4165-62-2	Phenol-d5	49%	46%	30-130%
118-79-6	2,4,6-Tribromophenol	56%	49%	30-130%
4165-60-0	Nitrobenzene-d5	50%	45%	30-130%

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 1'-3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-2		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 88.4
Method: SW846 8270D SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

ABN RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	47%	44%	30-130%
1718-51-0	Terphenyl-d14	56%	53%	30-130%

(a) Result is from Run# 2

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-2 1'-3'		
Lab Sample ID: MC27756-2		Date Sampled: 01/17/14
Matrix: SO - Soil		Date Received: 01/17/14
Method: SW846 8082 SW846 3546		Percent Solids: 88.4
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK34182.D	1	01/24/14	NK	01/20/14	OP36602	GBK1124
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	37	ug/kg	
11104-28-2	Aroclor 1221	ND	37	ug/kg	
11141-16-5	Aroclor 1232	ND	37	ug/kg	
53469-21-9	Aroclor 1242	ND	37	ug/kg	
12672-29-6	Aroclor 1248	ND	37	ug/kg	
11097-69-1	Aroclor 1254	ND	37	ug/kg	
11096-82-5	Aroclor 1260	ND	37	ug/kg	
37324-23-5	Aroclor 1262	ND	37	ug/kg	
11100-14-4	Aroclor 1268	ND	37	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	83%		30-150%
877-09-8	Tetrachloro-m-xylene	71%		30-150%
2051-24-3	Decachlorobiphenyl	82%		30-150%
2051-24-3	Decachlorobiphenyl	82%		30-150%

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-2 1'-3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-2		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 88.4
Method: CT-ETPH 7/06 SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BI31016.D	5	01/24/14	KN	01/20/14	OP36599	GBI1128
Run #2							

Run #	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)	266	93	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

4.3
4

Report of Analysis

Client Sample ID: GP-2 1'-3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-2		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 88.4
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	2.2	0.93	mg/kg	1	01/21/14	01/21/14 EAL	SW846 6010C ²	SW846 3050B ³
Barium	46.5	4.6	mg/kg	1	01/21/14	01/21/14 EAL	SW846 6010C ²	SW846 3050B ³
Cadmium	< 0.37	0.37	mg/kg	1	01/21/14	01/21/14 EAL	SW846 6010C ²	SW846 3050B ³
Chromium	19.7	0.93	mg/kg	1	01/21/14	01/21/14 EAL	SW846 6010C ²	SW846 3050B ³
Lead	33.2	0.93	mg/kg	1	01/21/14	01/21/14 EAL	SW846 6010C ²	SW846 3050B ³
Mercury	< 0.035	0.035	mg/kg	1	01/22/14	01/22/14 SA	SW846 7471B ¹	SW846 7471B ⁴
Selenium	< 0.93	0.93	mg/kg	1	01/21/14	01/21/14 EAL	SW846 6010C ²	SW846 3050B ³
Silver	< 0.46	0.46	mg/kg	1	01/21/14	01/21/14 EAL	SW846 6010C ²	SW846 3050B ³

- (1) Instrument QC Batch: MA16675
- (2) Instrument QC Batch: MA16678
- (3) Prep QC Batch: MP22401
- (4) Prep QC Batch: MP22407

RL = Reporting Limit

4.3
4

Report of Analysis

Client Sample ID: GP-2 1'-3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-2A		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 88.4
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, 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	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Barium	< 0.50	0.50		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Cadmium	< 0.0040	0.0040		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Chromium	< 0.010	0.010		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Lead	0.016	0.010		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Mercury	< 0.00020	0.00020		mg/l	1	01/23/14	01/24/14 SA	SW846 7470A ¹	SW846 7470A ⁴
Selenium	< 0.025	0.025		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Silver	< 0.0050	0.0050		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³

- (1) Instrument QC Batch: MA16685
- (2) Instrument QC Batch: MA16690
- (3) Prep QC Batch: MP22418
- (4) Prep QC Batch: MP22420

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

4.4
4

Report of Analysis

Client Sample ID: GP-3 4' -8'		
Lab Sample ID: MC27756-3		Date Sampled: 01/17/14
Matrix: SO - Soil		Date Received: 01/17/14
Method: SW846 8260C		Percent Solids: 89.9
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M62889.D	1	01/23/14	KD	n/a	n/a	MSM2203
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	3.24 g	5.0 ml
Run #2		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	17	ug/kg	
107-13-1	Acrylonitrile	ND	43	ug/kg	
71-43-2	Benzene	ND	0.86	ug/kg	
108-86-1	Bromobenzene	ND	8.6	ug/kg	
75-27-4	Bromodichloromethane	ND	3.4	ug/kg	
75-25-2	Bromoform	ND	3.4	ug/kg	
74-83-9	Bromomethane	ND	3.4	ug/kg	
78-93-3	2-Butanone (MEK)	ND	17	ug/kg	
104-51-8	n-Butylbenzene	ND	8.6	ug/kg	
135-98-8	sec-Butylbenzene	ND	8.6	ug/kg	
98-06-6	tert-Butylbenzene	ND	8.6	ug/kg	
75-15-0	Carbon disulfide	ND	8.6	ug/kg	
56-23-5	Carbon tetrachloride	ND	3.4	ug/kg	
108-90-7	Chlorobenzene	ND	3.4	ug/kg	
75-00-3	Chloroethane	ND	8.6	ug/kg	
67-66-3	Chloroform	ND	3.4	ug/kg	
74-87-3	Chloromethane	ND	8.6	ug/kg	
95-49-8	o-Chlorotoluene	ND	8.6	ug/kg	
106-43-4	p-Chlorotoluene	ND	8.6	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	8.6	ug/kg	
124-48-1	Dibromochloromethane	ND	3.4	ug/kg	
106-93-4	1,2-Dibromoethane	ND	3.4	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	3.4	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	3.4	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	3.4	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	3.4	ug/kg	
75-34-3	1,1-Dichloroethane	ND	3.4	ug/kg	
107-06-2	1,2-Dichloroethane	ND	3.4	ug/kg	
75-35-4	1,1-Dichloroethene	ND	3.4	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	3.4	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	3.4	ug/kg	
78-87-5	1,2-Dichloropropane	ND	3.4	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

4.5
4

Report of Analysis

Client Sample ID: GP-3 4' -8'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-3		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 89.9
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	8.6	ug/kg	
594-20-7	2,2-Dichloropropane	ND	8.6	ug/kg	
563-58-6	1,1-Dichloropropene	ND	8.6	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	3.4	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	3.4	ug/kg	
100-41-4	Ethylbenzene	ND	3.4	ug/kg	
76-13-1	Freon 113	ND	8.6	ug/kg	
87-68-3	Hexachlorobutadiene	ND	8.6	ug/kg	
591-78-6	2-Hexanone	ND	17	ug/kg	
98-82-8	Isopropylbenzene	ND	8.6	ug/kg	
99-87-6	p-Isopropyltoluene	ND	8.6	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	3.4	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	8.6	ug/kg	
74-95-3	Methylene bromide	ND	8.6	ug/kg	
75-09-2	Methylene chloride	ND	3.4	ug/kg	
91-20-3	Naphthalene	ND	8.6	ug/kg	
103-65-1	n-Propylbenzene	ND	8.6	ug/kg	
100-42-5	Styrene	ND	8.6	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	8.6	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	3.4	ug/kg	
127-18-4	Tetrachloroethene	ND	3.4	ug/kg	
109-99-9	Tetrahydrofuran	ND	17	ug/kg	
108-88-3	Toluene	ND	8.6	ug/kg	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	8.6	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	8.6	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	8.6	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	3.4	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	3.4	ug/kg	
79-01-6	Trichloroethene	ND	3.4	ug/kg	
75-69-4	Trichlorofluoromethane	ND	3.4	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	8.6	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	8.6	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	8.6	ug/kg	
75-01-4	Vinyl chloride	ND	3.4	ug/kg	
	m,p-Xylene	ND	3.4	ug/kg	
95-47-6	o-Xylene	ND	3.4	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	88%		70-130%

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 4' -8'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-3		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 89.9
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

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VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	88%		70-130%
460-00-4	4-Bromofluorobenzene	85%		70-130%

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 4' -8'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-3		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 89.9
Method: SW846 8270D SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R36696.D	1	01/24/14	WK	01/21/14	OP36617	MSR1352
Run #2	R36710.D	5	01/24/14	WK	01/21/14	OP36617	MSR1352

Run #1	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	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	1100	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	1100	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	1030	110	ug/kg	
208-96-8	Acenaphthylene	2570	110	ug/kg	
62-53-3	Aniline	ND	540	ug/kg	
120-12-7	Anthracene	3440	110	ug/kg	
56-55-3	Benzo(a)anthracene	3710	110	ug/kg	
50-32-8	Benzo(a)pyrene	3230	110	ug/kg	
205-99-2	Benzo(b)fluoranthene	2380	110	ug/kg	
191-24-2	Benzo(g,h,i)perylene	1550	110	ug/kg	
207-08-9	Benzo(k)fluoranthene	2340	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	879	110	ug/kg	
218-01-9	Chrysene	3480	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 4' -8'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-3		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 89.9
Method: SW846 8270D SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, 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	270	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	517	110	ug/kg	
132-64-9	Dibenzofuran	1440	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	8670 ^a	540	ug/kg	
86-73-7	Fluorene	3620	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	1460	110	ug/kg	
78-59-1	Isophorone	ND	270	ug/kg	
91-57-6	2-Methylnaphthalene	3890	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	5860	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	14600 ^a	540	ug/kg	
129-00-0	Pyrene	8290 ^a	540	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	63%	59%	30-130%
4165-62-2	Phenol-d5	65%	61%	30-130%
118-79-6	2,4,6-Tribromophenol	77%	62%	30-130%
4165-60-0	Nitrobenzene-d5	75%	68%	30-130%

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 4' -8'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-3		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 89.9
Method: SW846 8270D SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

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ABN RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	67%	61%	30-130%
1718-51-0	Terphenyl-d14	80%	69%	30-130%

(a) Result is from Run# 2

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 4' -8'	Date Sampled:	01/17/14
Lab Sample ID:	MC27756-3	Date Received:	01/17/14
Matrix:	SO - Soil	Percent Solids:	89.9
Method:	SW846 8082 SW846 3546		
Project:	Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK34183.D	1	01/24/14	NK	01/20/14	OP36602	GBK1124
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	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	80%		30-150%
877-09-8	Tetrachloro-m-xylene	67%		30-150%
2051-24-3	Decachlorobiphenyl	78%		30-150%
2051-24-3	Decachlorobiphenyl	75%		30-150%

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-3 4' -8'	Date Sampled:	01/17/14
Lab Sample ID:	MC27756-3	Date Received:	01/17/14
Matrix:	SO - Soil	Percent Solids:	89.9
Method:	CT-ETPH 7/06 SW846 3546		
Project:	Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BI31011.D	5	01/24/14	KN	01/20/14	OP36599	GBI1127
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.3 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-ETPH (C9-C36)	670	91	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	70%		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-3 4' -8'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-3		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 89.9
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	1.9	0.88	mg/kg	1	01/21/14	01/21/14 EAL	SW846 6010C ²	SW846 3050B ³
Barium	60.9	4.4	mg/kg	1	01/21/14	01/21/14 EAL	SW846 6010C ²	SW846 3050B ³
Cadmium	< 0.35	0.35	mg/kg	1	01/21/14	01/21/14 EAL	SW846 6010C ²	SW846 3050B ³
Chromium	16.2	0.88	mg/kg	1	01/21/14	01/21/14 EAL	SW846 6010C ²	SW846 3050B ³
Lead	6.3	0.88	mg/kg	1	01/21/14	01/21/14 EAL	SW846 6010C ²	SW846 3050B ³
Mercury	< 0.033	0.033	mg/kg	1	01/22/14	01/22/14 SA	SW846 7471B ¹	SW846 7471B ⁴
Selenium	< 0.88	0.88	mg/kg	1	01/21/14	01/21/14 EAL	SW846 6010C ²	SW846 3050B ³
Silver	< 0.44	0.44	mg/kg	1	01/21/14	01/21/14 EAL	SW846 6010C ²	SW846 3050B ³

- (1) Instrument QC Batch: MA16675
- (2) Instrument QC Batch: MA16678
- (3) Prep QC Batch: MP22401
- (4) Prep QC Batch: MP22407

RL = Reporting Limit

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Report of Analysis

Client Sample ID: GP-3 4' -8'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-3A		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 89.9
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, 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	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Barium	< 0.50	0.50		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Cadmium	< 0.0040	0.0040		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Chromium	< 0.010	0.010		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Lead	< 0.010	0.010		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Mercury	< 0.00020	0.00020		mg/l	1	01/23/14	01/24/14 SA	SW846 7470A ¹	SW846 7470A ⁴
Selenium	< 0.025	0.025		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Silver	< 0.0050	0.0050		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³

- (1) Instrument QC Batch: MA16685
- (2) Instrument QC Batch: MA16690
- (3) Prep QC Batch: MP22418
- (4) Prep QC Batch: MP22420

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

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Report of Analysis

Client Sample ID: GP-6 2' -4'		
Lab Sample ID: MC27756-4		Date Sampled: 01/17/14
Matrix: SO - Soil		Date Received: 01/17/14
Method: SW846 8260C		Percent Solids: 89.4
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M62890.D	1	01/23/14	KD	n/a	n/a	MSM2203
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	51.5	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	12	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

4.7
4

Report of Analysis

Client Sample ID: GP-6 2' -4'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-4		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 89.4
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, 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	91%		70-130%

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-6 2' -4'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-4		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 89.4
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	86%		70-130%
460-00-4	4-Bromofluorobenzene	84%		70-130%

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-6 2' -4'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-4		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 89.4
Method: SW846 8270D SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R36697.D	1	01/24/14	WK	01/21/14	OP36617	MSR1352
Run #2	R36711.D	5	01/24/14	WK	01/21/14	OP36617	MSR1352

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	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	1100	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	1100	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	271	110	ug/kg	
208-96-8	Acenaphthylene	2810	110	ug/kg	
62-53-3	Aniline	ND	550	ug/kg	
120-12-7	Anthracene	2090	110	ug/kg	
56-55-3	Benzo(a)anthracene	7650	110	ug/kg	
50-32-8	Benzo(a)pyrene	8500	110	ug/kg	
205-99-2	Benzo(b)fluoranthene	6340 ^a	550	ug/kg	
191-24-2	Benzo(g,h,i)perylene	4130	110	ug/kg	
207-08-9	Benzo(k)fluoranthene	5260	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	663	110	ug/kg	
218-01-9	Chrysene	8050	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-6 2' -4'	Date Sampled:	01/17/14
Lab Sample ID:	MC27756-4	Date Received:	01/17/14
Matrix:	SO - Soil	Percent Solids:	89.4
Method:	SW846 8270D SW846 3546		
Project:	Bridge No. 1127-Rte 80 Over Farm River North Branford, 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	270	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	1660	110	ug/kg	
132-64-9	Dibenzofuran	349	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	13100 ^a	550	ug/kg	
86-73-7	Fluorene	720	110	ug/kg	
118-74-1	Hexachlorobenzene	ND	270	ug/kg	
87-68-3	Hexachlorobutadiene	ND	270	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	550	ug/kg	
67-72-1	Hexachloroethane	ND	270	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	4120	110	ug/kg	
78-59-1	Isophorone	ND	270	ug/kg	
91-57-6	2-Methylnaphthalene	367	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	298	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	9260 ^a	550	ug/kg	
129-00-0	Pyrene	12700 ^a	550	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	47%	43%	30-130%
4165-62-2	Phenol-d5	51%	47%	30-130%
118-79-6	2,4,6-Tribromophenol	59%	51%	30-130%
4165-60-0	Nitrobenzene-d5	57%	51%	30-130%

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 2' -4'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-4		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 89.4
Method: SW846 8270D SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

ABN RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	53%	47%	30-130%
1718-51-0	Terphenyl-d14	58%	55%	30-130%

(a) Result is from Run# 2

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-6 2' -4'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-4		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 89.4
Method: SW846 8082 SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK34184.D	1	01/24/14	NK	01/20/14	OP36602	GBK1124
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	15.1 g	10.0 ml
Run #2		

CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	37	ug/kg	
11104-28-2	Aroclor 1221	ND	37	ug/kg	
11141-16-5	Aroclor 1232	ND	37	ug/kg	
53469-21-9	Aroclor 1242	ND	37	ug/kg	
12672-29-6	Aroclor 1248	ND	37	ug/kg	
11097-69-1	Aroclor 1254	ND	37	ug/kg	
11096-82-5	Aroclor 1260	ND	37	ug/kg	
37324-23-5	Aroclor 1262	ND	37	ug/kg	
11100-14-4	Aroclor 1268	ND	37	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	90%		30-150%
877-09-8	Tetrachloro-m-xylene	84%		30-150%
2051-24-3	Decachlorobiphenyl	87%		30-150%
2051-24-3	Decachlorobiphenyl	82%		30-150%

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-6 2' -4'	Date Sampled:	01/17/14
Lab Sample ID:	MC27756-4	Date Received:	01/17/14
Matrix:	SO - Soil	Percent Solids:	89.4
Method:	CT-ETPH 7/06 SW846 3546		
Project:	Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BI31009.D	5	01/24/14	KN	01/20/14	OP36599	GBI1127
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)	370	93	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

4.7
4

Report of Analysis

Client Sample ID: GP-6 2' -4'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-4		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 89.4
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	1.8	0.91	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Barium	58.0	4.5	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Cadmium	< 0.36	0.36	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Chromium	20.4	0.91	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Lead	46.0	0.91	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Mercury	0.059	0.033	mg/kg	1	01/22/14	01/22/14 SA	SW846 7471B ¹	SW846 7471B ³
Selenium	< 0.91	0.91	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Silver	< 0.45	0.45	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ⁴

- (1) Instrument QC Batch: MA16675
- (2) Instrument QC Batch: MA16683
- (3) Prep QC Batch: MP22407
- (4) Prep QC Batch: MP22409

RL = Reporting Limit

4.7
4

Report of Analysis

Client Sample ID: GP-6 2' -4'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-4A		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 89.4
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, 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	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Barium	< 0.50	0.50		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Cadmium	< 0.0040	0.0040		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Chromium	< 0.010	0.010		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Lead	0.014	0.010		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Mercury	< 0.00020	0.00020		mg/l	1	01/23/14	01/24/14 SA	SW846 7470A ¹	SW846 7470A ⁴
Selenium	< 0.025	0.025		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Silver	< 0.0050	0.0050		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³

- (1) Instrument QC Batch: MA16685
- (2) Instrument QC Batch: MA16690
- (3) Prep QC Batch: MP22418
- (4) Prep QC Batch: MP22420

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

4.8
4

Report of Analysis

Client Sample ID: GP-7 1'-3'		
Lab Sample ID: MC27756-5		Date Sampled: 01/17/14
Matrix: SO - Soil		Date Received: 01/17/14
Method: SW846 8260C		Percent Solids: 92.1
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M62891.D	1	01/23/14	KD	n/a	n/a	MSM2203
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	5.05 g	5.0 ml
Run #2		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	27.8	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	2.2	ug/kg	
75-25-2	Bromoform	ND	2.2	ug/kg	
74-83-9	Bromomethane	ND	2.2	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	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	2.2	ug/kg	
108-90-7	Chlorobenzene	ND	2.2	ug/kg	
75-00-3	Chloroethane	ND	5.4	ug/kg	
67-66-3	Chloroform	ND	2.2	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	2.2	ug/kg	
106-93-4	1,2-Dibromoethane	ND	2.2	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	2.2	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	2.2	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	2.2	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	2.2	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.2	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.2	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.2	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.2	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.2	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.2	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 1'-3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-5		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 92.1
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, 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	2.2	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.2	ug/kg	
100-41-4	Ethylbenzene	ND	2.2	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	2.2	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	2.2	ug/kg	
91-20-3	Naphthalene	8.3	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	2.2	ug/kg	
127-18-4	Tetrachloroethene	ND	2.2	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	2.2	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.2	ug/kg	
79-01-6	Trichloroethene	ND	2.2	ug/kg	
75-69-4	Trichlorofluoromethane	ND	2.2	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	2.2	ug/kg	
	m,p-Xylene	ND	2.2	ug/kg	
95-47-6	o-Xylene	ND	2.2	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	90%		70-130%

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 1'-3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-5		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 92.1
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	90%		70-130%
460-00-4	4-Bromofluorobenzene	86%		70-130%

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 1'-3'		
Lab Sample ID: MC27756-5		Date Sampled: 01/17/14
Matrix: SO - Soil		Date Received: 01/17/14
Method: SW846 8270D SW846 3546		Percent Solids: 92.1
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	R36698.D	5	01/24/14	WK	01/21/14	OP36617	MSR1352
Run #2							

Run #	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	1300	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2600	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2600	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2600	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5200	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2600	ug/kg	
95-48-7	2-Methylphenol	ND	2600	ug/kg	
106-44-5	4-Methylphenol	ND	2600	ug/kg	
88-75-5	2-Nitrophenol	ND	2600	ug/kg	
100-02-7	4-Nitrophenol	ND	5200	ug/kg	
87-86-5	Pentachlorophenol	ND	2600	ug/kg	
108-95-2	Phenol	ND	1300	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2600	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2600	ug/kg	
83-32-9	Acenaphthene	ND	520	ug/kg	
208-96-8	Acenaphthylene	2520	520	ug/kg	
62-53-3	Aniline	ND	2600	ug/kg	
120-12-7	Anthracene	1340	520	ug/kg	
56-55-3	Benzo(a)anthracene	4750	520	ug/kg	
50-32-8	Benzo(a)pyrene	5790	520	ug/kg	
205-99-2	Benzo(b)fluoranthene	5290	520	ug/kg	
191-24-2	Benzo(g,h,i)perylene	3830	520	ug/kg	
207-08-9	Benzo(k)fluoranthene	4910	520	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1300	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1300	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1300	ug/kg	
106-47-8	4-Chloroaniline	ND	2600	ug/kg	
86-74-8	Carbazole	ND	520	ug/kg	
218-01-9	Chrysene	5090	520	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1300	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1300	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1300	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 1'-3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-5		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 92.1
Method: SW846 8270D SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	1300	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2600	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2600	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1300	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	1150	520	ug/kg	
132-64-9	Dibenzofuran	ND	520	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1300	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1300	ug/kg	
84-66-2	Diethyl phthalate	ND	1300	ug/kg	
131-11-3	Dimethyl phthalate	ND	1300	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1300	ug/kg	
206-44-0	Fluoranthene	8220	520	ug/kg	
86-73-7	Fluorene	546	520	ug/kg	
118-74-1	Hexachlorobenzene	ND	1300	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1300	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2600	ug/kg	
67-72-1	Hexachloroethane	ND	1300	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	3380	520	ug/kg	
78-59-1	Isophorone	ND	1300	ug/kg	
91-57-6	2-Methylnaphthalene	ND	520	ug/kg	
88-74-4	2-Nitroaniline	ND	2600	ug/kg	
99-09-2	3-Nitroaniline	ND	2600	ug/kg	
100-01-6	4-Nitroaniline	ND	2600	ug/kg	
91-20-3	Naphthalene	ND	520	ug/kg	
98-95-3	Nitrobenzene	ND	1300	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1300	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1300	ug/kg	
82-68-8	Pentachloronitrobenzene	ND	2600	ug/kg	
85-01-8	Phenanthrene	3380	520	ug/kg	
129-00-0	Pyrene	7750	520	ug/kg	
110-86-1	Pyridine	ND	2600	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2600	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1300	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	50%		30-130%
4165-62-2	Phenol-d5	51%		30-130%
118-79-6	2,4,6-Tribromophenol	53%		30-130%
4165-60-0	Nitrobenzene-d5	58%		30-130%

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 1'-3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-5		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 92.1
Method: SW846 8270D SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

ABN RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	50%		30-130%
1718-51-0	Terphenyl-d14	56%		30-130%

(a) Elevated RL due to dilution required for matrix interference.

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-7 1'-3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-5		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 92.1
Method: SW846 8082 SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK34185.D	1	01/24/14	NK	01/20/14	OP36602	GBK1124
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	15.1 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	85%		30-150%
877-09-8	Tetrachloro-m-xylene	74%		30-150%
2051-24-3	Decachlorobiphenyl	82%		30-150%
2051-24-3	Decachlorobiphenyl	81%		30-150%

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-7 1'-3'	Date Sampled:	01/17/14
Lab Sample ID:	MC27756-5	Date Received:	01/17/14
Matrix:	SO - Soil	Percent Solids:	92.1
Method:	CT-ETPH 7/06 SW846 3546		
Project:	Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BI31018.D	5	01/24/14	KN	01/20/14	OP36599	GBI1128
Run #2							

Run #	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)	194	89	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

4.9
4

Report of Analysis

Client Sample ID: GP-7 1'-3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-5		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 92.1
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	1.5	0.78	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Barium	44.8	3.9	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Cadmium	< 0.31	0.31	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Chromium	15.0	0.78	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Lead	52.5	0.78	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Mercury	0.037	0.032	mg/kg	1	01/22/14	01/22/14 SA	SW846 7471B ¹	SW846 7471B ³
Selenium	< 0.78	0.78	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Silver	< 0.39	0.39	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ⁴

- (1) Instrument QC Batch: MA16675
- (2) Instrument QC Batch: MA16683
- (3) Prep QC Batch: MP22407
- (4) Prep QC Batch: MP22409

RL = Reporting Limit

4.9
4

Report of Analysis

Client Sample ID: GP-7 1'-3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-5A		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 92.1
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, 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	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Barium	< 0.50	0.50		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Cadmium	< 0.0040	0.0040		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Chromium	< 0.010	0.010		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Lead	0.047	0.010		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Mercury	< 0.00020	0.00020		mg/l	1	01/23/14	01/24/14 SA	SW846 7470A ¹	SW846 7470A ⁴
Selenium	< 0.025	0.025		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Silver	< 0.0050	0.0050		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³

- (1) Instrument QC Batch: MA16685
- (2) Instrument QC Batch: MA16690
- (3) Prep QC Batch: MP22418
- (4) Prep QC Batch: MP22420

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

4.10
4

Report of Analysis

Client Sample ID: GP-8 1'-3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-6		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 89.6
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M62892.D	1	01/23/14	KD	n/a	n/a	MSM2203
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	5.09 g	5.0 ml
Run #2		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	11	ug/kg	
107-13-1	Acrylonitrile	ND	27	ug/kg	
71-43-2	Benzene	ND	0.55	ug/kg	
108-86-1	Bromobenzene	ND	5.5	ug/kg	
75-27-4	Bromodichloromethane	ND	2.2	ug/kg	
75-25-2	Bromoform	ND	2.2	ug/kg	
74-83-9	Bromomethane	ND	2.2	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	ug/kg	
104-51-8	n-Butylbenzene	ND	5.5	ug/kg	
135-98-8	sec-Butylbenzene	ND	5.5	ug/kg	
98-06-6	tert-Butylbenzene	ND	5.5	ug/kg	
75-15-0	Carbon disulfide	ND	5.5	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.2	ug/kg	
108-90-7	Chlorobenzene	ND	2.2	ug/kg	
75-00-3	Chloroethane	ND	5.5	ug/kg	
67-66-3	Chloroform	ND	2.2	ug/kg	
74-87-3	Chloromethane	ND	5.5	ug/kg	
95-49-8	o-Chlorotoluene	ND	5.5	ug/kg	
106-43-4	p-Chlorotoluene	ND	5.5	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.5	ug/kg	
124-48-1	Dibromochloromethane	ND	2.2	ug/kg	
106-93-4	1,2-Dibromoethane	ND	2.2	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	2.2	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	2.2	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	2.2	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	2.2	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.2	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.2	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.2	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.2	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.2	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.2	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 1'-3'	Date Sampled:	01/17/14
Lab Sample ID:	MC27756-6	Date Received:	01/17/14
Matrix:	SO - Soil	Percent Solids:	89.6
Method:	SW846 8260C		
Project:	Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.5	ug/kg	
594-20-7	2,2-Dichloropropane	ND	5.5	ug/kg	
563-58-6	1,1-Dichloropropene	ND	5.5	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.2	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.2	ug/kg	
100-41-4	Ethylbenzene	ND	2.2	ug/kg	
76-13-1	Freon 113	ND	5.5	ug/kg	
87-68-3	Hexachlorobutadiene	ND	5.5	ug/kg	
591-78-6	2-Hexanone	ND	11	ug/kg	
98-82-8	Isopropylbenzene	ND	5.5	ug/kg	
99-87-6	p-Isopropyltoluene	ND	5.5	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.2	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.5	ug/kg	
74-95-3	Methylene bromide	ND	5.5	ug/kg	
75-09-2	Methylene chloride	ND	2.2	ug/kg	
91-20-3	Naphthalene	ND	5.5	ug/kg	
103-65-1	n-Propylbenzene	ND	5.5	ug/kg	
100-42-5	Styrene	ND	5.5	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.5	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.2	ug/kg	
127-18-4	Tetrachloroethene	ND	2.2	ug/kg	
109-99-9	Tetrahydrofuran	ND	11	ug/kg	
108-88-3	Toluene	ND	5.5	ug/kg	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.5	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.5	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.5	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.2	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.2	ug/kg	
79-01-6	Trichloroethene	ND	2.2	ug/kg	
75-69-4	Trichlorofluoromethane	ND	2.2	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	5.5	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	5.5	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	5.5	ug/kg	
75-01-4	Vinyl chloride	ND	2.2	ug/kg	
	m,p-Xylene	ND	2.2	ug/kg	
95-47-6	o-Xylene	ND	2.2	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		70-130%

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 1' -3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-6		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 89.6
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

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VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	90%		70-130%
460-00-4	4-Bromofluorobenzene	85%		70-130%

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 1'-3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-6		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 89.6
Method: SW846 8270D SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R36699.D	5	01/24/14	WK	01/21/14	OP36617	MSR1352
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.6 g	1.0 ml
Run #2		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
95-57-8	2-Chlorophenol	ND	1400	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2700	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2700	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2700	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5400	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2700	ug/kg	
95-48-7	2-Methylphenol	ND	2700	ug/kg	
106-44-5	4-Methylphenol	ND	2700	ug/kg	
88-75-5	2-Nitrophenol	ND	2700	ug/kg	
100-02-7	4-Nitrophenol	ND	5400	ug/kg	
87-86-5	Pentachlorophenol	ND	2700	ug/kg	
108-95-2	Phenol	ND	1400	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2700	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2700	ug/kg	
83-32-9	Acenaphthene	ND	540	ug/kg	
208-96-8	Acenaphthylene	2710	540	ug/kg	
62-53-3	Aniline	ND	2700	ug/kg	
120-12-7	Anthracene	1280	540	ug/kg	
56-55-3	Benzo(a)anthracene	3660	540	ug/kg	
50-32-8	Benzo(a)pyrene	4970	540	ug/kg	
205-99-2	Benzo(b)fluoranthene	4500	540	ug/kg	
191-24-2	Benzo(g,h,i)perylene	3300	540	ug/kg	
207-08-9	Benzo(k)fluoranthene	3560	540	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	ug/kg	
106-47-8	4-Chloroaniline	ND	2700	ug/kg	
86-74-8	Carbazole	ND	540	ug/kg	
218-01-9	Chrysene	4210	540	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	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 1'-3'	Date Sampled:	01/17/14
Lab Sample ID:	MC27756-6	Date Received:	01/17/14
Matrix:	SO - Soil	Percent Solids:	89.6
Method:	SW846 8270D SW846 3546		
Project:	Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	1400	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2700	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2700	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	904	540	ug/kg	
132-64-9	Dibenzofuran	ND	540	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	ug/kg	
206-44-0	Fluoranthene	5450	540	ug/kg	
86-73-7	Fluorene	ND	540	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2700	ug/kg	
67-72-1	Hexachloroethane	ND	1400	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	2750	540	ug/kg	
78-59-1	Isophorone	ND	1400	ug/kg	
91-57-6	2-Methylnaphthalene	ND	540	ug/kg	
88-74-4	2-Nitroaniline	ND	2700	ug/kg	
99-09-2	3-Nitroaniline	ND	2700	ug/kg	
100-01-6	4-Nitroaniline	ND	2700	ug/kg	
91-20-3	Naphthalene	ND	540	ug/kg	
98-95-3	Nitrobenzene	ND	1400	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	ug/kg	
82-68-8	Pentachloronitrobenzene	ND	2700	ug/kg	
85-01-8	Phenanthrene	1740	540	ug/kg	
129-00-0	Pyrene	6440	540	ug/kg	
110-86-1	Pyridine	ND	2700	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2700	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1400	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	55%		30-130%
4165-62-2	Phenol-d5	58%		30-130%
118-79-6	2,4,6-Tribromophenol	55%		30-130%
4165-60-0	Nitrobenzene-d5	64%		30-130%

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 1' -3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-6		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 89.6
Method: SW846 8270D SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

ABN RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	57%		30-130%
1718-51-0	Terphenyl-d14	60%		30-130%

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

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Report of Analysis

Client Sample ID: GP-8 1'-3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-6		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 89.6
Method: SW846 8082 SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK34186.D	1	01/24/14	NK	01/20/14	OP36602	GBK1124
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	15.9 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	43.5	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	56%		30-150%
877-09-8	Tetrachloro-m-xylene	53%		30-150%
2051-24-3	Decachlorobiphenyl	52%		30-150%
2051-24-3	Decachlorobiphenyl	52%		30-150%

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 1' -3'	Date Sampled:	01/17/14
Lab Sample ID:	MC27756-6	Date Received:	01/17/14
Matrix:	SO - Soil	Percent Solids:	89.6
Method:	CT-ETPH 7/06 SW846 3546		
Project:	Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BI31013.D	5	01/24/14	KN	01/20/14	OP36599	GBI1127
Run #2							

Run #	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)	423	91	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	60%		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 1'-3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-6		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 89.6
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	2.0	0.90	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Barium	38.9	4.5	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Cadmium	< 0.36	0.36	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Chromium	12.6	0.90	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Lead	57.3	0.90	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Mercury	< 0.033	0.033	mg/kg	1	01/22/14	01/22/14 SA	SW846 7471B ¹	SW846 7471B ³
Selenium	< 0.90	0.90	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Silver	< 0.45	0.45	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ⁴

- (1) Instrument QC Batch: MA16675
- (2) Instrument QC Batch: MA16683
- (3) Prep QC Batch: MP22407
- (4) Prep QC Batch: MP22409

RL = Reporting Limit

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Report of Analysis

Client Sample ID: GP-8 1'-3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-6A		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 89.6
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, 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	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Barium	< 0.50	0.50		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Cadmium	< 0.0040	0.0040		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Chromium	0.011	0.010		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Lead	0.023	0.010		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Mercury	< 0.00020	0.00020		mg/l	1	01/23/14	01/24/14 SA	SW846 7470A ¹	SW846 7470A ⁴
Selenium	< 0.025	0.025		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Silver	< 0.0050	0.0050		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³

- (1) Instrument QC Batch: MA16685
- (2) Instrument QC Batch: MA16690
- (3) Prep QC Batch: MP22418
- (4) Prep QC Batch: MP22420

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

Report of Analysis

Client Sample ID: GP-9 1'-3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-7		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 88.3
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M62893.D	1	01/23/14	KD	n/a	n/a	MSM2203
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	5.11 g	5.0 ml
Run #2		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	110	11	ug/kg	
107-13-1	Acrylonitrile	ND	28	ug/kg	
71-43-2	Benzene	ND	0.55	ug/kg	
108-86-1	Bromobenzene	ND	5.5	ug/kg	
75-27-4	Bromodichloromethane	ND	2.2	ug/kg	
75-25-2	Bromoform	ND	2.2	ug/kg	
74-83-9	Bromomethane	ND	2.2	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	ug/kg	
104-51-8	n-Butylbenzene	ND	5.5	ug/kg	
135-98-8	sec-Butylbenzene	ND	5.5	ug/kg	
98-06-6	tert-Butylbenzene	ND	5.5	ug/kg	
75-15-0	Carbon disulfide	ND	5.5	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.2	ug/kg	
108-90-7	Chlorobenzene	ND	2.2	ug/kg	
75-00-3	Chloroethane	ND	5.5	ug/kg	
67-66-3	Chloroform	ND	2.2	ug/kg	
74-87-3	Chloromethane	ND	5.5	ug/kg	
95-49-8	o-Chlorotoluene	ND	5.5	ug/kg	
106-43-4	p-Chlorotoluene	ND	5.5	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.5	ug/kg	
124-48-1	Dibromochloromethane	ND	2.2	ug/kg	
106-93-4	1,2-Dibromoethane	ND	2.2	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	2.2	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	2.2	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	2.2	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	2.2	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.2	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.2	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.2	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.2	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.2	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.2	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 1'-3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-7		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 88.3
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.5	ug/kg	
594-20-7	2,2-Dichloropropane	ND	5.5	ug/kg	
563-58-6	1,1-Dichloropropene	ND	5.5	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.2	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.2	ug/kg	
100-41-4	Ethylbenzene	ND	2.2	ug/kg	
76-13-1	Freon 113	ND	5.5	ug/kg	
87-68-3	Hexachlorobutadiene	ND	5.5	ug/kg	
591-78-6	2-Hexanone	ND	11	ug/kg	
98-82-8	Isopropylbenzene	ND	5.5	ug/kg	
99-87-6	p-Isopropyltoluene	ND	5.5	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.2	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.5	ug/kg	
74-95-3	Methylene bromide	ND	5.5	ug/kg	
75-09-2	Methylene chloride	ND	2.2	ug/kg	
91-20-3	Naphthalene	ND	5.5	ug/kg	
103-65-1	n-Propylbenzene	ND	5.5	ug/kg	
100-42-5	Styrene	ND	5.5	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.5	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.2	ug/kg	
127-18-4	Tetrachloroethene	ND	2.2	ug/kg	
109-99-9	Tetrahydrofuran	ND	11	ug/kg	
108-88-3	Toluene	ND	5.5	ug/kg	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.5	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.5	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.5	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.2	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.2	ug/kg	
79-01-6	Trichloroethene	ND	2.2	ug/kg	
75-69-4	Trichlorofluoromethane	ND	2.2	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	5.5	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	5.5	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	5.5	ug/kg	
75-01-4	Vinyl chloride	ND	2.2	ug/kg	
	m,p-Xylene	ND	2.2	ug/kg	
95-47-6	o-Xylene	ND	2.2	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		70-130%

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 1'-3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-7		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 88.3
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

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VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	89%		70-130%
460-00-4	4-Bromofluorobenzene	83%		70-130%

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 1'-3'		
Lab Sample ID: MC27756-7		Date Sampled: 01/17/14
Matrix: SO - Soil		Date Received: 01/17/14
Method: SW846 8270D SW846 3546		Percent Solids: 88.3
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R36700.D	1	01/24/14	WK	01/21/14	OP36617	MSR1352
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	1100	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	1100	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	222	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	509	110	ug/kg	
50-32-8	Benzo(a)pyrene	593	110	ug/kg	
205-99-2	Benzo(b)fluoranthene	533	110	ug/kg	
191-24-2	Benzo(g,h,i)perylene	385	110	ug/kg	
207-08-9	Benzo(k)fluoranthene	582	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	589	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-9 1' -3'	Date Sampled:	01/17/14
Lab Sample ID:	MC27756-7	Date Received:	01/17/14
Matrix:	SO - Soil	Percent Solids:	88.3
Method:	SW846 8270D SW846 3546		
Project:	Bridge No. 1127-Rte 80 Over Farm River North Branford, 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	280	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	122	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	900	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	358	110	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	283	110	ug/kg	
129-00-0	Pyrene	900	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	66%		30-130%
4165-62-2	Phenol-d5	68%		30-130%
118-79-6	2,4,6-Tribromophenol	74%		30-130%
4165-60-0	Nitrobenzene-d5	78%		30-130%

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 1' -3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-7		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 88.3
Method: SW846 8270D SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

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ABN RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	70%		30-130%
1718-51-0	Terphenyl-d14	80%		30-130%

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 1'-3'	Date Sampled:	01/17/14
Lab Sample ID:	MC27756-7	Date Received:	01/17/14
Matrix:	SO - Soil	Percent Solids:	88.3
Method:	CT-ETPH 7/06 SW846 3546		
Project:	Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BI31005.D	1	01/24/14	KN	01/20/14	OP36599	GBI1127
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.3 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-ETPH (C9-C36)	67.0	19	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	67%		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
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Report of Analysis

Client Sample ID: GP-9 1' -3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-7		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 88.3
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	2.1	0.91	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Barium	53.9	4.6	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Cadmium	< 0.37	0.37	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Chromium	15.8	0.91	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Lead	35.5	0.91	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Mercury	0.090	0.033	mg/kg	1	01/22/14	01/22/14 SA	SW846 7471B ¹	SW846 7471B ³
Selenium	< 0.91	0.91	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Silver	< 0.46	0.46	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ⁴

- (1) Instrument QC Batch: MA16675
- (2) Instrument QC Batch: MA16683
- (3) Prep QC Batch: MP22407
- (4) Prep QC Batch: MP22409

RL = Reporting Limit

Report of Analysis

Client Sample ID: GP-9 1'-3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-7A		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 88.3
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, 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	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Barium	< 0.50	0.50		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Cadmium	< 0.0040	0.0040		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Chromium	< 0.010	0.010		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Lead	< 0.010	0.010		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Mercury	< 0.00020	0.00020		mg/l	1	01/23/14	01/24/14 SA	SW846 7470A ¹	SW846 7470A ⁴
Selenium	< 0.025	0.025		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Silver	< 0.0050	0.0050		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³

- (1) Instrument QC Batch: MA16685
- (2) Instrument QC Batch: MA16690
- (3) Prep QC Batch: MP22418
- (4) Prep QC Batch: MP22420

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

Report of Analysis

Client Sample ID: GP-10 1'-3'		
Lab Sample ID: MC27756-8		Date Sampled: 01/17/14
Matrix: SO - Soil		Date Received: 01/17/14
Method: SW846 8260C		Percent Solids: 86.9
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M62894.D	1	01/23/14	KD	n/a	n/a	MSM2203
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	5.01 g	5.0 ml
Run #2		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	54.5	11	ug/kg	
107-13-1	Acrylonitrile	ND	29	ug/kg	
71-43-2	Benzene	ND	0.57	ug/kg	
108-86-1	Bromobenzene	ND	5.7	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	11	ug/kg	
104-51-8	n-Butylbenzene	ND	5.7	ug/kg	
135-98-8	sec-Butylbenzene	ND	5.7	ug/kg	
98-06-6	tert-Butylbenzene	ND	5.7	ug/kg	
75-15-0	Carbon disulfide	ND	5.7	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	5.7	ug/kg	
67-66-3	Chloroform	ND	2.3	ug/kg	
74-87-3	Chloromethane	ND	5.7	ug/kg	
95-49-8	o-Chlorotoluene	ND	5.7	ug/kg	
106-43-4	p-Chlorotoluene	ND	5.7	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.7	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-10 1'-3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-8		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 86.9
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.7	ug/kg	
594-20-7	2,2-Dichloropropane	ND	5.7	ug/kg	
563-58-6	1,1-Dichloropropene	ND	5.7	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	5.7	ug/kg	
87-68-3	Hexachlorobutadiene	ND	5.7	ug/kg	
591-78-6	2-Hexanone	ND	11	ug/kg	
98-82-8	Isopropylbenzene	ND	5.7	ug/kg	
99-87-6	p-Isopropyltoluene	ND	5.7	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.3	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.7	ug/kg	
74-95-3	Methylene bromide	ND	5.7	ug/kg	
75-09-2	Methylene chloride	ND	2.3	ug/kg	
91-20-3	Naphthalene	ND	5.7	ug/kg	
103-65-1	n-Propylbenzene	ND	5.7	ug/kg	
100-42-5	Styrene	ND	5.7	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.7	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	11	ug/kg	
108-88-3	Toluene	ND	5.7	ug/kg	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.7	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.7	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.7	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	5.7	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	5.7	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	5.7	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	93%		70-130%

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 1'-3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-8		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 86.9
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

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VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	87%		70-130%
460-00-4	4-Bromofluorobenzene	84%		70-130%

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 1'-3'		
Lab Sample ID: MC27756-8		Date Sampled: 01/17/14
Matrix: SO - Soil		Date Received: 01/17/14
Method: SW846 8270D SW846 3546		Percent Solids: 86.9
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R36701.D	1	01/24/14	WK	01/21/14	OP36617	MSR1352
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	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	1100	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	1100	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	310	110	ug/kg	
62-53-3	Aniline	ND	560	ug/kg	
120-12-7	Anthracene	159	110	ug/kg	
56-55-3	Benzo(a)anthracene	702	110	ug/kg	
50-32-8	Benzo(a)pyrene	792	110	ug/kg	
205-99-2	Benzo(b)fluoranthene	846	110	ug/kg	
191-24-2	Benzo(g,h,i)perylene	504	110	ug/kg	
207-08-9	Benzo(k)fluoranthene	632	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	825	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-10 1'-3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-8		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 86.9
Method: SW846 8270D SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, 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	280	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	154	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	1340	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	461	110	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	439	110	ug/kg	
129-00-0	Pyrene	1350	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	73%		30-130%
4165-62-2	Phenol-d5	75%		30-130%
118-79-6	2,4,6-Tribromophenol	80%		30-130%
4165-60-0	Nitrobenzene-d5	87%		30-130%

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 1'-3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-8		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 86.9
Method: SW846 8270D SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

ABN RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	78%		30-130%
1718-51-0	Terphenyl-d14	85%		30-130%

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 1'-3'	Date Sampled:	01/17/14
Lab Sample ID:	MC27756-8	Date Received:	01/17/14
Matrix:	SO - Soil	Percent Solids:	86.9
Method:	CT-ETPH 7/06 SW846 3546		
Project:	Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BI31007.D	1	01/24/14	KN	01/20/14	OP36599	GBI1127
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)	91.7	19	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

4.15
4

Report of Analysis

Client Sample ID: GP-10 1'-3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-8		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 86.9
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	2.1	0.93	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Barium	62.3	4.6	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Cadmium	< 0.37	0.37	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Chromium	17.1	0.93	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Lead	43.8	0.93	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Mercury	0.078	0.037	mg/kg	1	01/22/14	01/22/14 SA	SW846 7471B ¹	SW846 7471B ³
Selenium	< 0.93	0.93	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Silver	< 0.46	0.46	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ⁴

- (1) Instrument QC Batch: MA16675
- (2) Instrument QC Batch: MA16683
- (3) Prep QC Batch: MP22407
- (4) Prep QC Batch: MP22409

RL = Reporting Limit

4.15
4

Report of Analysis

Client Sample ID: GP-10 1'-3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-8A		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 86.9
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, 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	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Barium	< 0.50	0.50		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Cadmium	< 0.0040	0.0040		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Chromium	< 0.010	0.010		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Lead	< 0.010	0.010		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Mercury	< 0.00020	0.00020		mg/l	1	01/23/14	01/24/14 SA	SW846 7470A ¹	SW846 7470A ⁴
Selenium	< 0.025	0.025		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Silver	< 0.0050	0.0050		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³

- (1) Instrument QC Batch: MA16685
- (2) Instrument QC Batch: MA16690
- (3) Prep QC Batch: MP22418
- (4) Prep QC Batch: MP22420

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

Report of Analysis

Client Sample ID: GP-11 2'-4'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-9		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 89.2
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M62895.D	1	01/23/14	KD	n/a	n/a	MSM2203
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	5.14 g	5.0 ml
Run #2		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	11	ug/kg	
107-13-1	Acrylonitrile	ND	27	ug/kg	
71-43-2	Benzene	ND	0.55	ug/kg	
108-86-1	Bromobenzene	ND	5.5	ug/kg	
75-27-4	Bromodichloromethane	ND	2.2	ug/kg	
75-25-2	Bromoform	ND	2.2	ug/kg	
74-83-9	Bromomethane	ND	2.2	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	ug/kg	
104-51-8	n-Butylbenzene	ND	5.5	ug/kg	
135-98-8	sec-Butylbenzene	ND	5.5	ug/kg	
98-06-6	tert-Butylbenzene	ND	5.5	ug/kg	
75-15-0	Carbon disulfide	ND	5.5	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.2	ug/kg	
108-90-7	Chlorobenzene	ND	2.2	ug/kg	
75-00-3	Chloroethane	ND	5.5	ug/kg	
67-66-3	Chloroform	ND	2.2	ug/kg	
74-87-3	Chloromethane	ND	5.5	ug/kg	
95-49-8	o-Chlorotoluene	ND	5.5	ug/kg	
106-43-4	p-Chlorotoluene	ND	5.5	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.5	ug/kg	
124-48-1	Dibromochloromethane	ND	2.2	ug/kg	
106-93-4	1,2-Dibromoethane	ND	2.2	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	2.2	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	2.2	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	2.2	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	2.2	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.2	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.2	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.2	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.2	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.2	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.2	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-11 2' -4'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-9		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 89.2
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.5	ug/kg	
594-20-7	2,2-Dichloropropane	ND	5.5	ug/kg	
563-58-6	1,1-Dichloropropene	ND	5.5	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.2	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.2	ug/kg	
100-41-4	Ethylbenzene	ND	2.2	ug/kg	
76-13-1	Freon 113	ND	5.5	ug/kg	
87-68-3	Hexachlorobutadiene	ND	5.5	ug/kg	
591-78-6	2-Hexanone	ND	11	ug/kg	
98-82-8	Isopropylbenzene	ND	5.5	ug/kg	
99-87-6	p-Isopropyltoluene	ND	5.5	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.2	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.5	ug/kg	
74-95-3	Methylene bromide	ND	5.5	ug/kg	
75-09-2	Methylene chloride	ND	2.2	ug/kg	
91-20-3	Naphthalene	ND	5.5	ug/kg	
103-65-1	n-Propylbenzene	ND	5.5	ug/kg	
100-42-5	Styrene	ND	5.5	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.5	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.2	ug/kg	
127-18-4	Tetrachloroethene	ND	2.2	ug/kg	
109-99-9	Tetrahydrofuran	ND	11	ug/kg	
108-88-3	Toluene	ND	5.5	ug/kg	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.5	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.5	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.5	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.2	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.2	ug/kg	
79-01-6	Trichloroethene	ND	2.2	ug/kg	
75-69-4	Trichlorofluoromethane	ND	2.2	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	5.5	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	5.5	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	5.5	ug/kg	
75-01-4	Vinyl chloride	ND	2.2	ug/kg	
	m,p-Xylene	ND	2.2	ug/kg	
95-47-6	o-Xylene	ND	2.2	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		70-130%

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-11 2' -4'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-9		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 89.2
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

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VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	88%		70-130%
460-00-4	4-Bromofluorobenzene	84%		70-130%

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-11 2' -4'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-9		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 89.2
Method: SW846 8270D SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	R36702.D	5	01/24/14	WK	01/21/14	OP36617	MSR1352
Run #2							

Run #	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	1300	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2700	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2700	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2700	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5400	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2700	ug/kg	
95-48-7	2-Methylphenol	ND	2700	ug/kg	
106-44-5	4-Methylphenol	ND	2700	ug/kg	
88-75-5	2-Nitrophenol	ND	2700	ug/kg	
100-02-7	4-Nitrophenol	ND	5400	ug/kg	
87-86-5	Pentachlorophenol	ND	2700	ug/kg	
108-95-2	Phenol	ND	1300	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2700	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2700	ug/kg	
83-32-9	Acenaphthene	ND	540	ug/kg	
208-96-8	Acenaphthylene	ND	540	ug/kg	
62-53-3	Aniline	ND	2700	ug/kg	
120-12-7	Anthracene	ND	540	ug/kg	
56-55-3	Benzo(a)anthracene	809	540	ug/kg	
50-32-8	Benzo(a)pyrene	923	540	ug/kg	
205-99-2	Benzo(b)fluoranthene	945	540	ug/kg	
191-24-2	Benzo(g,h,i)perylene	633	540	ug/kg	
207-08-9	Benzo(k)fluoranthene	777	540	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1300	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1300	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1300	ug/kg	
106-47-8	4-Chloroaniline	ND	2700	ug/kg	
86-74-8	Carbazole	ND	540	ug/kg	
218-01-9	Chrysene	918	540	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1300	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1300	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1300	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-11 2' -4'	Date Sampled:	01/17/14
Lab Sample ID:	MC27756-9	Date Received:	01/17/14
Matrix:	SO - Soil	Percent Solids:	89.2
Method:	SW846 8270D SW846 3546		
Project:	Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	1300	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2700	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2700	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1300	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	540	ug/kg	
132-64-9	Dibenzofuran	ND	540	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1300	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1300	ug/kg	
84-66-2	Diethyl phthalate	ND	1300	ug/kg	
131-11-3	Dimethyl phthalate	ND	1300	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1300	ug/kg	
206-44-0	Fluoranthene	1490	540	ug/kg	
86-73-7	Fluorene	ND	540	ug/kg	
118-74-1	Hexachlorobenzene	ND	1300	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1300	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2700	ug/kg	
67-72-1	Hexachloroethane	ND	1300	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	554	540	ug/kg	
78-59-1	Isophorone	ND	1300	ug/kg	
91-57-6	2-Methylnaphthalene	ND	540	ug/kg	
88-74-4	2-Nitroaniline	ND	2700	ug/kg	
99-09-2	3-Nitroaniline	ND	2700	ug/kg	
100-01-6	4-Nitroaniline	ND	2700	ug/kg	
91-20-3	Naphthalene	ND	540	ug/kg	
98-95-3	Nitrobenzene	ND	1300	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1300	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1300	ug/kg	
82-68-8	Pentachloronitrobenzene	ND	2700	ug/kg	
85-01-8	Phenanthrene	ND	540	ug/kg	
129-00-0	Pyrene	1470	540	ug/kg	
110-86-1	Pyridine	ND	2700	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2700	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1300	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	65%		30-130%
4165-62-2	Phenol-d5	67%		30-130%
118-79-6	2,4,6-Tribromophenol	65%		30-130%
4165-60-0	Nitrobenzene-d5	76%		30-130%

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-11 2' -4'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-9		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 89.2
Method: SW846 8270D SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

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ABN RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	64%		30-130%
1718-51-0	Terphenyl-d14	70%		30-130%

(a) Elevated RL due to dilution required for matrix interference.

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-11 2' -4'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-9		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 89.2
Method: CT-ETPH 7/06 SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BI31019.D	1	01/24/14	KN	01/20/14	OP36599	GBI1127
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)	95.1	18	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	64%		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-11 2' -4'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-9		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 89.2
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	2.1	0.91	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Barium	62.7	4.6	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Cadmium	< 0.36	0.36	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Chromium	22.6	0.91	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Lead	38.8	0.91	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Mercury	0.081	0.034	mg/kg	1	01/22/14	01/22/14 SA	SW846 7471B ¹	SW846 7471B ³
Selenium	< 0.91	0.91	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Silver	< 0.46	0.46	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ⁴

- (1) Instrument QC Batch: MA16675
- (2) Instrument QC Batch: MA16683
- (3) Prep QC Batch: MP22407
- (4) Prep QC Batch: MP22409

RL = Reporting Limit

4.17
4

Report of Analysis

Client Sample ID: GP-11 2' -4'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-9A		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 89.2
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, 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	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Barium	< 0.50	0.50		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Cadmium	< 0.0040	0.0040		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Chromium	< 0.010	0.010		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Lead	0.010	0.010		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Mercury	< 0.00020	0.00020		mg/l	1	01/23/14	01/24/14 SA	SW846 7470A ¹	SW846 7470A ⁴
Selenium	< 0.025	0.025		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Silver	< 0.0050	0.0050		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³

- (1) Instrument QC Batch: MA16685
- (2) Instrument QC Batch: MA16690
- (3) Prep QC Batch: MP22418
- (4) Prep QC Batch: MP22420

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

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Report of Analysis

Client Sample ID: GP-12 2' -4'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-10		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 87.4
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M62896.D	1	01/23/14	KD	n/a	n/a	MSM2203
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	5.00 g	5.0 ml
Run #2		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	98.8	11	ug/kg	
107-13-1	Acrylonitrile	ND	29	ug/kg	
71-43-2	Benzene	ND	0.57	ug/kg	
108-86-1	Bromobenzene	ND	5.7	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	11	ug/kg	
104-51-8	n-Butylbenzene	ND	5.7	ug/kg	
135-98-8	sec-Butylbenzene	ND	5.7	ug/kg	
98-06-6	tert-Butylbenzene	ND	5.7	ug/kg	
75-15-0	Carbon disulfide	ND	5.7	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	5.7	ug/kg	
67-66-3	Chloroform	ND	2.3	ug/kg	
74-87-3	Chloromethane	ND	5.7	ug/kg	
95-49-8	o-Chlorotoluene	ND	5.7	ug/kg	
106-43-4	p-Chlorotoluene	ND	5.7	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.7	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-12 2' -4'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-10		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 87.4
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.7	ug/kg	
594-20-7	2,2-Dichloropropane	ND	5.7	ug/kg	
563-58-6	1,1-Dichloropropene	ND	5.7	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	5.7	ug/kg	
87-68-3	Hexachlorobutadiene	ND	5.7	ug/kg	
591-78-6	2-Hexanone	ND	11	ug/kg	
98-82-8	Isopropylbenzene	ND	5.7	ug/kg	
99-87-6	p-Isopropyltoluene	ND	5.7	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.3	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.7	ug/kg	
74-95-3	Methylene bromide	ND	5.7	ug/kg	
75-09-2	Methylene chloride	ND	2.3	ug/kg	
91-20-3	Naphthalene	ND	5.7	ug/kg	
103-65-1	n-Propylbenzene	ND	5.7	ug/kg	
100-42-5	Styrene	ND	5.7	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.7	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	11	ug/kg	
108-88-3	Toluene	ND	5.7	ug/kg	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.7	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.7	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.7	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	5.7	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	5.7	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	5.7	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	95%		70-130%

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
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Report of Analysis

Client Sample ID: GP-12 2' -4'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-10		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 87.4
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

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VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	89%		70-130%
460-00-4	4-Bromofluorobenzene	82%		70-130%

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 2' -4'		
Lab Sample ID: MC27756-10		Date Sampled: 01/17/14
Matrix: SO - Soil		Date Received: 01/17/14
Method: SW846 8270D SW846 3546		Percent Solids: 87.4
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R36703.D	5	01/24/14	WK	01/21/14	OP36617	MSR1352
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	1400	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2800	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2800	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2800	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5600	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2800	ug/kg	
95-48-7	2-Methylphenol	ND	2800	ug/kg	
106-44-5	4-Methylphenol	ND	2800	ug/kg	
88-75-5	2-Nitrophenol	ND	2800	ug/kg	
100-02-7	4-Nitrophenol	ND	5600	ug/kg	
87-86-5	Pentachlorophenol	ND	2800	ug/kg	
108-95-2	Phenol	ND	1400	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2800	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2800	ug/kg	
83-32-9	Acenaphthene	ND	560	ug/kg	
208-96-8	Acenaphthylene	ND	560	ug/kg	
62-53-3	Aniline	ND	2800	ug/kg	
120-12-7	Anthracene	ND	560	ug/kg	
56-55-3	Benzo(a)anthracene	920	560	ug/kg	
50-32-8	Benzo(a)pyrene	978	560	ug/kg	
205-99-2	Benzo(b)fluoranthene	1050	560	ug/kg	
191-24-2	Benzo(g,h,i)perylene	643	560	ug/kg	
207-08-9	Benzo(k)fluoranthene	847	560	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	ug/kg	
106-47-8	4-Chloroaniline	ND	2800	ug/kg	
86-74-8	Carbazole	ND	560	ug/kg	
218-01-9	Chrysene	1040	560	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	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 2' -4'	Date Sampled:	01/17/14
Lab Sample ID:	MC27756-10	Date Received:	01/17/14
Matrix:	SO - Soil	Percent Solids:	87.4
Method:	SW846 8270D SW846 3546		
Project:	Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	1400	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2800	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2800	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	560	ug/kg	
132-64-9	Dibenzofuran	ND	560	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	ug/kg	
206-44-0	Fluoranthene	1780	560	ug/kg	
86-73-7	Fluorene	ND	560	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2800	ug/kg	
67-72-1	Hexachloroethane	ND	1400	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	581	560	ug/kg	
78-59-1	Isophorone	ND	1400	ug/kg	
91-57-6	2-Methylnaphthalene	ND	560	ug/kg	
88-74-4	2-Nitroaniline	ND	2800	ug/kg	
99-09-2	3-Nitroaniline	ND	2800	ug/kg	
100-01-6	4-Nitroaniline	ND	2800	ug/kg	
91-20-3	Naphthalene	ND	560	ug/kg	
98-95-3	Nitrobenzene	ND	1400	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	ug/kg	
82-68-8	Pentachloronitrobenzene	ND	2800	ug/kg	
85-01-8	Phenanthrene	690	560	ug/kg	
129-00-0	Pyrene	1660	560	ug/kg	
110-86-1	Pyridine	ND	2800	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2800	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1400	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	55%		30-130%
4165-62-2	Phenol-d5	56%		30-130%
118-79-6	2,4,6-Tribromophenol	54%		30-130%
4165-60-0	Nitrobenzene-d5	64%		30-130%

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 2' -4'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-10		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 87.4
Method: SW846 8270D SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

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ABN RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	54%		30-130%
1718-51-0	Terphenyl-d14	59%		30-130%

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 2' -4'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-10		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 87.4
Method: CT-ETPH 7/06 SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BI31012.D	5	01/24/14	KN	01/20/14	OP36599	GBI1128
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)	110	91	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	57%		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
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Report of Analysis

Client Sample ID: GP-12 2' -4'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-10		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 87.4
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	2.1	0.89	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ³
Barium	53.1	4.5	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ³
Cadmium	< 0.36	0.36	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ³
Chromium	17.4	0.89	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ³
Lead	69.4	0.89	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ³
Mercury	< 0.036	0.036	mg/kg	1	01/23/14	01/23/14 SA	SW846 7471B ¹	SW846 7471B ⁴
Selenium	< 0.89	0.89	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ³
Silver	< 0.45	0.45	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ³

- (1) Instrument QC Batch: MA16681
- (2) Instrument QC Batch: MA16683
- (3) Prep QC Batch: MP22409
- (4) Prep QC Batch: MP22414

RL = Reporting Limit

4.19
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Report of Analysis

Client Sample ID: GP-12 2' -4'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-10A		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 87.4
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

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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	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Barium	< 0.50	0.50		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Cadmium	< 0.0040	0.0040		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Chromium	< 0.010	0.010		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Lead	0.012	0.010		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Mercury	< 0.00020	0.00020		mg/l	1	01/23/14	01/24/14 SA	SW846 7470A ¹	SW846 7470A ⁴
Selenium	< 0.025	0.025		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Silver	< 0.0050	0.0050		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³

- (1) Instrument QC Batch: MA16685
- (2) Instrument QC Batch: MA16690
- (3) Prep QC Batch: MP22418
- (4) Prep QC Batch: MP22420

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

Report of Analysis

Client Sample ID: GP-15 1'-3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-11		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 83.5
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M62897.D	1	01/23/14	KD	n/a	n/a	MSM2203
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	4.89 g	5.0 ml
Run #2		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	49.3	12	ug/kg	
107-13-1	Acrylonitrile	ND	31	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	12	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-15 1'-3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-11		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 83.5
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, 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	ND	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	89%		70-130%

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 1'-3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-11		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 83.5
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

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VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	90%		70-130%
460-00-4	4-Bromofluorobenzene	84%		70-130%

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 1'-3'		
Lab Sample ID: MC27756-11		Date Sampled: 01/17/14
Matrix: SO - Soil		Date Received: 01/17/14
Method: SW846 8270D SW846 3546		Percent Solids: 83.5
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R36704.D	5	01/24/14	WK	01/21/14	OP36617	MSR1352
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	1500	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	3000	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	3000	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	3000	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	6000	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	3000	ug/kg	
95-48-7	2-Methylphenol	ND	3000	ug/kg	
106-44-5	4-Methylphenol	ND	3000	ug/kg	
88-75-5	2-Nitrophenol	ND	3000	ug/kg	
100-02-7	4-Nitrophenol	ND	6000	ug/kg	
87-86-5	Pentachlorophenol	ND	3000	ug/kg	
108-95-2	Phenol	ND	1500	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	3000	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	3000	ug/kg	
83-32-9	Acenaphthene	ND	600	ug/kg	
208-96-8	Acenaphthylene	7560	600	ug/kg	
62-53-3	Aniline	ND	3000	ug/kg	
120-12-7	Anthracene	5710	600	ug/kg	
56-55-3	Benzo(a)anthracene	18600	600	ug/kg	
50-32-8	Benzo(a)pyrene	17100	600	ug/kg	
205-99-2	Benzo(b)fluoranthene	19100	600	ug/kg	
191-24-2	Benzo(g,h,i)perylene	8610	600	ug/kg	
207-08-9	Benzo(k)fluoranthene	13900	600	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1500	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1500	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1500	ug/kg	
106-47-8	4-Chloroaniline	ND	3000	ug/kg	
86-74-8	Carbazole	2690	600	ug/kg	
218-01-9	Chrysene	19700	600	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1500	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1500	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1500	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 1'-3'	Date Sampled:	01/17/14
Lab Sample ID:	MC27756-11	Date Received:	01/17/14
Matrix:	SO - Soil	Percent Solids:	83.5
Method:	SW846 8270D SW846 3546		
Project:	Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	1500	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	3000	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	3000	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1500	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	3010	600	ug/kg	
132-64-9	Dibenzofuran	1390	600	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1500	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1500	ug/kg	
84-66-2	Diethyl phthalate	ND	1500	ug/kg	
131-11-3	Dimethyl phthalate	ND	1500	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1500	ug/kg	
206-44-0	Fluoranthene	43500	600	ug/kg	
86-73-7	Fluorene	1660	600	ug/kg	
118-74-1	Hexachlorobenzene	ND	1500	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1500	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	3000	ug/kg	
67-72-1	Hexachloroethane	ND	1500	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	8620	600	ug/kg	
78-59-1	Isophorone	ND	1500	ug/kg	
91-57-6	2-Methylnaphthalene	684	600	ug/kg	
88-74-4	2-Nitroaniline	ND	3000	ug/kg	
99-09-2	3-Nitroaniline	ND	3000	ug/kg	
100-01-6	4-Nitroaniline	ND	3000	ug/kg	
91-20-3	Naphthalene	661	600	ug/kg	
98-95-3	Nitrobenzene	ND	1500	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1500	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1500	ug/kg	
82-68-8	Pentachloronitrobenzene	ND	3000	ug/kg	
85-01-8	Phenanthrene	29400	600	ug/kg	
129-00-0	Pyrene	34000	600	ug/kg	
110-86-1	Pyridine	ND	3000	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	3000	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1500	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	49%		30-130%
4165-62-2	Phenol-d5	55%		30-130%
118-79-6	2,4,6-Tribromophenol	54%		30-130%
4165-60-0	Nitrobenzene-d5	59%		30-130%

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 1'-3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-11		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 83.5
Method: SW846 8270D SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

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ABN RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	56%		30-130%
1718-51-0	Terphenyl-d14	57%		30-130%

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 1'-3'		
Lab Sample ID: MC27756-11		Date Sampled: 01/17/14
Matrix: SO - Soil		Date Received: 01/17/14
Method: SW846 8082 SW846 3546		Percent Solids: 83.5
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK34190.D	1	01/24/14	NK	01/20/14	OP36602	GBK1124
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	15.5 g	10.0 ml
Run #2		

CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	39	ug/kg	
11104-28-2	Aroclor 1221	ND	39	ug/kg	
11141-16-5	Aroclor 1232	ND	39	ug/kg	
53469-21-9	Aroclor 1242	ND	39	ug/kg	
12672-29-6	Aroclor 1248	ND	39	ug/kg	
11097-69-1	Aroclor 1254	ND	39	ug/kg	
11096-82-5	Aroclor 1260	ND	39	ug/kg	
37324-23-5	Aroclor 1262	ND	39	ug/kg	
11100-14-4	Aroclor 1268	ND	39	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	65%		30-150%
877-09-8	Tetrachloro-m-xylene	54%		30-150%
2051-24-3	Decachlorobiphenyl	62%		30-150%
2051-24-3	Decachlorobiphenyl	70%		30-150%

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-15 1'-3'	Date Sampled: 01/17/14
Lab Sample ID: MC27756-11	Date Received: 01/17/14
Matrix: SO - Soil	Percent Solids: 83.5
Method: CT-ETPH 7/06 SW846 3546	
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BI31017.D	5	01/24/14	KN	01/20/14	OP36599	GBI1127
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)	1760	99	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	54%		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-15 1'-3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-11		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 83.5
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	2.2	0.96	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ³
Barium	43.8	4.8	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ³
Cadmium	0.54	0.38	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ³
Chromium	28.3	0.96	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ³
Lead	88.1	0.96	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ³
Mercury	< 0.037	0.037	mg/kg	1	01/23/14	01/23/14 SA	SW846 7471B ¹	SW846 7471B ⁴
Selenium	< 0.96	0.96	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ³
Silver	< 0.48	0.48	mg/kg	1	01/22/14	01/22/14 EAL	SW846 6010C ²	SW846 3050B ³

- (1) Instrument QC Batch: MA16681
- (2) Instrument QC Batch: MA16683
- (3) Prep QC Batch: MP22409
- (4) Prep QC Batch: MP22414

RL = Reporting Limit

4.21
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Report of Analysis

Client Sample ID: GP-15 1'-3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-11A		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 83.5
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, 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	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Barium	< 0.50	0.50		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Cadmium	< 0.0040	0.0040		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Chromium	< 0.010	0.010		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Lead	0.044	0.010		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Mercury	< 0.00020	0.00020		mg/l	1	01/23/14	01/24/14 SA	SW846 7470A ¹	SW846 7470A ⁴
Selenium	< 0.025	0.025		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Silver	< 0.0050	0.0050		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³

- (1) Instrument QC Batch: MA16685
- (2) Instrument QC Batch: MA16690
- (3) Prep QC Batch: MP22418
- (4) Prep QC Batch: MP22420

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

4.22
4

Report of Analysis

Client Sample ID: GP-16 1'-3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-12		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 90.7
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M62898.D	1	01/23/14	KD	n/a	n/a	MSM2203
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	ND	11	ug/kg	
107-13-1	Acrylonitrile	ND	28	ug/kg	
71-43-2	Benzene	ND	0.57	ug/kg	
108-86-1	Bromobenzene	ND	5.7	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	11	ug/kg	
104-51-8	n-Butylbenzene	ND	5.7	ug/kg	
135-98-8	sec-Butylbenzene	ND	5.7	ug/kg	
98-06-6	tert-Butylbenzene	ND	5.7	ug/kg	
75-15-0	Carbon disulfide	ND	5.7	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	5.7	ug/kg	
67-66-3	Chloroform	ND	2.3	ug/kg	
74-87-3	Chloromethane	ND	5.7	ug/kg	
95-49-8	o-Chlorotoluene	ND	5.7	ug/kg	
106-43-4	p-Chlorotoluene	ND	5.7	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.7	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-16 1'-3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-12		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 90.7
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.7	ug/kg	
594-20-7	2,2-Dichloropropane	ND	5.7	ug/kg	
563-58-6	1,1-Dichloropropene	ND	5.7	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	5.7	ug/kg	
87-68-3	Hexachlorobutadiene	ND	5.7	ug/kg	
591-78-6	2-Hexanone	ND	11	ug/kg	
98-82-8	Isopropylbenzene	ND	5.7	ug/kg	
99-87-6	p-Isopropyltoluene	ND	5.7	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.3	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.7	ug/kg	
74-95-3	Methylene bromide	ND	5.7	ug/kg	
75-09-2	Methylene chloride	ND	2.3	ug/kg	
91-20-3	Naphthalene	6.0	5.7	ug/kg	
103-65-1	n-Propylbenzene	ND	5.7	ug/kg	
100-42-5	Styrene	ND	5.7	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.7	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	11	ug/kg	
108-88-3	Toluene	ND	5.7	ug/kg	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.7	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.7	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.7	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	5.7	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	5.7	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	5.7	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	90%		70-130%

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 1'-3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-12		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 90.7
Method: SW846 8260C		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	91%		70-130%
460-00-4	4-Bromofluorobenzene	84%		70-130%

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 1'-3'		
Lab Sample ID: MC27756-12		Date Sampled: 01/17/14
Matrix: SO - Soil		Date Received: 01/17/14
Method: SW846 8270D SW846 3546		Percent Solids: 90.7
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R36705.D	5	01/24/14	WK	01/21/14	OP36617	MSR1352
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	1300	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2700	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2700	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2700	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5400	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2700	ug/kg	
95-48-7	2-Methylphenol	ND	2700	ug/kg	
106-44-5	4-Methylphenol	ND	2700	ug/kg	
88-75-5	2-Nitrophenol	ND	2700	ug/kg	
100-02-7	4-Nitrophenol	ND	5400	ug/kg	
87-86-5	Pentachlorophenol	ND	2700	ug/kg	
108-95-2	Phenol	ND	1300	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2700	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2700	ug/kg	
83-32-9	Acenaphthene	ND	540	ug/kg	
208-96-8	Acenaphthylene	3850	540	ug/kg	
62-53-3	Aniline	ND	2700	ug/kg	
120-12-7	Anthracene	2490	540	ug/kg	
56-55-3	Benzo(a)anthracene	10200	540	ug/kg	
50-32-8	Benzo(a)pyrene	9520	540	ug/kg	
205-99-2	Benzo(b)fluoranthene	9970	540	ug/kg	
191-24-2	Benzo(g,h,i)perylene	4860	540	ug/kg	
207-08-9	Benzo(k)fluoranthene	7730	540	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1300	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1300	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1300	ug/kg	
106-47-8	4-Chloroaniline	ND	2700	ug/kg	
86-74-8	Carbazole	695	540	ug/kg	
218-01-9	Chrysene	10700	540	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1300	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1300	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1300	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 1'-3'	Date Sampled:	01/17/14
Lab Sample ID:	MC27756-12	Date Received:	01/17/14
Matrix:	SO - Soil	Percent Solids:	90.7
Method:	SW846 8270D SW846 3546		
Project:	Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

ABN RCP List

CAS No.	Compound	Result	RL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	1300	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2700	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2700	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1300	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	1690	540	ug/kg	
132-64-9	Dibenzofuran	ND	540	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1300	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1300	ug/kg	
84-66-2	Diethyl phthalate	ND	1300	ug/kg	
131-11-3	Dimethyl phthalate	ND	1300	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1300	ug/kg	
206-44-0	Fluoranthene	21100	540	ug/kg	
86-73-7	Fluorene	ND	540	ug/kg	
118-74-1	Hexachlorobenzene	ND	1300	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1300	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2700	ug/kg	
67-72-1	Hexachloroethane	ND	1300	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	4720	540	ug/kg	
78-59-1	Isophorone	ND	1300	ug/kg	
91-57-6	2-Methylnaphthalene	ND	540	ug/kg	
88-74-4	2-Nitroaniline	ND	2700	ug/kg	
99-09-2	3-Nitroaniline	ND	2700	ug/kg	
100-01-6	4-Nitroaniline	ND	2700	ug/kg	
91-20-3	Naphthalene	ND	540	ug/kg	
98-95-3	Nitrobenzene	ND	1300	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1300	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1300	ug/kg	
82-68-8	Pentachloronitrobenzene	ND	2700	ug/kg	
85-01-8	Phenanthrene	8970	540	ug/kg	
129-00-0	Pyrene	17900	540	ug/kg	
110-86-1	Pyridine	ND	2700	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2700	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1300	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	40%		30-130%
4165-62-2	Phenol-d5	43%		30-130%
118-79-6	2,4,6-Tribromophenol	43%		30-130%
4165-60-0	Nitrobenzene-d5	46%		30-130%

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 1'-3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-12		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 90.7
Method: SW846 8270D SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

ABN RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	42%		30-130%
1718-51-0	Terphenyl-d14	46%		30-130%

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 1'-3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-12		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 90.7
Method: SW846 8082 SW846 3546		
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK34191.D	1	01/24/14	NK	01/20/14	OP36602	GBK1124
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	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	66%		30-150%
877-09-8	Tetrachloro-m-xylene	56%		30-150%
2051-24-3	Decachlorobiphenyl	66%		30-150%
2051-24-3	Decachlorobiphenyl	60%		30-150%

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-16 1'-3'	Date Sampled:	01/17/14
Lab Sample ID:	MC27756-12	Date Received:	01/17/14
Matrix:	SO - Soil	Percent Solids:	90.7
Method:	CT-ETPH 7/06 SW846 3546		
Project:	Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BI31015.D	5	01/24/14	KN	01/20/14	OP36599	GBI1127
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)	1480	92	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	65%		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-16 1'-3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-12		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 90.7
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	1.8	0.90	mg/kg	1	01/23/14	01/23/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Barium	39.8	4.5	mg/kg	1	01/23/14	01/23/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Cadmium	< 0.36	0.36	mg/kg	1	01/23/14	01/23/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Chromium	12.3	0.90	mg/kg	1	01/23/14	01/23/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Lead	120	0.90	mg/kg	1	01/23/14	01/23/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Mercury	< 0.035	0.035	mg/kg	1	01/23/14	01/23/14 SA	SW846 7471B ¹	SW846 7471B ³
Selenium	< 0.90	0.90	mg/kg	1	01/23/14	01/23/14 EAL	SW846 6010C ²	SW846 3050B ⁴
Silver	< 0.45	0.45	mg/kg	1	01/23/14	01/23/14 EAL	SW846 6010C ²	SW846 3050B ⁴

- (1) Instrument QC Batch: MA16681
- (2) Instrument QC Batch: MA16690
- (3) Prep QC Batch: MP22414
- (4) Prep QC Batch: MP22416

RL = Reporting Limit

4.23
4

Report of Analysis

Client Sample ID: GP-16 1'-3'		Date Sampled: 01/17/14
Lab Sample ID: MC27756-12A		Date Received: 01/17/14
Matrix: SO - Soil		Percent Solids: 90.7
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, 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	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Barium	< 0.50	0.50		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Cadmium	< 0.0040	0.0040		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Chromium	< 0.010	0.010		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Lead	0.095	0.010		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Mercury	< 0.00020	0.00020		mg/l	1	01/23/14	01/24/14 SA	SW846 7470A ¹	SW846 7470A ⁴
Selenium	< 0.025	0.025		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³
Silver	< 0.0050	0.0050		mg/l	1	01/23/14	01/24/14 EAL	SW846 6010C ²	SW846 3010A ³

- (1) Instrument QC Batch: MA16685
- (2) Instrument QC Batch: MA16690
- (3) Prep QC Batch: MP22418
- (4) Prep QC Batch: MP22420

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

4.24
4

Misc. Forms

5

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- RCP Form
- Sample Tracking Chronicle

CHAIN OF CUSTODY

495 TECHNOLOGY CENTER WEST • BUILDING ONE
MARLBOROUGH, MA 01752
TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #: *MC27756*
ACCUTEST QUOTE #:

CLIENT INFORMATION		FACILITY INFORMATION		ANALYTICAL INFORMATION												MATRIX CODES		
CDR Maguire NAME 2080 Silas Deane Hwy ADDRESS Rocky Hill CT 06067 CITY, STATE ZIP Jane Witherell jane.witherell@cdrmaguire.com SEND REPORT TO: PHONE # 860-5633158		Bridge 1127 - Rte 80 over Farm River PROJECT NAME North Hartford, CT LOCATION 98-101 PROJECT NO. FAX # Email		VOLS 8260 SVOLS 8270 CTDPAH Total REACT 8 metals SPLP REACT 8 metals PCBs 8082												DW - DRINKING WATER GW - GROUND WATER WW - WASTE WATER SO - SOIL SL - SLUDGE OI - OIL LIQ - OTHER LIQUID SOL - OTHER SOLID		
ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION					PRESERVATION						LAB USE ONLY					
		DATE	TIME	SAMPLED BY:	MATRIX	# OF BOTTLES	HCl	NH ₄ OH	HNO ₃	H ₂ SO ₄	NONE							
<i>MC27756-1</i>	<i>GP-1 1-3'</i>	<i>1/17/14</i>		<i>CKL</i>	<i>SO</i>	<i>5</i>							<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	
<i>-2</i>	<i>GP-2 1-3'</i>					<i>5</i>										<i>X</i>		
<i>-3</i>	<i>GP-3 4-8'</i>					<i>5</i>										<i>X</i>		
<i>-4</i>	<i>GP-6 2-4'</i>					<i>5</i>										<i>X</i>		
<i>-5</i>	<i>GP-7 1-3'</i>					<i>5</i>										<i>X</i>		
<i>-6</i>	<i>GP-8 1-3'</i>					<i>5</i>										<i>X</i>		
<i>-7</i>	<i>GP-9 1-3'</i>					<i>4</i>												
<i>-8</i>	<i>GP-10 1-3'</i>					<i>4</i>												
<i>-9</i>	<i>GP-11 2-4'</i>					<i>4</i>												<i>Vol 3B, 10A3</i>
<i>-10</i>	<i>GP-12 2-4'</i>					<i>4</i>												
<i>-11</i>	<i>GP-15 1-3'</i>					<i>5</i>										<i>X</i>		
<i>-12</i>	<i>GP-16 1-3'</i>					<i>5</i>										<i>X</i>		
DATA TURNAROUND INFORMATION			DATA DELIVERABLE INFORMATION			COMMENTS/REMARKS												
<input checked="" type="checkbox"/> 14 DAYS STANDARD APPROVED BY: _____ <input type="checkbox"/> 7 DAYS RUSH _____ <input type="checkbox"/> 48 HOUR EMERGENCY _____ <input type="checkbox"/> OTHER _____ 14 DAY TURNAROUND HARDCOPY. EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED			<input type="checkbox"/> STANDARD <input type="checkbox"/> COMMERCIAL "B" <input type="checkbox"/> DISK DELIVERABLE <input type="checkbox"/> STATE FORMS <input checked="" type="checkbox"/> OTHER (SPECIFY) <i>electronic</i>			<i>CR Deep RCP QA/QC Report</i>												
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY																		
RELINQUISHED BY SAMPLER:	DATE TIME:	RECEIVED BY:	RELINQUISHED BY:	DATE TIME:	RECEIVED BY:	RELINQUISHED BY:	DATE TIME:	RECEIVED BY:	RELINQUISHED BY:	DATE TIME:	RECEIVED BY:							
<i>W.L.A.</i>	<i>1/17/14 2:58</i>	<i>[Signature]</i>	<i>B.C.</i>	<i>1-17-14</i>	<i>[Signature]</i>													
RELINQUISHED BY:	DATE TIME:	RECEIVED BY:	RELINQUISHED BY:	DATE TIME:	RECEIVED BY:	RELINQUISHED BY:	DATE TIME:	RECEIVED BY:	RELINQUISHED BY:	DATE TIME:	RECEIVED BY:							
RELINQUISHED BY:	DATE TIME:	RECEIVED BY:	SEAL #	PRESERVE WHERE APPLICABLE		ON ICE	TEMPERATURE											
						<input checked="" type="checkbox"/>	<i>2.7 C</i>											

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC27756 **Client:** CDR **Immediate Client Services Action Required:** No
Date / Time Received: 1/17/2014 **Delivery Method:** _____ **Client Service Action Required at Login:** No
Project: N BRANFORD **No. Coolers:** 1 **Airbill #'s:** _____

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

<u>Cooler Temperature</u>	<u>Y or N</u>
1. Temp criteria achieved:	<input checked="" type="checkbox"/> <input type="checkbox"/>
2. Cooler temp verification:	Infared gun _____
3. Cooler media:	Ice (bag) _____

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

<u>Sample Integrity - Documentation</u>	<u>Y</u>	<u>or</u>	<u>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 checked="" type="checkbox"/>	<input type="checkbox"/>	

<u>Sample Integrity - Condition</u>	<u>Y</u>	<u>or</u>	<u>N</u>
1. Sample recvd 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:			Intact _____

<u>Sample Integrity - Instructions</u>	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Analysis requested is clear:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Bottles received for unspecified tests:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3. Sufficient volume recvd for analysis:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Compositing instructions clear:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Filtering instructions clear:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments

5.1
5

**Reasonable Confidence Protocol
Laboratory Analysis
QA/QC Certification Form**

Laboratory Name: Accutest New England **Client:** CDR Maguire
Project Location: Bridge No.1127-Rte 80 Over Farm River **Project Number:** 98-101
North Branford, CT
Sampling Date(s): 1/17/2014

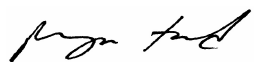
Laboratory Sample ID(s): MC27756-1, MC27756-2, MC27756-3, MC27756-4, MC27756-5, MC27756-6, MC27756-7, MC27756-8, MC27756-9, MC27756-10, MC27756-11, MC27756-12, MC27756-1A, MC27756-2A, MC27756-3A, MC27756-4A, MC27756-5A, MC27756-6A, MC27756-11A, MC27756-12A, MC27756-7A, MC27756-8A, MC27756-9A, MC27756-10A

Methods: CT-ETPH 7/06, EPA 160.3 M, SM21 2540 B MOD., SW846 6010C, SW846 747C

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: Reza Tand Date: 1/27/2014
Accutest New England

5.2
5

Internal Sample Tracking Chronicle

CDR Maguire

Job No: MC27756

Bridge No. 1127-Rte 80 Over Farm River North Branford, CT
 Project No: 98-101

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC27756-1 Collected: 17-JAN-14 00:00 By: CK Received: 17-JAN-14 By: NT GP-1 1'-3'						
MC27756-1	SM21 2540 B MOD.	21-JAN-14	MC			% SOL
MC27756-1	SW846 6010C	21-JAN-14 21:02	EAL	21-JAN-14	EM	AG, AS, BA, CD, CR, PB, SE
MC27756-1	SW846 7471B	22-JAN-14 13:22	SA	22-JAN-14	EM	HG
MC27756-1	SW846 8260C	23-JAN-14 14:07	KD			V8260RCP
MC27756-1	CT-ETPH 7/06	24-JAN-14 10:07	KN	20-JAN-14	AW	BCTTPH
MC27756-1	SW846 8270D	24-JAN-14 11:47	WK	21-JAN-14	FC	AB8270RCP
MC27756-1	SW846 8082	24-JAN-14 16:23	NK	20-JAN-14	MEW	P8082RCP
MC27756-2 Collected: 17-JAN-14 00:00 By: CK Received: 17-JAN-14 By: NT GP-2 1'-3'						
MC27756-2	SM21 2540 B MOD.	21-JAN-14	MC			% SOL
MC27756-2	SW846 6010C	21-JAN-14 21:07	EAL	21-JAN-14	EM	AG, AS, BA, CD, CR, PB, SE
MC27756-2	SW846 7471B	22-JAN-14 13:24	SA	22-JAN-14	EM	HG
MC27756-2	SW846 8260C	23-JAN-14 14:37	KD			V8260RCP
MC27756-2	CT-ETPH 7/06	24-JAN-14 10:45	KN	20-JAN-14	AW	BCTTPH
MC27756-2	SW846 8270D	24-JAN-14 12:09	WK	21-JAN-14	FC	AB8270RCP
MC27756-2	SW846 8082	24-JAN-14 16:42	NK	20-JAN-14	MEW	P8082RCP
MC27756-2	SW846 8270D	24-JAN-14 17:32	WK	21-JAN-14	FC	AB8270RCP
MC27756-3 Collected: 17-JAN-14 00:00 By: CK Received: 17-JAN-14 By: NT GP-3 4'-8'						
MC27756-3	SM21 2540 B MOD.	21-JAN-14	MC			% SOL
MC27756-3	SW846 6010C	21-JAN-14 21:22	EAL	21-JAN-14	EM	AG, AS, BA, CD, CR, PB, SE
MC27756-3	SW846 7471B	22-JAN-14 13:26	SA	22-JAN-14	EM	HG
MC27756-3	SW846 8260C	23-JAN-14 15:06	KD			V8260RCP
MC27756-3	CT-ETPH 7/06	24-JAN-14 09:39	KN	20-JAN-14	AW	BCTTPH
MC27756-3	SW846 8270D	24-JAN-14 12:33	WK	21-JAN-14	FC	AB8270RCP
MC27756-3	SW846 8082	24-JAN-14 17:01	NK	20-JAN-14	MEW	P8082RCP
MC27756-3	SW846 8270D	24-JAN-14 17:55	WK	21-JAN-14	FC	AB8270RCP
MC27756-4 Collected: 17-JAN-14 00:00 By: CK Received: 17-JAN-14 By: NT GP-6 2'-4'						
MC27756-4	SM21 2540 B MOD.	21-JAN-14	MC			% SOL
MC27756-4	SW846 7471B	22-JAN-14 13:29	SA	22-JAN-14	EM	HG

Internal Sample Tracking Chronicle

CDR Maguire

Job No: MC27756

Bridge No. 1127-Rte 80 Over Farm River North Branford, CT
 Project No: 98-101

5.3
5

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC27756-4	SW846 6010C	22-JAN-14 21:08	EAL	22-JAN-14	EM	AG,AS,BA,CD,CR,PB,SE
MC27756-4	SW846 8260C	23-JAN-14 15:36	KD			V8260RCP
MC27756-4	CT-ETPH 7/06	24-JAN-14 09:11	KN	20-JAN-14	AW	BCTTPH
MC27756-4	SW846 8270D	24-JAN-14 12:55	WK	21-JAN-14	FC	AB8270RCP
MC27756-4	SW846 8082	24-JAN-14 17:20	NK	20-JAN-14	MEW	P8082RCP
MC27756-4	SW846 8270D	24-JAN-14 18:18	WK	21-JAN-14	FC	AB8270RCP
MC27756-5 Collected: 17-JAN-14 00:00 By: CK Received: 17-JAN-14 By: NT						
GP-7 1'-3'						
MC27756-5	SM21 2540 B MOD.	21-JAN-14	MC			%SOL
MC27756-5	SW846 7471B	22-JAN-14 13:36	SA	22-JAN-14	EM	HG
MC27756-5	SW846 6010C	22-JAN-14 21:13	EAL	22-JAN-14	EM	AG,AS,BA,CD,CR,PB,SE
MC27756-5	SW846 8260C	23-JAN-14 16:05	KD			V8260RCP
MC27756-5	CT-ETPH 7/06	24-JAN-14 11:13	KN	20-JAN-14	AW	BCTTPH
MC27756-5	SW846 8270D	24-JAN-14 13:20	WK	21-JAN-14	FC	AB8270RCP
MC27756-5	SW846 8082	24-JAN-14 17:39	NK	20-JAN-14	MEW	P8082RCP
MC27756-6 Collected: 17-JAN-14 00:00 By: CK Received: 17-JAN-14 By: NT						
GP-8 1'-3'						
MC27756-6	SM21 2540 B MOD.	21-JAN-14	MC			%SOL
MC27756-6	SW846 7471B	22-JAN-14 13:39	SA	22-JAN-14	EM	HG
MC27756-6	SW846 6010C	22-JAN-14 21:18	EAL	22-JAN-14	EM	AG,AS,BA,CD,CR,PB,SE
MC27756-6	SW846 8260C	23-JAN-14 16:34	KD			V8260RCP
MC27756-6	CT-ETPH 7/06	24-JAN-14 10:07	KN	20-JAN-14	AW	BCTTPH
MC27756-6	SW846 8270D	24-JAN-14 13:43	WK	21-JAN-14	FC	AB8270RCP
MC27756-6	SW846 8082	24-JAN-14 17:58	NK	20-JAN-14	MEW	P8082RCP
MC27756-7 Collected: 17-JAN-14 00:00 By: CK Received: 17-JAN-14 By: NT						
GP-9 1'-3'						
MC27756-7	SM21 2540 B MOD.	21-JAN-14	MC			%SOL
MC27756-7	SW846 7471B	22-JAN-14 13:41	SA	22-JAN-14	EM	HG
MC27756-7	SW846 6010C	22-JAN-14 21:23	EAL	22-JAN-14	EM	AG,AS,BA,CD,CR,PB,SE
MC27756-7	SW846 8260C	23-JAN-14 17:04	KD			V8260RCP
MC27756-7	CT-ETPH 7/06	24-JAN-14 08:14	KN	20-JAN-14	AW	BCTTPH
MC27756-7	SW846 8270D	24-JAN-14 14:06	WK	21-JAN-14	FC	AB8270RCP

Internal Sample Tracking Chronicle

CDR Maguire

Job No: MC27756

Bridge No. 1127-Rte 80 Over Farm River North Branford, CT
 Project No: 98-101

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
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MC27756-8 Collected: 17-JAN-14 00:00 By: CK Received: 17-JAN-14 By: NT
 GP-10 1'-3'

MC27756-8 SM21 2540 B MOD.		21-JAN-14	MC			% SOL
MC27756-8 SW846 7471B		22-JAN-14 13:44	SA	22-JAN-14	EM	HG
MC27756-8 SW846 6010C		22-JAN-14 21:28	EAL	22-JAN-14	EM	AG, AS, BA, CD, CR, PB, SE
MC27756-8 SW846 8260C		23-JAN-14 17:33	KD			V8260RCP
MC27756-8 CT-ETPH 7/06		24-JAN-14 08:42	KN	20-JAN-14	AW	BCTTPH
MC27756-8 SW846 8270D		24-JAN-14 14:29	WK	21-JAN-14	FC	AB8270RCP

MC27756-9 Collected: 17-JAN-14 00:00 By: CK Received: 17-JAN-14 By: NT
 GP-11 2'-4'

MC27756-9 SM21 2540 B MOD.		21-JAN-14	MC			% SOL
MC27756-9 SW846 7471B		22-JAN-14 13:46	SA	22-JAN-14	EM	HG
MC27756-9 SW846 6010C		22-JAN-14 21:32	EAL	22-JAN-14	EM	AG, AS, BA, CD, CR, PB, SE
MC27756-9 SW846 8260C		23-JAN-14 18:03	KD			V8260RCP
MC27756-9 CT-ETPH 7/06		24-JAN-14 11:57	KN	20-JAN-14	AW	BCTTPH
MC27756-9 SW846 8270D		24-JAN-14 14:52	WK	21-JAN-14	FC	AB8270RCP

MC27756-10 Collected: 17-JAN-14 00:00 By: CK Received: 17-JAN-14 By: NT
 GP-12 2'-4'

MC27756-10 SM21 2540 B MOD.		21-JAN-14	MC			% SOL
MC27756-10 SW846 6010C		22-JAN-14 21:37	EAL	22-JAN-14	EM	AG, AS, BA, CD, CR, PB, SE
MC27756-10 SW846 7471B		23-JAN-14 13:34	SA	23-JAN-14	EM	HG
MC27756-10 SW846 8260C		23-JAN-14 18:33	KD			V8260RCP
MC27756-10 CT-ETPH 7/06		24-JAN-14 09:39	KN	20-JAN-14	AW	BCTTPH
MC27756-10 SW846 8270D		24-JAN-14 15:14	WK	21-JAN-14	FC	AB8270RCP

MC27756-11 Collected: 17-JAN-14 00:00 By: CK Received: 17-JAN-14 By: NT
 GP-15 1'-3'

MC27756-11 SM21 2540 B MOD.		21-JAN-14	MC			% SOL
MC27756-11 SW846 6010C		22-JAN-14 21:42	EAL	22-JAN-14	EM	AG, AS, BA, CD, CR, PB, SE
MC27756-11 SW846 7471B		23-JAN-14 13:41	SA	23-JAN-14	EM	HG
MC27756-11 SW846 8260C		23-JAN-14 19:02	KD			V8260RCP
MC27756-11 CT-ETPH 7/06		24-JAN-14 11:13	KN	20-JAN-14	AW	BCTTPH
MC27756-11 SW846 8270D		24-JAN-14 15:37	WK	21-JAN-14	FC	AB8270RCP

Internal Sample Tracking Chronicle

CDR Maguire

Job No: MC27756

Bridge No. 1127-Rte 80 Over Farm River North Branford, CT
 Project No: 98-101

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC27756-1	SW846 8082	24-JAN-14 19:13	NK	20-JAN-14	MEW	P8082RCP
MC27756-1 Collected: 17-JAN-14 00:00 By: CK Received: 17-JAN-14 By: NT GP-16 1'-3'						
MC27756-1	SM21 2540 B MOD.	21-JAN-14	MC			% SOL
MC27756-1	SW846 7471B	23-JAN-14 13:43	SA	23-JAN-14	EM	HG
MC27756-1	SW846 8260C	23-JAN-14 19:32	KD			V8260RCP
MC27756-1	SW846 6010C	23-JAN-14 19:48	EAL	23-JAN-14	EM	AG,AS,BA,CD,CR,PB,SE
MC27756-1	CT-ETPH 7/06	24-JAN-14 10:45	KN	20-JAN-14	AW	BCTTPH
MC27756-1	SW846 8270D	24-JAN-14 16:00	WK	21-JAN-14	FC	AB8270RCP
MC27756-1	SW846 8082	24-JAN-14 19:32	NK	20-JAN-14	MEW	P8082RCP
MC27756-1 Collected: 17-JAN-14 00:00 By: CK Received: 17-JAN-14 By: NT GP-1 1'-3'						
MC27756-1	SW846 6010C	24-JAN-14 01:29	EAL	23-JAN-14	MA	EAG,EAS,EBA,ECD,ECR,EPB,ESE
MC27756-1	SW846 7470A	24-JAN-14 12:07	SA	23-JAN-14	EM	EHG
MC27756-2 Collected: 17-JAN-14 00:00 By: CK Received: 17-JAN-14 By: NT GP-2 1'-3'						
MC27756-2	SW846 6010C	24-JAN-14 01:48	EAL	23-JAN-14	MA	EAG,EAS,EBA,ECD,ECR,EPB,ESE
MC27756-2	SW846 7470A	24-JAN-14 12:09	SA	23-JAN-14	EM	EHG
MC27756-3 Collected: 17-JAN-14 00:00 By: CK Received: 17-JAN-14 By: NT GP-3 4'-8'						
MC27756-3	SW846 6010C	24-JAN-14 01:53	EAL	23-JAN-14	MA	EAG,EAS,EBA,ECD,ECR,EPB,ESE
MC27756-3	SW846 7470A	24-JAN-14 12:12	SA	23-JAN-14	EM	EHG
MC27756-4 Collected: 17-JAN-14 00:00 By: CK Received: 17-JAN-14 By: NT GP-6 2'-4'						
MC27756-4	SW846 6010C	24-JAN-14 01:58	EAL	23-JAN-14	MA	EAG,EAS,EBA,ECD,ECR,EPB,ESE
MC27756-4	SW846 7470A	24-JAN-14 12:14	SA	23-JAN-14	EM	EHG
MC27756-5 Collected: 17-JAN-14 00:00 By: CK Received: 17-JAN-14 By: NT GP-7 1'-3'						

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Internal Sample Tracking Chronicle

CDR Maguire

Job No: MC27756

Bridge No. 1127-Rte 80 Over Farm River North Branford, CT
 Project No: 98-101

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Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC27756-5	SW846 6010C	24-JAN-14 02:13	EAL	23-JAN-14	MA	EAG,EAS,EBA,ECD,ECR,EPB,ESE
MC27756-5	SW846 7470A	24-JAN-14 12:16	SA	23-JAN-14	EM	EHG
MC27756-6 Collected: 17-JAN-14 00:00 By: CK Received: 17-JAN-14 By: NT GP-8 1'-3'						
MC27756-6	SW846 6010C	24-JAN-14 02:18	EAL	23-JAN-14	MA	EAG,EAS,EBA,ECD,ECR,EPB,ESE
MC27756-6	SW846 7470A	24-JAN-14 12:24	SA	23-JAN-14	EM	EHG
MC27756-7 Collected: 17-JAN-14 00:00 By: CK Received: 17-JAN-14 By: NT GP-9 1'-3'						
MC27756-7	SW846 6010C	24-JAN-14 02:23	EAL	23-JAN-14	MA	EAG,EAS,EBA,ECD,ECR,EPB,ESE
MC27756-7	SW846 7470A	24-JAN-14 12:26	SA	23-JAN-14	EM	EHG
MC27756-8 Collected: 17-JAN-14 00:00 By: CK Received: 17-JAN-14 By: NT GP-10 1'-3'						
MC27756-8	SW846 6010C	24-JAN-14 02:28	EAL	23-JAN-14	MA	EAG,EAS,EBA,ECD,ECR,EPB,ESE
MC27756-8	SW846 7470A	24-JAN-14 12:29	SA	23-JAN-14	EM	EHG
MC27756-9 Collected: 17-JAN-14 00:00 By: CK Received: 17-JAN-14 By: NT GP-11 2'-4'						
MC27756-9	SW846 6010C	24-JAN-14 02:33	EAL	23-JAN-14	MA	EAG,EAS,EBA,ECD,ECR,EPB,ESE
MC27756-9	SW846 7470A	24-JAN-14 12:31	SA	23-JAN-14	EM	EHG
MC27756-10 Collected: 17-JAN-14 00:00 By: CK Received: 17-JAN-14 By: NT GP-12 2'-4'						
MC27756-10	SW846 6010C	24-JAN-14 02:38	EAL	23-JAN-14	MA	EAG,EAS,EBA,ECD,ECR,EPB,ESE
MC27756-10	SW846 7470A	24-JAN-14 12:33	SA	23-JAN-14	EM	EHG
MC27756-11 Collected: 17-JAN-14 00:00 By: CK Received: 17-JAN-14 By: NT GP-15 1'-3'						
MC27756-11	SW846 6010C	24-JAN-14 02:43	EAL	23-JAN-14	MA	EAG,EAS,EBA,ECD,ECR,EPB,ESE
MC27756-11	SW846 7470A	24-JAN-14 12:36	SA	23-JAN-14	EM	EHG

Internal Sample Tracking Chronicle

CDR Maguire

Job No: MC27756

Bridge No. 1127-Rte 80 Over Farm River North Branford, CT

Project No: 98-101

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
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MC27756-12~~2~~ Collected: 17-JAN-14 00:00 By: CK Received: 17-JAN-14 By: NT
 GP-16 1'-3'

MC27756-12 2 SW846 6010C	24-JAN-14 02:48	EAL	23-JAN-14	MA	EAG,EAS,EBA,ECD,ECR,EPB,ESE
MC27756-12 2 SW846 7470A	24-JAN-14 12:39	SA	23-JAN-14	EM	EHG

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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: MC27756**Account:** CDRMRHCT CDR Maguire**Project:** Bridge No.1127-Rte 80 Over Farm River North Branford, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM2203-MB	M62880.D	1	01/23/14	KD	n/a	n/a	MSM2203

The QC reported here applies to the following samples:**Method:** SW846 8260C

MC27756-1, MC27756-2, MC27756-3, MC27756-4, MC27756-5, MC27756-6, MC27756-7, MC27756-8, MC27756-9, MC27756-10, MC27756-11, MC27756-12

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	10	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: MC27756

Account: CDRMRHCT CDR Maguire

Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM2203-MB	M62880.D	1	01/23/14	KD	n/a	n/a	MSM2203

The QC reported here applies to the following samples:

Method: SW846 8260C

MC27756-1, MC27756-2, MC27756-3, MC27756-4, MC27756-5, MC27756-6, MC27756-7, MC27756-8, MC27756-9, MC27756-10, MC27756-11, MC27756-12

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: MC27756
Account: CDRMRHCT CDR Maguire
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM2203-MB	M62880.D	1	01/23/14	KD	n/a	n/a	MSM2203

The QC reported here applies to the following samples:

Method: SW846 8260C

MC27756-1, MC27756-2, MC27756-3, MC27756-4, MC27756-5, MC27756-6, MC27756-7, MC27756-8, MC27756-9, MC27756-10, MC27756-11, MC27756-12

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	88%	70-130%
2037-26-5	Toluene-D8	90%	70-130%
460-00-4	4-Bromofluorobenzene	86%	70-130%

Blank Spike Summary

Job Number: MC27756
Account: CDRMRHCT CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM2203-BS	M62878.D	1	01/23/14	KD	n/a	n/a	MSM2203

The QC reported here applies to the following samples:

Method: SW846 8260C

MC27756-1, MC27756-2, MC27756-3, MC27756-4, MC27756-5, MC27756-6, MC27756-7, MC27756-8, MC27756-9, MC27756-10, MC27756-11, MC27756-12

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
67-64-1	Acetone	50	53.0	106	70-130
107-13-1	Acrylonitrile	100	110	110	70-130
71-43-2	Benzene	50	49.8	100	70-130
108-86-1	Bromobenzene	50	45.3	91	70-130
75-27-4	Bromodichloromethane	50	50.0	100	70-130
75-25-2	Bromoform	50	42.2	84	70-130
74-83-9	Bromomethane	50	57.6	115	70-130
78-93-3	2-Butanone (MEK)	50	45.5	91	70-130
104-51-8	n-Butylbenzene	50	46.3	93	70-130
135-98-8	sec-Butylbenzene	50	45.8	92	70-130
98-06-6	tert-Butylbenzene	50	45.9	92	70-130
75-15-0	Carbon disulfide	50	50.7	101	70-130
56-23-5	Carbon tetrachloride	50	47.8	96	70-130
108-90-7	Chlorobenzene	50	44.1	88	70-130
75-00-3	Chloroethane	50	72.7	145* a	70-130
67-66-3	Chloroform	50	50.2	100	70-130
74-87-3	Chloromethane	50	57.8	116	70-130
95-49-8	o-Chlorotoluene	50	43.9	88	70-130
106-43-4	p-Chlorotoluene	50	46.7	93	70-130
96-12-8	1,2-Dibromo-3-chloropropane	50	39.3	79	70-130
124-48-1	Dibromochloromethane	50	43.3	87	70-130
106-93-4	1,2-Dibromoethane	50	43.3	87	70-130
95-50-1	1,2-Dichlorobenzene	50	43.8	88	70-130
541-73-1	1,3-Dichlorobenzene	50	44.2	88	70-130
106-46-7	1,4-Dichlorobenzene	50	45.1	90	70-130
75-71-8	Dichlorodifluoromethane	50	47.4	95	70-130
75-34-3	1,1-Dichloroethane	50	53.5	107	70-130
107-06-2	1,2-Dichloroethane	50	46.5	93	70-130
75-35-4	1,1-Dichloroethene	50	55.2	110	70-130
156-59-2	cis-1,2-Dichloroethene	50	51.4	103	70-130
156-60-5	trans-1,2-Dichloroethene	50	51.5	103	70-130
78-87-5	1,2-Dichloropropane	50	50.2	100	70-130
142-28-9	1,3-Dichloropropane	50	44.1	88	70-130
594-20-7	2,2-Dichloropropane	50	52.8	106	70-130
563-58-6	1,1-Dichloropropene	50	50.8	102	70-130
10061-01-5	cis-1,3-Dichloropropene	50	49.5	99	70-130

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC27756
Account: CDRMRHCT CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM2203-BS	M62878.D	1	01/23/14	KD	n/a	n/a	MSM2203

The QC reported here applies to the following samples:

Method: SW846 8260C

MC27756-1, MC27756-2, MC27756-3, MC27756-4, MC27756-5, MC27756-6, MC27756-7, MC27756-8, MC27756-9, MC27756-10, MC27756-11, MC27756-12

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
10061-02-6	trans-1,3-Dichloropropene	50	51.8	104	70-130
100-41-4	Ethylbenzene	50	45.8	92	70-130
76-13-1	Freon 113	50	56.1	112	70-130
87-68-3	Hexachlorobutadiene	50	43.6	87	70-130
591-78-6	2-Hexanone	50	36.8	74	70-130
98-82-8	Isopropylbenzene	50	46.6	93	70-130
99-87-6	p-Isopropyltoluene	50	46.1	92	70-130
1634-04-4	Methyl Tert Butyl Ether	50	50.5	101	70-130
108-10-1	4-Methyl-2-pentanone (MIBK)	50	49.5	99	70-130
74-95-3	Methylene bromide	50	47.9	96	70-130
75-09-2	Methylene chloride	50	56.5	113	70-130
91-20-3	Naphthalene	50	46.6	93	70-130
103-65-1	n-Propylbenzene	50	43.8	88	70-130
100-42-5	Styrene	50	47.1	94	70-130
630-20-6	1,1,1,2-Tetrachloroethane	50	44.4	89	70-130
79-34-5	1,1,2,2-Tetrachloroethane	50	45.9	92	70-130
127-18-4	Tetrachloroethene	50	43.4	87	70-130
109-99-9	Tetrahydrofuran	50	47.9	96	70-130
108-88-3	Toluene	50	52.3	105	70-130
110-57-6	Trans-1,4-Dichloro-2-Butene	50	40.1	80	70-130
87-61-6	1,2,3-Trichlorobenzene	50	43.9	88	70-130
120-82-1	1,2,4-Trichlorobenzene	50	44.1	88	70-130
71-55-6	1,1,1-Trichloroethane	50	49.4	99	70-130
79-00-5	1,1,2-Trichloroethane	50	50.3	101	70-130
79-01-6	Trichloroethene	50	49.2	98	70-130
75-69-4	Trichlorofluoromethane	50	48.6	97	70-130
96-18-4	1,2,3-Trichloropropane	50	44.5	89	70-130
95-63-6	1,2,4-Trimethylbenzene	50	45.7	91	70-130
108-67-8	1,3,5-Trimethylbenzene	50	46.4	93	70-130
75-01-4	Vinyl chloride	50	57.9	116	70-130
	m,p-Xylene	100	91.1	91	70-130
95-47-6	o-Xylene	50	44.7	89	70-130

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC27756
Account: CDRMRHCT CDR Maguire
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM2203-BS	M62878.D	1	01/23/14	KD	n/a	n/a	MSM2203

The QC reported here applies to the following samples:

Method: SW846 8260C

MC27756-1, MC27756-2, MC27756-3, MC27756-4, MC27756-5, MC27756-6, MC27756-7, MC27756-8, MC27756-9, MC27756-10, MC27756-11, MC27756-12

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	85%	70-130%
2037-26-5	Toluene-D8	91%	70-130%
460-00-4	4-Bromofluorobenzene	88%	70-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Volatile Internal Standard Area Summary

Job Number: MC27756
Account: CDRMRHCT CDR Maguire
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT

Check Std: MSM2203-CC2195	Injection Date: 01/23/14
Lab File ID: M62876.D	Injection Time: 08:40
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	117681	9.35	173645	10.22	88217	13.50	116942	16.06	39332	6.84
Upper Limit ^a	235362	9.85	347290	10.72	176434	14.00	233884	16.56	78664	7.34
Lower Limit ^b	58841	8.85	86823	9.72	44109	13.00	58471	15.56	19666	6.34

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSM2203-BS	120182	9.34	176523	10.22	85253	13.50	117153	16.06	43265	6.84
MSM2203-MB	110521	9.35	161891	10.23	76432	13.51	106140	16.06	39154	6.83
ZZZZZZ	107380	9.34	156103	10.22	71774	13.50	100711	16.06	37305	6.84
ZZZZZZ	103499	9.35	147862	10.22	69085	13.50	96835	16.06	39142	6.84
MC27721-4	103661	9.34	158004	10.22	71354	13.50	83764	16.06	14008 ^c	6.88
ZZZZZZ	97103	9.35	140534	10.22	63190	13.50	75988	16.06	45301	6.84
ZZZZZZ	101953	9.35	148919	10.23	67248	13.50	84381	16.06	48488	6.85
ZZZZZZ	108069	9.34	154662	10.22	71225	13.50	98243	16.06	43007	6.84
MC27756-1	102319	9.35	150239	10.23	71504	13.51	103133	16.06	66787	6.83
MC27756-2	102862	9.35	152833	10.22	73856	13.50	98696	16.06	68649	6.83
MC27756-3	105893	9.35	149312	10.22	72171	13.50	100946	16.06	71813	6.84
MC27756-4	99815	9.35	146567	10.22	68648	13.50	100756	16.06	75913	6.84
MC27756-5	102365	9.35	144107	10.23	69173	13.50	98881	16.06	65857	6.84
MC27756-6	95300	9.35	140129	10.23	66357	13.50	94945	16.06	60690	6.84
MC27756-7	92018	9.35	136361	10.22	65985	13.50	94560	16.06	63500	6.83
MC27756-8	95848	9.35	138514	10.23	65431	13.50	94848	16.06	69108	6.83
MC27756-9	95959	9.35	138686	10.23	64801	13.50	96769	16.06	70780	6.84
MC27756-10	94188	9.35	135734	10.22	65321	13.50	93046	16.06	66010	6.83
MC27756-11	96323	9.35	133949	10.23	63457	13.51	93228	16.06	65413	6.85
MC27756-12	92308	9.35	131002	10.23	65001	13.50	93014	16.06	66548	6.84
MC27721-4MS	96489	9.35	139253	10.22	68051	13.50	96157	16.06	60640	6.83
MC27721-4MSD	103360	9.35	148248	10.22	74108	13.50	99462	16.06	62193	6.84

- 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 Surrogate Recovery Summary

Job Number: MC27756

Account: CDRMRHCT CDR Maguire

Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, 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
MC27756-1	M62887.D	91.0	90.0	86.0
MC27756-2	M62888.D	92.0	89.0	86.0
MC27756-3	M62889.D	88.0	88.0	85.0
MC27756-4	M62890.D	91.0	86.0	84.0
MC27756-5	M62891.D	90.0	90.0	86.0
MC27756-6	M62892.D	95.0	90.0	85.0
MC27756-7	M62893.D	93.0	89.0	83.0
MC27756-8	M62894.D	93.0	87.0	84.0
MC27756-9	M62895.D	91.0	88.0	84.0
MC27756-10	M62896.D	95.0	89.0	82.0
MC27756-11	M62897.D	89.0	90.0	84.0
MC27756-12	M62898.D	90.0	91.0	84.0
MSM2203-BS	M62878.D	85.0	91.0	88.0
MSM2203-MB	M62880.D	88.0	90.0	86.0

Surrogate Compounds

Recovery Limits

S1 = Dibromofluoromethane
S2 = Toluene-D8
S3 = 4-Bromofluorobenzene

70-130%
70-130%
70-130%

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: MC27756
Account: CDRMRHCT CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP36617-MB	R36687.D	1	01/24/14	WK	01/21/14	OP36617	MSR1352

The QC reported here applies to the following samples:

Method: SW846 8270D

MC27756-1, MC27756-2, MC27756-3, MC27756-4, MC27756-5, MC27756-6, MC27756-7, MC27756-8, MC27756-9, MC27756-10, MC27756-11, MC27756-12

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	960	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	960	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	96	ug/kg	
208-96-8	Acenaphthylene	ND	96	ug/kg	
62-53-3	Aniline	ND	480	ug/kg	
120-12-7	Anthracene	ND	96	ug/kg	
56-55-3	Benzo(a)anthracene	ND	96	ug/kg	
50-32-8	Benzo(a)pyrene	ND	96	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	96	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	96	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	96	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	96	ug/kg	
218-01-9	Chrysene	ND	96	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	240	ug/kg	

Method Blank Summary

Job Number: MC27756
Account: CDRMRHCT CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP36617-MB	R36687.D	1	01/24/14	WK	01/21/14	OP36617	MSR1352

The QC reported here applies to the following samples:

Method: SW846 8270D

MC27756-1, MC27756-2, MC27756-3, MC27756-4, MC27756-5, MC27756-6, MC27756-7, MC27756-8, MC27756-9, MC27756-10, MC27756-11, MC27756-12

CAS No.	Compound	Result	RL	Units	Q
53-70-3	Dibenzo(a,h)anthracene	ND	96	ug/kg	
132-64-9	Dibenzofuran	ND	96	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	96	ug/kg	
86-73-7	Fluorene	ND	96	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	96	ug/kg	
78-59-1	Isophorone	ND	240	ug/kg	
91-57-6	2-Methylnaphthalene	ND	96	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	96	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	96	ug/kg	
129-00-0	Pyrene	ND	96	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	52% 30-130%
4165-62-2	Phenol-d5	52% 30-130%
118-79-6	2,4,6-Tribromophenol	56% 30-130%

Method Blank Summary

Job Number: MC27756
Account: CDRMRHCT CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP36617-MB	R36687.D	1	01/24/14	WK	01/21/14	OP36617	MSR1352

The QC reported here applies to the following samples:

Method: SW846 8270D

MC27756-1, MC27756-2, MC27756-3, MC27756-4, MC27756-5, MC27756-6, MC27756-7, MC27756-8, MC27756-9, MC27756-10, MC27756-11, MC27756-12

CAS No.	Surrogate Recoveries	Limits
4165-60-0	Nitrobenzene-d5	60% 30-130%
321-60-8	2-Fluorobiphenyl	51% 30-130%
1718-51-0	Terphenyl-d14	72% 30-130%

7.1.1
7

Blank Spike Summary

Job Number: MC27756
Account: CDRMRHCT CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP36617-BS	R36688.D	1	01/24/14	WK	01/21/14	OP36617	MSR1352

The QC reported here applies to the following samples:

Method: SW846 8270D

MC27756-1, MC27756-2, MC27756-3, MC27756-4, MC27756-5, MC27756-6, MC27756-7, MC27756-8, MC27756-9, MC27756-10, MC27756-11, MC27756-12

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
95-57-8	2-Chlorophenol	2470	1180	48	30-130
59-50-7	4-Chloro-3-methyl phenol	2470	1420	57	30-130
120-83-2	2,4-Dichlorophenol	2470	1240	50	30-130
105-67-9	2,4-Dimethylphenol	2470	1360	55	30-130
51-28-5	2,4-Dinitrophenol	2470	152	6* a	30-130
534-52-1	4,6-Dinitro-o-cresol	2470	477	19* a	30-130
95-48-7	2-Methylphenol	2470	1230	50	30-130
106-44-5	4-Methylphenol	4940	2490	50	30-130
88-75-5	2-Nitrophenol	2470	1180	48	30-130
100-02-7	4-Nitrophenol	2470	1470	60	30-130
87-86-5	Pentachlorophenol	2470	1070	43	30-130
108-95-2	Phenol	2470	1250	51	30-130
95-95-4	2,4,5-Trichlorophenol	2470	1230	50	30-130
88-06-2	2,4,6-Trichlorophenol	2470	1200	49	30-130
83-32-9	Acenaphthene	2470	1530	62	40-140
208-96-8	Acenaphthylene	2470	1170	47	40-140
62-53-3	Aniline	2470	720	29* a	40-140
120-12-7	Anthracene	2470	1610	65	40-140
56-55-3	Benzo(a)anthracene	2470	1740	70	40-140
50-32-8	Benzo(a)pyrene	2470	1440	58	40-140
205-99-2	Benzo(b)fluoranthene	2470	1570	64	40-140
191-24-2	Benzo(g,h,i)perylene	2470	1570	64	40-140
207-08-9	Benzo(k)fluoranthene	2470	1910	77	40-140
101-55-3	4-Bromophenyl phenyl ether	2470	1580	64	40-140
85-68-7	Butyl benzyl phthalate	2470	1910	77	40-140
91-58-7	2-Chloronaphthalene	2470	1450	59	40-140
106-47-8	4-Chloroaniline	2470	879	36* a	40-140
86-74-8	Carbazole	2470	1720	70	40-140
218-01-9	Chrysene	2470	1640	66	40-140
111-91-1	bis(2-Chloroethoxy)methane	2470	1360	55	40-140
111-44-4	bis(2-Chloroethyl)ether	2470	1460	59	40-140
108-60-1	bis(2-Chloroisopropyl)ether	2470	1450	59	40-140
7005-72-3	4-Chlorophenyl phenyl ether	2470	1580	64	40-140
121-14-2	2,4-Dinitrotoluene	2470	1610	65	40-140
606-20-2	2,6-Dinitrotoluene	2470	1450	59	40-140
91-94-1	3,3'-Dichlorobenzidine	2470	1250	51	40-140

* = Outside of Control Limits.

7.2.1
7

Blank Spike Summary

Job Number: MC27756
Account: CDRMRHCT CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP36617-BS	R36688.D	1	01/24/14	WK	01/21/14	OP36617	MSR1352

The QC reported here applies to the following samples: **Method:** SW846 8270D

MC27756-1, MC27756-2, MC27756-3, MC27756-4, MC27756-5, MC27756-6, MC27756-7, MC27756-8, MC27756-9, MC27756-10, MC27756-11, MC27756-12

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
53-70-3	Dibenzo(a,h)anthracene	2470	1680	68	40-140
132-64-9	Dibenzofuran	2470	1490	60	40-140
84-74-2	Di-n-butyl phthalate	2470	1690	68	40-140
117-84-0	Di-n-octyl phthalate	2470	2010	81	40-140
84-66-2	Diethyl phthalate	2470	1700	69	40-140
131-11-3	Dimethyl phthalate	2470	1620	66	40-140
117-81-7	bis(2-Ethylhexyl)phthalate	2470	1930	78	40-140
206-44-0	Fluoranthene	2470	1700	69	40-140
86-73-7	Fluorene	2470	1620	66	40-140
118-74-1	Hexachlorobenzene	2470	1620	66	40-140
87-68-3	Hexachlorobutadiene	2470	1370	55	40-140
77-47-4	Hexachlorocyclopentadiene	2470	732	30* a	40-140
67-72-1	Hexachloroethane	2470	1380	56	40-140
193-39-5	Indeno(1,2,3-cd)pyrene	2470	1660	67	40-140
78-59-1	Isophorone	2470	1550	63	40-140
91-57-6	2-Methylnaphthalene	2470	1360	55	40-140
88-74-4	2-Nitroaniline	2470	1520	62	40-140
99-09-2	3-Nitroaniline	2470	1200	49	40-140
100-01-6	4-Nitroaniline	2470	1440	58	40-140
91-20-3	Naphthalene	2470	1460	59	40-140
98-95-3	Nitrobenzene	2470	1570	64	40-140
621-64-7	N-Nitroso-di-n-propylamine	2470	1650	67	40-140
86-30-6	N-Nitrosodiphenylamine	2470	1540	62	40-140
82-68-8	Pentachloronitrobenzene	2470	1660	67	40-140
85-01-8	Phenanthrene	2470	1680	68	40-140
129-00-0	Pyrene	2470	1760	71	40-140
110-86-1	Pyridine	2470	969	39* a	40-140
95-94-3	1,2,4,5-Tetrachlorobenzene	2470	1310	53	40-140
120-82-1	1,2,4-Trichlorobenzene	2470	1400	57	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	48%	30-130%
4165-62-2	Phenol-d5	48%	30-130%
118-79-6	2,4,6-Tribromophenol	53%	30-130%

* = Outside of Control Limits.

7.2.1
7

Blank Spike Summary

Job Number: MC27756
Account: CDRMRHCT CDR Maguire
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP36617-BS	R36688.D	1	01/24/14	WK	01/21/14	OP36617	MSR1352

The QC reported here applies to the following samples:

Method: SW846 8270D

MC27756-1, MC27756-2, MC27756-3, MC27756-4, MC27756-5, MC27756-6, MC27756-7, MC27756-8, MC27756-9, MC27756-10, MC27756-11, MC27756-12

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	57%	30-130%
321-60-8	2-Fluorobiphenyl	48%	30-130%
1718-51-0	Terphenyl-d14	58%	30-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Semivolatiles Internal Standard Area Summary

Job Number: MC27756
Account: CDRMRHCT CDR Maguire
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT

Check Std:	MSR1352-CC1262	Injection Date:	01/24/14
Lab File ID:	R36686.D	Injection Time:	08:41
Instrument ID:	GCMSR	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	418746	4.30	1615130	5.36	1003805	6.89	1808174	8.19	2001847	10.82	1841234	12.56
Upper Limit ^a	837492	4.80	3230260	5.86	2007610	7.39	3616348	8.69	4003694	11.32	3682468	13.06
Lower Limit ^b	209373	3.80	807565	4.86	501903	6.39	904087	7.69	1000924	10.32	920617	12.06

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
OP36617-MB	378580	4.30	1395534	5.36	860227	6.89	1511799	8.18	1495368	10.82	1370944	12.55
OP36617-BS	392598	4.30	1448562	5.36	905141	6.89	1562552	8.18	1619734	10.82	1429710	12.55
OP36617-MS	379428	4.30	1522937	5.36	1045292	6.90	1801218	8.19	1652367	10.82	1429175	12.55
OP36617-MSD	365974	4.30	1471709	5.36	1028282	6.90	1770243	8.19	1620575	10.82	1458436	12.55
MC27776-2	388313	4.30	1545964	5.36	1079106	6.90	1882152	8.19	1683518	10.82	1496672	12.55
ZZZZZ	343305	4.30	1377699	5.36	932659	6.90	1637667	8.19	1497649	10.82	1337106	12.55
MC27756-1	345586	4.30	1278474	5.36	789076	6.89	1364813	8.18	1375489	10.82	1303237	12.55
MC27756-2	345132	4.30	1285974	5.36	797385	6.89	1398451	8.19	1612147	10.83	1475929	12.57
MC27756-3	355649	4.30	1317965	5.36	818426	6.89	1425369	8.19	1539383	10.83	1437618	12.56
MC27756-4	352066	4.30	1290130	5.36	802369	6.89	1411129	8.19	1698438	10.83	1550081	12.57
MC27756-5 ^c	338314	4.30	1256999	5.36	794210	6.89	1405199	8.19	1521393	10.82	1443511	12.56
MC27756-6	343029	4.30	1285109	5.36	805375	6.89	1427537	8.18	1497033	10.82	1414569	12.56
MC27756-7	364318	4.30	1339943	5.36	816519	6.89	1413297	8.19	1409987	10.82	1353664	12.56
MC27756-8	360700	4.30	1332775	5.36	804533	6.89	1410434	8.19	1429224	10.82	1361901	12.56
MC27756-9 ^c	343217	4.30	1275847	5.36	785770	6.89	1390245	8.18	1446671	10.82	1370433	12.56
MC27756-10	350149	4.30	1297078	5.36	805310	6.89	1417637	8.18	1441272	10.82	1367723	12.56
MC27756-11	344923	4.30	1294248	5.36	805847	6.89	1441706	8.19	1595601	10.83	1431486	12.56
MC27756-12	350587	4.30	1319025	5.36	817477	6.89	1426024	8.19	1531619	10.82	1414479	12.56
ZZZZZ	325391	4.30	1216392	5.36	733145	6.89	1271465	8.18	1300146	10.82	1241036	12.56
ZZZZZ	330072	4.30	1219042	5.36	731519	6.89	1256205	8.18	1283523	10.82	1219616	12.56
ZZZZZ	322927	4.30	1184735	5.36	721034	6.89	1263822	8.19	1284349	10.82	1201689	12.56
MC27756-2	344259	4.30	1286820	5.36	802203	6.89	1431431	8.19	1514513	10.82	1372965	12.56
MC27756-3	347805	4.30	1305046	5.36	801556	6.89	1422656	8.19	1494533	10.82	1383808	12.56
MC27756-4	344933	4.30	1292972	5.36	799500	6.89	1413196	8.19	1485721	10.82	1352430	12.56

- 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.

7.3.1
 7

Semivolatiles Surrogate Recovery Summary

Job Number: MC27756
Account: CDRMRHCT CDR Maguire
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT

Method: SW846 8270D	Matrix: SO
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
MC27756-1	R36694.D	63.0	68.0	73.0	75.0	70.0	79.0
MC27756-2	R36709.D	40.0	46.0	49.0	45.0	44.0	53.0
MC27756-2	R36695.D	43.0	49.0	56.0	50.0	47.0	56.0
MC27756-3	R36710.D	59.0	61.0	62.0	68.0	61.0	69.0
MC27756-3	R36696.D	63.0	65.0	77.0	75.0	67.0	80.0
MC27756-4	R36711.D	43.0	47.0	51.0	51.0	47.0	55.0
MC27756-4	R36697.D	47.0	51.0	59.0	57.0	53.0	58.0
MC27756-5	R36698.D	50.0	51.0	53.0	58.0	50.0	56.0
MC27756-6	R36699.D	55.0	58.0	55.0	64.0	57.0	60.0
MC27756-7	R36700.D	66.0	68.0	74.0	78.0	70.0	80.0
MC27756-8	R36701.D	73.0	75.0	80.0	87.0	78.0	85.0
MC27756-9	R36702.D	65.0	67.0	65.0	76.0	64.0	70.0
MC27756-10	R36703.D	55.0	56.0	54.0	64.0	54.0	59.0
MC27756-11	R36704.D	49.0	55.0	54.0	59.0	56.0	57.0
MC27756-12	R36705.D	40.0	43.0	43.0	46.0	42.0	46.0
OP36617-BS	R36688.D	48.0	48.0	53.0	57.0	48.0	58.0
OP36617-MB	R36687.D	52.0	52.0	56.0	60.0	51.0	72.0

Surrogate Compounds	Recovery Limits
----------------------------	------------------------

S1 = 2-Fluorophenol	30-130%
S2 = Phenol-d5	30-130%
S3 = 2,4,6-Tribromophenol	30-130%
S4 = Nitrobenzene-d5	30-130%
S5 = 2-Fluorobiphenyl	30-130%
S6 = Terphenyl-d14	30-130%

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: MC27756
Account: CDRMRHCT CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP36599-MB	BI31006.D	1	01/24/14	KN	01/20/14	OP36599	GBI1128

The QC reported here applies to the following samples:

Method: CT-ETPH 7/06

MC27756-1, MC27756-2, MC27756-3, MC27756-4, MC27756-5, MC27756-6, MC27756-7, MC27756-8, MC27756-9, MC27756-10, MC27756-11, MC27756-12

CAS No.	Compound	Result	RL	Units	Q
	CT-ETPH (C9-C36)	ND	16	mg/kg	

CAS No.	Surrogate Recoveries	Limits
84-15-1	o-Terphenyl	58% 50-137%

Method Blank Summary

Job Number: MC27756
Account: CDRMRHCT CDR Maguire
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP36602-MB	BK34179.D	1	01/24/14	NK	01/20/14	OP36602	GBK1124

The QC reported here applies to the following samples: **Method:** SW846 8082

MC27756-1, MC27756-2, MC27756-3, MC27756-4, MC27756-5, MC27756-6, MC27756-11, MC27756-12

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	33	ug/kg	
11104-28-2	Aroclor 1221	ND	33	ug/kg	
11141-16-5	Aroclor 1232	ND	33	ug/kg	
53469-21-9	Aroclor 1242	ND	33	ug/kg	
12672-29-6	Aroclor 1248	ND	33	ug/kg	
11097-69-1	Aroclor 1254	ND	33	ug/kg	
11096-82-5	Aroclor 1260	ND	33	ug/kg	
37324-23-5	Aroclor 1262	ND	33	ug/kg	
11100-14-4	Aroclor 1268	ND	33	ug/kg	

CAS No.	Surrogate Recoveries	Limits	
877-09-8	Tetrachloro-m-xylene	85%	30-150%
877-09-8	Tetrachloro-m-xylene	86%	30-150%
2051-24-3	Decachlorobiphenyl	91%	30-150%
2051-24-3	Decachlorobiphenyl	90%	30-150%

8.1.2
8

Blank Spike Summary

Job Number: MC27756
Account: CDRMRHCT CDR Maguire
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP36599-BS	BI31008.D	1	01/24/14	KN	01/20/14	OP36599	GBI1128

The QC reported here applies to the following samples:

Method: CT-ETPH 7/06

MC27756-1, MC27756-2, MC27756-3, MC27756-4, MC27756-5, MC27756-6, MC27756-7, MC27756-8, MC27756-9, MC27756-10, MC27756-11, MC27756-12

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	CT-ETPH (C9-C36)	45.1	28.2	63	60-120

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	59%	50-137%

8.2.1

8

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC27756
Account: CDRMRHCT CDR Maguire
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP36602-BS	BK34180.D	1	01/24/14	NK	01/20/14	OP36602	GBK1124

The QC reported here applies to the following samples: **Method:** SW846 8082

MC27756-1, MC27756-2, MC27756-3, MC27756-4, MC27756-5, MC27756-6, MC27756-11, MC27756-12

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
12674-11-2	Aroclor 1016	262	225	86	40-140
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	262	236	90	40-140
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	83%	30-150%
877-09-8	Tetrachloro-m-xylene	89%	30-150%
2051-24-3	Decachlorobiphenyl	95%	30-150%
2051-24-3	Decachlorobiphenyl	96%	30-150%

* = Outside of Control Limits.

8.2.2
8

Semivolatiles Surrogate Recovery Summary

Job Number: MC27756
Account: CDRMRHCT CDR Maguire
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT

Method: SW846 8082	Matrix: SO
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 ^a	S1 ^b	S2 ^a	S2 ^b
MC27756-1	BK34181.D	83.0	78.0	87.0	89.0
MC27756-2	BK34182.D	83.0	71.0	82.0	82.0
MC27756-3	BK34183.D	80.0	67.0	78.0	75.0
MC27756-4	BK34184.D	90.0	84.0	87.0	82.0
MC27756-5	BK34185.D	85.0	74.0	82.0	81.0
MC27756-6	BK34186.D	56.0	53.0	52.0	52.0
MC27756-11	BK34190.D	65.0	54.0	62.0	70.0
MC27756-12	BK34191.D	66.0	56.0	66.0	60.0
OP36602-BS	BK34180.D	83.0	89.0	95.0	96.0
OP36602-MB	BK34179.D	85.0	86.0	91.0	90.0

Surrogate Compounds	Recovery Limits
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S1 = Tetrachloro-m-xylene	30-150%
S2 = Decachlorobiphenyl	30-150%

- (a) Recovery from GC signal #1
- (b) Recovery from GC signal #2

8.3.1
8

Semivolatle Surrogate Recovery Summary

Job Number: MC27756
Account: CDRMRHCT CDR Maguire
Project: Bridge No. 1127-Rte 80 Over Farm River North Branford, CT

Method: CT-ETPH 7/06	Matrix: SO
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 ^a
MC27756-1	BI31014.D	68.0
MC27756-2	BI31016.D	68.0
MC27756-3	BI31011.D	70.0
MC27756-4	BI31009.D	72.0
MC27756-5	BI31018.D	78.0
MC27756-6	BI31013.D	60.0
MC27756-7	BI31005.D	67.0
MC27756-8	BI31007.D	74.0
MC27756-9	BI31019.D	64.0
MC27756-10	BI31012.D	57.0
MC27756-11	BI31017.D	54.0
MC27756-12	BI31015.D	65.0
OP36599-BS	BI31008.D	59.0
OP36599-MB	BI31006.D	58.0

Surrogate Compounds	Recovery Limits
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S1 = o-Terphenyl	50-137%
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(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: MC27756
Account: CDRMRHCT - CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22401
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date: 01/21/14

Metal	RL	IDL	MDL	MB raw	final
Aluminum	20	.61	3.6		
Antimony	1.0	.11	.15		
Arsenic	1.0	.22	.21	-0.030	<1.0
Barium	5.0	.019	.073	0.060	<5.0
Beryllium	0.40	.008	.024		
Boron	10	.081	.11		
Cadmium	0.40	.022	.042	0.0	<0.40
Calcium	500	.85	6.3		
Chromium	1.0	.074	.095	-0.010	<1.0
Cobalt	5.0	.028	.047		
Copper	2.5	.086	.56		
Gold	5.0	.18	.43		
Iron	10	.44	.87		
Lead	1.0	.16	.17	-0.030	<1.0
Magnesium	500	4.3	5.1		
Manganese	1.5	.017	.04		
Molybdenum	10	.04	.07		
Nickel	4.0	.045	.044		
Palladium	5.0	.2	.64		
Platinum	5.0	.87	1.5		
Potassium	500	2.4	8.6		
Selenium	1.0	.14	.35	0.090	<1.0
Silicon	10	.21	3.3		
Silver	0.50	.047	.13	0.010	<0.50
Sodium	500	4.2	3.3		
Sulfur	5.0	.29	.82		
Strontium	1.0	.01	.03		
Thallium	1.0	.17	.13		
Tin	10	.15	.14		
Titanium	5.0	.048	.14		
Tungsten	10	.93	.94		
Vanadium	1.0	.09	.13		
Zinc	2.0	.091	.16		

9.1.1
9

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC27756
Account: CDRMRHCT - CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22401
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date:

Metal

Zirconium 5.0 .076 .088

Associated samples MP22401: MC27756-1, MC27756-2, MC27756-3

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: MC27756
 Account: CDRMRHCT - CDR Maguire
 Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22401
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date: 01/21/14 01/21/14

Metal	BSP Result	Spikelot MPICP	% Rec	QC Limits	BSD Result	Spikelot MPICP	% Rec	BSD RPD	QC Limit
Aluminum									
Antimony									
Arsenic	53.1	50	106.2	80-120	52.5	50	105.0	1.1	20
Barium	204	200	102.0	80-120	201	200	100.5	1.5	20
Beryllium									
Boron									
Cadmium	51.0	50	102.0	80-120	50.6	50	101.2	0.8	20
Calcium									
Chromium	49.3	50	98.6	80-120	50.5	50	101.0	2.4	20
Cobalt									
Copper	anr								
Gold									
Iron									
Lead	101	100	101.0	80-120	99.6	100	99.6	1.4	20
Magnesium									
Manganese									
Molybdenum									
Nickel	anr								
Palladium									
Platinum									
Potassium									
Selenium	50.1	50	100.2	80-120	49.1	50	98.2	2.0	20
Silicon									
Silver	19.5	20	97.5	80-120	20.3	20	101.5	4.0	20
Sodium									
Sulfur									
Strontium									
Thallium									
Tin									
Titanium									
Tungsten									
Vanadium									
Zinc	anr								

9.1.2
9

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC27756
Account: CDRMRHCT - CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22401
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date:

Metal

Zirconium

Associated samples MP22401: MC27756-1, MC27756-2, MC27756-3

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: MC27756
 Account: CDRMRHCT - CDR Maguire
 Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22401
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date: 01/21/14

Metal	LCS Result	Spikelot MPLCS78	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	87.9	94.5	93.0	82-117
Barium	153	166	92.2	83-116
Beryllium				
Boron				
Cadmium	57.4	59.9	95.8	84-116
Calcium				
Chromium	62.8	69.3	90.6	81-119
Cobalt				
Copper	anr			
Gold				
Iron				
Lead	82.2	91.7	89.6	82-118
Magnesium				
Manganese				
Molybdenum				
Nickel	anr			
Palladium				
Platinum				
Potassium				
Selenium	151	159	95.0	79-121
Silicon				
Silver	31.2	33.9	92.0	66-134
Sodium				
Sulfur				
Strontium				
Thallium				
Tin				
Titanium				
Tungsten				
Vanadium				
Zinc	anr			

9.1.2
 9

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC27756
Account: CDRMRHCT - CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22401
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date:

Metal

Zirconium

Associated samples MP22401: MC27756-1, MC27756-2, MC27756-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: MC27756
 Account: CDRMRHCT - CDR Maguire
 Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22401
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: ug/l

Prep Date: 01/21/14

Metal	MC27753-7 Original SDL 1:5		%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	31.3	36.1	15.3 (a)	0-10
Barium	375	400	6.9	0-10
Beryllium				
Boron				
Cadmium	192	202	5.2	0-10
Calcium				
Chromium	4720	5050	7.0	0-10
Cobalt				
Copper	anr			
Gold				
Iron				
Lead	352	378	7.3	0-10
Magnesium				
Manganese				
Molybdenum				
Nickel	anr			
Palladium				
Platinum				
Potassium				
Selenium	3.90	0.00	100.0(a)	0-10
Silicon				
Silver	41.7	43.9	5.3	0-10
Sodium				
Sulfur				
Strontium				
Thallium				
Tin				
Titanium				
Tungsten				
Vanadium				
Zinc	anr			

9.1.3
9

SERIAL DILUTION RESULTS SUMMARY

Login Number: MC27756
Account: CDRMRHCT - CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22401
Matrix Type: SOLID

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

Zirconium

Associated samples MP22401: MC27756-1, MC27756-2, MC27756-3

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: MC27756
Account: CDRMRHCT - CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22407
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date: 01/22/14

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.033	.0029	.0097	-0.00067	<0.033

Associated samples MP22407: MC27756-1, MC27756-2, MC27756-3, MC27756-4, MC27756-5, MC27756-6, MC27756-7, MC27756-8, MC27756-9

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: MC27756
 Account: CDRMRHCT - CDR Maguire
 Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22407
 Matrix Type: SOLID

Methods: SW846 7471B
 Units: mg/kg

Prep Date: 01/22/14 01/22/14

Metal	BSP Result	Spikelot HGRWS1	% Rec	QC Limits	BSD Result	Spikelot HGRWS1	% Rec	BSD RPD	QC Limit
Mercury	0.50	0.5	100.0	80-120	0.49	0.5	98.0	2.0	20

Associated samples MP22407: MC27756-1, MC27756-2, MC27756-3, MC27756-4, MC27756-5, MC27756-6, MC27756-7, MC27756-8, MC27756-9

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

9.2.2
 9

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC27756
 Account: CDRMRHCT - CDR Maguire
 Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22407
 Matrix Type: SOLID

Methods: SW846 7471B
 Units: mg/kg

Prep Date: 01/22/14

Metal	LCS Result	Spikelot HGLCS78	% Rec	QC Limits
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Mercury 4.3 4.05 106.2 72-128

Associated samples MP22407: MC27756-1, MC27756-2, MC27756-3, MC27756-4, MC27756-5, MC27756-6, MC27756-7, MC27756-8, MC27756-9

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC27756
Account: CDRMRHCT - CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22409
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date: 01/22/14

Metal	RL	IDL	MDL	MB raw	final
Aluminum	20	.61	3.6		
Antimony	1.0	.11	.15		
Arsenic	1.0	.22	.21	0.020	<1.0
Barium	5.0	.019	.073	0.10	<5.0
Beryllium	0.40	.008	.024		
Boron	10	.081	.11		
Cadmium	0.40	.022	.042	0.010	<0.40
Calcium	500	.85	6.3		
Chromium	1.0	.074	.095	-0.010	<1.0
Cobalt	5.0	.028	.047		
Copper	2.5	.086	.56		
Gold	5.0	.18	.43		
Iron	10	.44	.87		
Lead	1.0	.16	.17	0.030	<1.0
Magnesium	500	4.3	5.1		
Manganese	1.5	.017	.04		
Molybdenum	10	.04	.07		
Nickel	4.0	.045	.044		
Palladium	5.0	.2	.64		
Platinum	5.0	.87	1.5		
Potassium	500	2.4	8.6		
Selenium	1.0	.14	.35	0.12	<1.0
Silicon	10	.21	3.3		
Silver	0.50	.047	.13	-0.010	<0.50
Sodium	500	4.2	3.3		
Sulfur	5.0	.29	.82		
Strontium	1.0	.01	.03		
Thallium	1.0	.17	.13		
Tin	10	.15	.14		
Titanium	5.0	.048	.14		
Tungsten	10	.93	.94		
Vanadium	1.0	.09	.13		
Zinc	2.0	.091	.16		

9.3.1
9

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC27756
Account: CDRMRHCT - CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22409
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date:

Metal

Zirconium 5.0 .076 .088

Associated samples MP22409: MC27756-4, MC27756-5, MC27756-6, MC27756-7, MC27756-8, MC27756-9, MC27756-10, MC27756-11

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: MC27756
 Account: CDRMRHCT - CDR Maguire
 Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22409
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date: 01/22/14 01/22/14

Metal	BSP Result	Spikelot MPICP	% Rec	QC Limits	BSD Result	Spikelot MPICP	% Rec	BSD RPD	QC Limit
Aluminum									
Antimony	anr								
Arsenic	52.8	50	105.6	80-120	52.3	50	104.6	1.0	20
Barium	208	200	104.0	80-120	203	200	101.5	2.4	20
Beryllium	anr								
Boron									
Cadmium	51.6	50	103.2	80-120	50.7	50	101.4	1.8	20
Calcium									
Chromium	48.9	50	97.8	80-120	48.3	50	96.6	1.2	20
Cobalt	anr								
Copper	anr								
Gold									
Iron	anr								
Lead	98.5	100	98.5	80-120	97.2	100	97.2	1.3	20
Magnesium									
Manganese									
Molybdenum	anr								
Nickel	anr								
Palladium									
Platinum									
Potassium									
Selenium	49.3	50	98.6	80-120	49.0	50	98.0	0.6	20
Silicon									
Silver	20.9	20	104.5	80-120	20.3	20	101.5	2.9	20
Sodium									
Sulfur									
Strontium									
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium	anr								
Zinc	anr								

9.3.2
9

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC27756
Account: CDRMRHCT - CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22409
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date:

Metal

Zirconium

Associated samples MP22409: MC27756-4, MC27756-5, MC27756-6, MC27756-7, MC27756-8, MC27756-9, MC27756-10, MC27756-11

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: MC27756
 Account: CDRMRHCT - CDR Maguire
 Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22409
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date: 01/22/14

Metal	LCS Result	Spikelot MPLCS78	% Rec	QC Limits
Aluminum				
Antimony	anr			
Arsenic	89.5	94.5	94.7	82-117
Barium	158	166	95.2	83-116
Beryllium	anr			
Boron				
Cadmium	61.8	59.9	103.2	84-116
Calcium				
Chromium	66.0	69.3	95.2	81-119
Cobalt	anr			
Copper	anr			
Gold				
Iron	anr			
Lead	84.2	91.7	91.8	82-118
Magnesium				
Manganese				
Molybdenum	anr			
Nickel	anr			
Palladium				
Platinum				
Potassium				
Selenium	154	159	96.9	79-121
Silicon				
Silver	34.8	33.9	102.7	66-134
Sodium				
Sulfur				
Strontium				
Thallium	anr			
Tin				
Titanium				
Tungsten				
Vanadium	anr			
Zinc	anr			

9.3.2
9

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC27756
Account: CDRMRHCT - CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22409
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date:

Metal

Zirconium

Associated samples MP22409: MC27756-4, MC27756-5, MC27756-6, MC27756-7, MC27756-8, MC27756-9, MC27756-10, MC27756-11

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: MC27756
 Account: CDRMRHCT - CDR Maguire
 Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22409
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: ug/l

Prep Date: 01/22/14

Metal	MC27760-3 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony	anr			
Arsenic	60.3	73.0	21.1 (a)	0-10
Barium	1420	1530	8.0	0-10
Beryllium	anr			
Boron				
Cadmium	2.70	3.20	18.5 (a)	0-10
Calcium				
Chromium	105	115	9.6	0-10
Cobalt	anr			
Copper	anr			
Gold				
Iron	anr			
Lead	757	822	8.6	0-10
Magnesium				
Manganese				
Molybdenum	anr			
Nickel	anr			
Palladium				
Platinum				
Potassium				
Selenium	4.60	0.00	100.0(a)	0-10
Silicon				
Silver	0.00	0.00	NC	0-10
Sodium				
Sulfur				
Strontium				
Thallium	anr			
Tin				
Titanium				
Tungsten				
Vanadium	anr			
Zinc	anr			

9.3.3
9

SERIAL DILUTION RESULTS SUMMARY

Login Number: MC27756
Account: CDRMRHCT - CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22409
Matrix Type: SOLID

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

Zirconium

Associated samples MP22409: MC27756-4, MC27756-5, MC27756-6, MC27756-7, MC27756-8, MC27756-9, MC27756-10, MC27756-11

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).

POST DIGESTATE SPIKE SUMMARY

Login Number: MC27756
 Account: CDRMRHCT - CDR Maguire
 Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22409
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: ug/l

Prep Date:

01/22/14

Metal	Sample ml	Final ml	MC27760-3 Raw	PS Corr.**	ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic										
Barium	10	10.2	1417	1389.216	3847	.1	280	2745.098	89.5	80-120
Beryllium										
Boron										
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper										
Gold										
Iron										
Lead										
Magnesium										
Manganese										
Molybdenum										
Nickel										
Palladium										
Platinum										
Potassium										
Selenium										
Silicon										
Silver										
Sodium										
Sulfur										
Strontium										
Thallium										
Tin										
Titanium										
Tungsten										
Vanadium										
Zinc										

9.3.4
 9

POST DIGESTATE SPIKE SUMMARY

Login Number: MC27756
Account: CDRMRHCT - CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22409
Matrix Type: SOLID

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

Zirconium

Associated samples MP22409: MC27756-4, MC27756-5, MC27756-6, MC27756-7, MC27756-8, MC27756-9, MC27756-10, MC27756-11

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC27756
Account: CDRMRHCT - CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22414
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date: 01/23/14

Metal	RL	IDL	MDL	MB	
				raw	final
Mercury	0.033	.0029	.0097	-0.0030	<0.033

Associated samples MP22414: MC27756-10, MC27756-11, MC27756-12

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: MC27756
 Account: CDRMRHCT - CDR Maguire
 Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22414 Methods: SW846 7471B
 Matrix Type: SOLID Units: mg/kg

Prep Date: 01/23/14 01/23/14

Metal	BSP Result	Spikelot HGRWS1	% Rec	QC Limits	BSD Result	Spikelot HGRWS1	% Rec	BSD RPD	QC Limit
Mercury	0.49	0.5	98.0	80-120	0.49	0.5	98.0	0.0	20

Associated samples MP22414: MC27756-10, MC27756-11, MC27756-12

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: MC27756
Account: CDRMRHCT - CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22414
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date: 01/23/14

Metal	LCS Result	Spikelot HGLCS78	% Rec	QC Limits
Mercury	4.1	4.05	101.2	72-128

Associated samples MP22414: MC27756-10, MC27756-11, MC27756-12

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC27756
Account: CDRMRHCT - CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22416
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date: 01/23/14

Metal	RL	IDL	MDL	MB raw	final
Aluminum	20	.61	3.6		
Antimony	1.0	.11	.15		
Arsenic	1.0	.22	.21	0.15	<1.0
Barium	5.0	.019	.073	0.10	<5.0
Beryllium	0.40	.008	.024		
Boron	10	.081	.11		
Cadmium	0.40	.022	.042	0.020	<0.40
Calcium	500	.85	6.3		
Chromium	1.0	.074	.095	-0.030	<1.0
Cobalt	5.0	.028	.047		
Copper	2.5	.086	.56		
Gold	5.0	.18	.43		
Iron	10	.44	.87		
Lead	1.0	.16	.17	0.060	<1.0
Magnesium	500	4.3	5.1		
Manganese	1.5	.017	.04		
Molybdenum	10	.04	.07		
Nickel	4.0	.045	.044		
Palladium	5.0	.2	.64		
Platinum	5.0	.87	1.5		
Potassium	500	2.4	8.6		
Selenium	1.0	.14	.35	0.090	<1.0
Silicon	10	.21	3.3		
Silver	0.50	.047	.13	-0.020	<0.50
Sodium	500	4.2	3.3		
Sulfur	5.0	.29	.82		
Strontium	1.0	.01	.03		
Thallium	1.0	.17	.13		
Tin	10	.15	.14		
Titanium	5.0	.048	.14		
Tungsten	10	.93	.94		
Vanadium	1.0	.09	.13		
Zinc	2.0	.091	.16		

9.5.1
9

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC27756
Account: CDRMRHCT - CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22416
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date:

Metal

Zirconium 5.0 .076 .088

Associated samples MP22416: MC27756-12

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: MC27756
 Account: CDRMRHCT - CDR Maguire
 Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22416
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date: 01/23/14 01/23/14

Metal	BSP Result	Spikelot MPICP	% Rec	QC Limits	BSD Result	Spikelot MPICP	% Rec	BSD RPD	QC Limit
Aluminum									
Antimony									
Arsenic	54.7	50	109.4	80-120	53.7	50	107.4	1.8	20
Barium	204	200	102.0	80-120	199	200	99.5	2.5	20
Beryllium									
Boron									
Cadmium	52.1	50	104.2	80-120	51.1	50	102.2	1.9	20
Calcium									
Chromium	51.3	50	102.6	80-120	50.7	50	101.4	1.2	20
Cobalt									
Copper									
Gold									
Iron									
Lead	102	100	102.0	80-120	101	100	101.0	1.0	20
Magnesium									
Manganese									
Molybdenum									
Nickel									
Palladium									
Platinum									
Potassium									
Selenium	51.7	50	103.4	80-120	50.9	50	101.8	1.6	20
Silicon									
Silver	19.8	20	99.0	80-120	19.2	20	96.0	3.1	20
Sodium									
Sulfur									
Strontium									
Thallium									
Tin									
Titanium									
Tungsten									
Vanadium									
Zinc									

9.5.2
9

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC27756
Account: CDRMRHCT - CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22416
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date:

Metal

Zirconium

Associated samples MP22416: MC27756-12

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: MC27756
 Account: CDRMRHCT - CDR Maguire
 Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22416
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date: 01/23/14

Metal	LCS Result	Spikelot MPLCS78	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	88.1	94.5	93.2	82-117
Barium	154	166	92.8	83-116
Beryllium				
Boron				
Cadmium	57.5	59.9	96.0	84-116
Calcium				
Chromium	65.2	69.3	94.1	81-119
Cobalt				
Copper				
Gold				
Iron				
Lead	85.9	91.7	93.7	82-118
Magnesium				
Manganese				
Molybdenum				
Nickel				
Palladium				
Platinum				
Potassium				
Selenium	153	159	96.2	79-121
Silicon				
Silver	31.2	33.9	92.0	66-134
Sodium				
Sulfur				
Strontium				
Thallium				
Tin				
Titanium				
Tungsten				
Vanadium				
Zinc				

9.5.2
9

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC27756
Account: CDRMRHCT - CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22416
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date:

Metal

Zirconium

Associated samples MP22416: MC27756-12

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: MC27756
 Account: CDRMRHCT - CDR Maguire
 Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22416
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: ug/l

Prep Date: 01/23/14

Metal	MC27780-8 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	23.4	42.8	82.9 (a)	0-10
Barium	458	529	15.6 (b)	0-10
Beryllium				
Boron				
Cadmium	0.300	0.00	100.0(a)	0-10
Calcium				
Chromium	203	234	15.6 (b)	0-10
Cobalt				
Copper				
Gold				
Iron				
Lead	97.0	121	24.5 (b)	0-10
Magnesium				
Manganese				
Molybdenum				
Nickel				
Palladium				
Platinum				
Potassium				
Selenium	3.00	7.90	163.3(a)	0-10
Silicon				
Silver	0.00	0.00	NC	0-10
Sodium				
Sulfur				
Strontium				
Thallium				
Tin				
Titanium				
Tungsten				
Vanadium				
Zinc				

9.5.3
 9

SERIAL DILUTION RESULTS SUMMARY

Login Number: MC27756
Account: CDRMRHCT - CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22416
Matrix Type: SOLID

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

Zirconium

Associated samples MP22416: MC27756-12

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).

(b) Serial dilution indicates possible matrix interference.

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC27756
Account: CDRMRHCT - CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22418
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date: 01/23/14

Metal	RL	IDL	MDL	MB raw	final
Aluminum	0.20	.0061	.04		
Antimony	0.0060	.0011	.0019		
Arsenic	0.010	.0022	.0029	0.00020	<0.010
Barium	0.50	.00019	.00081	0.00030	<0.50
Beryllium	0.0040	.00008	.00025		
Boron	0.10	.00081	.0014		
Cadmium	0.0040	.00022	.0005	0.00020	<0.0040
Calcium	5.0	.0085	.038		
Chromium	0.010	.00074	.0014	-0.00040	<0.010
Cobalt	0.050	.00028	.0004		
Copper	0.025	.00086	.007		
Gold	0.050	.0018	.005		
Iron	0.10	.0044	.02		
Lead	0.010	.0016	.0017	0.00010	<0.010
Magnesium	5.0	.043	.059		
Manganese	0.015	.00017	.00081		
Molybdenum	0.10	.0004	.00077		
Nickel	0.040	.00045	.00057		
Palladium	0.050	.002	.0076		
Platinum	0.050	.0087	.014		
Potassium	5.0	.024	.16		
Selenium	0.025	.0014	.0048	0.0015	<0.025
Silicon	0.10	.0021	.045		
Silver	0.0050	.00047	.001	0.00030	<0.0050
Sodium	5.0	.042	.06		
Sulfur	0.050	.0029	.008		
Strontium	0.010	.0001	.00026		
Thallium	0.0050	.0017	.0019		
Tin	0.10	.0015	.0014		
Titanium	0.050	.00048	.0018		
Tungsten	0.10	.0093	.016		
Vanadium	0.010	.0009	.0028		
Zinc	0.10	.00091	.0005		

9.6.1
9

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC27756
Account: CDRMRHCT - CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22418
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date:

Metal

Zirconium 0.050 .00076 .0022

Associated samples MP22418: MC27756-1A, MC27756-2A, MC27756-3A, MC27756-4A, MC27756-5A, MC27756-6A, MC27756-7A, MC27756-8A, MC27756-9A, MC27756-10A, MC27756-11A, MC27756-12A

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: MC27756
 Account: CDRMRHCT - CDR Maguire
 Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22418
 Matrix Type: LEACHATE

Methods: SW846 6010C
 Units: mg/l

Prep Date: 01/23/14

Metal	MC27756-1A Original MS		Spike/lot MPICP	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic	0.0	0.53	0.50	106.0	75-125
Barium	0.081	2.1	2.0	101.0	75-125
Beryllium					
Boron					
Cadmium	0.0	0.51	0.50	102.0	75-125
Calcium					
Chromium	0.0029	0.52	0.50	103.4	75-125
Cobalt					
Copper					
Gold					
Iron					
Lead	0.010	1.0	1.0	99.0	75-125
Magnesium					
Manganese					
Molybdenum					
Nickel					
Palladium					
Platinum					
Potassium					
Selenium	0.0032	0.51	0.50	101.4	75-125
Silicon					
Silver	0.0	0.20	0.20	100.0	75-125
Sodium					
Sulfur					
Strontium					
Thallium					
Tin					
Titanium					
Tungsten					
Vanadium					
Zinc					

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MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC27756
Account: CDRMRHCT - CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22418
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date:

Metal

Zirconium

Associated samples MP22418: MC27756-1A, MC27756-2A, MC27756-3A, MC27756-4A, MC27756-5A, MC27756-6A, MC27756-7A, MC27756-8A, MC27756-9A, MC27756-10A, MC27756-11A, MC27756-12A

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: MC27756
 Account: CDRMRHCT - CDR Maguire
 Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22418
 Matrix Type: LEACHATE

Methods: SW846 6010C
 Units: mg/l

Prep Date: 01/23/14

Metal	MC27756-1A Original MSD		Spike/lot MPICP	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	0.0	0.54	0.50	108.0	1.9	20
Barium	0.081	2.1	2.0	101.0	0.0	20
Beryllium						
Boron						
Cadmium	0.0	0.51	0.50	102.0	0.0	20
Calcium						
Chromium	0.0029	0.52	0.50	103.4	0.0	20
Cobalt						
Copper						
Gold						
Iron						
Lead	0.010	1.0	1.0	99.0	0.0	20
Magnesium						
Manganese						
Molybdenum						
Nickel						
Palladium						
Platinum						
Potassium						
Selenium	0.0032	0.51	0.50	101.4	0.0	20
Silicon						
Silver	0.0	0.19	0.20	95.0	5.1	20
Sodium						
Sulfur						
Strontium						
Thallium						
Tin						
Titanium						
Tungsten						
Vanadium						
Zinc						

9.6.2
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MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC27756
Account: CDRMRHCT - CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22418
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date:

Metal

Zirconium

Associated samples MP22418: MC27756-1A, MC27756-2A, MC27756-3A, MC27756-4A, MC27756-5A, MC27756-6A, MC27756-7A, MC27756-8A, MC27756-9A, MC27756-10A, MC27756-11A, MC27756-12A

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: MC27756
 Account: CDRMRHCT - CDR Maguire
 Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22418
 Matrix Type: LEACHATE

Methods: SW846 6010C
 Units: mg/l

Prep Date: 01/23/14 01/23/14

Metal	BSP Result	Spikelot MPICP	% Rec	QC Limits	BSD Result	Spikelot MPICP	% Rec	BSD RPD	QC Limit
Aluminum									
Antimony									
Arsenic	0.54	0.50	108.0	80-120	0.53	0.50	106.0	1.9	20
Barium	2.0	2.0	100.0	80-120	2.0	2.0	100.0	0.0	20
Beryllium									
Boron									
Cadmium	0.51	0.50	102.0	80-120	0.51	0.50	102.0	0.0	20
Calcium									
Chromium	0.52	0.50	104.0	80-120	0.52	0.50	104.0	0.0	20
Cobalt									
Copper									
Gold									
Iron									
Lead	1.0	1.0	100.0	80-120	1.0	1.0	100.0	0.0	20
Magnesium									
Manganese									
Molybdenum									
Nickel									
Palladium									
Platinum									
Potassium									
Selenium	0.51	0.50	102.0	80-120	0.51	0.50	102.0	0.0	20
Silicon									
Silver	0.19	0.20	95.0	80-120	0.20	0.20	100.0	5.1	20
Sodium									
Sulfur									
Strontium									
Thallium									
Tin									
Titanium									
Tungsten									
Vanadium									
Zinc									

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SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC27756
Account: CDRMRHCT - CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22418
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date:

Metal

Zirconium

Associated samples MP22418: MC27756-1A, MC27756-2A, MC27756-3A, MC27756-4A, MC27756-5A, MC27756-6A, MC27756-7A, MC27756-8A, MC27756-9A, MC27756-10A, MC27756-11A, MC27756-12A

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: MC27756
 Account: CDRMRHCT - CDR Maguire
 Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22418
 Matrix Type: LEACHATE

Methods: SW846 6010C
 Units: ug/l

Prep Date: 01/23/14

Metal	MC27756-1A Original SDL 1:5		%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	0.00	0.00	NC	0-10
Barium	81.1	84.0	3.6	0-10
Beryllium				
Boron				
Cadmium	0.00	0.00	NC	0-10
Calcium				
Chromium	2.90	0.00	100.0 (a)	0-10
Cobalt				
Copper				
Gold				
Iron				
Lead	10.2	15.6	52.9 (a)	0-10
Magnesium				
Manganese				
Molybdenum				
Nickel				
Palladium				
Platinum				
Potassium				
Selenium	3.20	0.00	100.0 (a)	0-10
Silicon				
Silver	0.00	2.40	NC	0-10
Sodium				
Sulfur				
Strontium				
Thallium				
Tin				
Titanium				
Tungsten				
Vanadium				
Zinc				

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SERIAL DILUTION RESULTS SUMMARY

Login Number: MC27756
Account: CDRMRHCT - CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22418
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

Zirconium

Associated samples MP22418: MC27756-1A, MC27756-2A, MC27756-3A, MC27756-4A, MC27756-5A, MC27756-6A, MC27756-7A, MC27756-8A, MC27756-9A, MC27756-10A, MC27756-11A, MC27756-12A

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: MC27756
Account: CDRMRHCT - CDR Maguire
Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22420
Matrix Type: LEACHATE

Methods: SW846 7470A
Units: mg/l

Prep Date: 01/23/14

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.00020	.000018	.000067	-0.000021	<0.00020

Associated samples MP22420: MC27756-1A, MC27756-2A, MC27756-3A, MC27756-4A, MC27756-5A, MC27756-6A, MC27756-7A, MC27756-8A, MC27756-9A, MC27756-10A, MC27756-11A, MC27756-12A

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: MC27756
 Account: CDRMRHCT - CDR Maguire
 Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22420
 Matrix Type: LEACHATE

Methods: SW846 7470A
 Units: mg/l

Prep Date: 01/23/14

Metal	MC27756-1A Original MS	SpikeLot HGRWS1	% Rec	QC Limits
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Mercury 0.0 0.0031 0.0030 103.3 75-125

Associated samples MP22420: MC27756-1A, MC27756-2A, MC27756-3A, MC27756-4A, MC27756-5A, MC27756-6A, MC27756-7A, MC27756-8A, MC27756-9A, MC27756-10A, MC27756-11A, MC27756-12A

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: MC27756
 Account: CDRMRHCT - CDR Maguire
 Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22420 Methods: SW846 7470A
 Matrix Type: LEACHATE Units: mg/l

Prep Date: 01/23/14

Metal	MC27756-1A Original MSD	SpikeLot HGRWS1	% Rec	MSD RPD	QC Limit
Mercury	0.0	0.0031	0.0030	103.3	0.0

Associated samples MP22420: MC27756-1A, MC27756-2A, MC27756-3A, MC27756-4A, MC27756-5A, MC27756-6A, MC27756-7A, MC27756-8A, MC27756-9A, MC27756-10A, MC27756-11A, MC27756-12A

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

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SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC27756
 Account: CDRMRHCT - CDR Maguire
 Project: Bridge No.1127-Rte 80 Over Farm River North Branford, CT

QC Batch ID: MP22420 Methods: SW846 7470A
 Matrix Type: LEACHATE Units: mg/l

Prep Date: 01/23/14 01/23/14

Metal	BSP Result	Spikelot HGRWS1	% Rec	QC Limits	BSD Result	Spikelot HGRWS1	% Rec	BSD RPD	QC Limit
Mercury	0.0031	0.0030	103.3	80-120	0.0031	0.0030	103.3	0.0	

Associated samples MP22420: MC27756-1A, MC27756-2A, MC27756-3A, MC27756-4A, MC27756-5A, MC27756-6A, MC27756-7A, MC27756-8A, MC27756-9A, MC27756-10A, MC27756-11A, MC27756-12A

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: Replacement of bridge #01127, Route 80 - North Branford, CT

Laboratory: Accutest Laboratories

Laboratory Report: MC27709, MC27756

Date Samples Collected: January 16 & 17, 2014

Describe the intended use of the data: To verify the absence or presence and location of subsurface contamination, and to assess the potential pollutant impacts that may be encountered during construction

Nonconformance DQA Review Elements	Briefly Summarize DQA Nonconformance
Standard RCP Deliverables	
Data Package Inspection	
Reasonable Confidence Evaluation	
Chain of Custody Evaluation	
Sample Result Evaluation	
Sample Preservation & Holding Time Evaluation	
Blank Evaluation	Method criteria shows potential high and low biases for VOCs, SVOCs and herbicides. Results meet technical requirements and not detected in samples.
Laboratory Control Samples	
Surrogates	
Site-Specific Matrix Spikes and Matrix Spike Duplicates	
Tentatively Identified Compounds	
Other QC Data	% Difference exceeds method criteria. Non-directional bias, no impact to data usability.

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 verify the absence or presence and location of subsurface contamination, and to assess the potential pollutant impacts that may be encountered during construction.

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 LCS, LCSD, LCS/LCSD RPD, Surrogates and QC Recovery responses do not have significant bearings on the accuracy and usability of the data for its intended purposes. In all cases the non-conformances have no impact to the data usability and is considered of sufficient quality and precision using multiple lines of evidence.

The data indicates that contaminants are present in the soil and sediment at low to elevated concentrations that exceed applicable RSR criteria. Task 310 Plans and Specifications will be prepared to address the soil contamination during the construction phase.

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 soil in areas requiring special treatment and/or handling during the construction phase of the project.

RCP DATA QUALITY ASSESSMENT & DATA USABILITY EVALUATION WORKSHEET - SOIL SAMPLES
Replacement of bridge #01127, Route 80 - North Branford, CT

Laboratory:	Accutest Laboratories
SDG:	MC27709
Date Samples Collected:	1/16/2014
RCP Certification Form Included:	Yes
Lab Case Narrative Included:	Yes
Project Purpose:	Data will be used to verify the absence or presence and location of subsurface contamination, and to assess the potential pollutant impacts that may be encountered during construction
Notes:	(see notes at end of DQA)

Sample ID	Sample Date	Compound(s)	QC OUTLIER	POTENTIAL BIAS	COMMENTS	PRELIMINARY DUE CONSIDERATIONS/NOTES
Chlorinated Herbicides						
SED-1	1/16/2014	2,4,5-T	Blank Spike	High	Analytes above upper control limit. Elevated concentrations not detected in samples	No impact to data usability
SED-2						
SED-3						
SED-4						
ICP Metals - Soil						
SED-1	1/16/2014	Arsenic, Cadmium, Chromium, Selenium	% DIF	Non-Directional	Recoveries outside QC limits. Elevated concentrations not detected in samples	No impact to data usability
SED-2						
SED-3						
SED-4						
GP-4 1'-3'						
GP-5 1'-3'						
GP-13 1'-3'						
GP-14 2'-4'						
GP-17 1'-3'						
GP-18 1'-3'						
SED-1	1/16/2014	Arsenic, Cadmium, Silver, Selenium	% DIF	Non-Directional	No criteria reported	No impact to data usability
SED-2						
SED-3						
SED-4						
GP-4 1'-3'						
GP-5 1'-3'						
GP-13 1'-3'						
GP-14 2'-4'						
GP-17 1'-3'						
GP-18 1'-3'						

RCP DATA QUALITY ASSESSMENT & DATA USABILITY EVALUATION WORKSHEET - SOIL SAMPLES
Replacement of bridge #01127, Route 80 - North Branford, CT

Laboratory:	Accutest Laboratories
SDG:	MC27756
Date Samples Collected:	1/17/2014
RCP Certification Form Included:	Yes
Lab Case Narrative Included:	Yes
Project Purpose:	Data will be used to verify the absence or presence and location of subsurface contamination, and to assess the potential pollutant impacts that may be encountered during construction
Notes:	(see notes at end of DQA)

Sample ID	Sample Date	Compound(s)	QC OUTLIER	POTENTIAL BIAS	COMMENTS	PRELIMINARY DUE CONSIDERATIONS/NOTES
VOC Analysis - 8260						
GP-1 1'-3'	1/17/2014	Chloroethane	Blank Spike	High	Analytes above upper control limit. Meets program technical requirements	No impact to data usability
GP-2 1'-3'						
GP-3 4'-8'						
GP-6 2'-4'						
GP-7 1'-3'						
GP-8 1'-3'						
GP-9 1'-3'						
GP-10 1'-3'						
GP-11 2'-4'						
GP-12 2'-4'						
GP-15 1'-3'						
GP-16 1'-3'						
SVOC Analysis - 8270						
GP-1 1'-3'	1/17/2014	2,4-Dinitrophenol, 4,6-Dinitro-o-cresol, Aniline, 4-Chloroaniline, Hexachlorocyclopentadiene, Pyridine	Blank Spike	Low	Analytes below lower control limit. Meets program technical requirements	No impact to data usability
GP-2 1'-3'						
GP-3 4'-8'						
GP-6 2'-4'						
GP-7 1'-3'						
GP-8 1'-3'						
GP-9 1'-3'						
GP-10 1'-3'						
GP-11 2'-4'						
GP-12 2'-4'						
GP-15 1'-3'						
GP-16 1'-3'						

ICP Metals - Soil						
GP-1 1'-3'	1/17/2014	Arsenic, Selenium	% DIF	Non-Directional	Recoveries outside QC limits. Elevated concentrations not detected in samples	No impact to data usability
GP-2 1'-3'						
GP-3 4'-8'						
GP-6 2'-4'	1/17/2014	Arsenic, Cadmium, Selenium	% DIF	Non-Directional	Recoveries outside QC limits. Elevated concentrations not detected in samples	No impact to data usability
GP-7 1'-3'						
GP-8 1'-3'						
GP-9 1'-3'						
GP-10 1'-3'						
GP-11 2'-4'						
GP-12 2'-4'						
GP-15 1'-3'						
GP-16 1'-3'	1/17/2014	Arsenic, Cadmium, Selenium	% DIF	Non-Directional	Recoveries outside QC limits. Elevated concentrations not detected in samples	No impact to data usability
GP-16 1'-3'	1/17/2014	Barium, Chromium, Lead	% DIF	Non-Directional	Recoveries outside QC limits. Serial dilution indicates possible matrix interference	No impact to data usability
GP-16 1'-3'	1/17/2014	Silver	% DIF	Non-Directional	No criteria reported	No impact to data usability
GP-1 1'-3'	1/17/2014	Chromium, Lead, Selenium	% DIF	Non-Directional	Recoveries outside QC limits. Elevated concentrations not detected in samples	No impact to data usability
GP-2 1'-3'						
GP-3 4'-8'						
GP-6 2'-4'						
GP-7 1'-3'						
GP-8 1'-3'						
GP-9 1'-3'						
GP-10 1'-3'						
GP-11 2'-4'						
GP-12 2'-4'						
GP-15 1'-3'						
GP-16 1'-3'						
GP-1 1'-3'						
GP-2 1'-3'						
GP-3 4'-8'						
GP-6 2'-4'						
GP-7 1'-3'						
GP-8 1'-3'						
GP-9 1'-3'						
GP-10 1'-3'						
GP-11 2'-4'						
GP-12 2'-4'						
GP-15 1'-3'						
GP-16 1'-3'						

RCP DATA QUALITY ASSESSMENT & DATA USABILITY EVALUATION WORKSHEET - AQUEOUS SAMPLES
Replacement of bridge #01127, Route 80 - North Branford, CT

Laboratory:	Accutest Laboratories
SDG:	MC27709
Date Samples Collected:	1/16/2014
RCP Certification Form Included:	Yes
Lab Case Narrative Included:	Yes
Project Purpose:	Data will be used to verify the absence or presence and location of subsurface contamination, and to assess the potential pollutant impacts that may be encountered during construction
Notes:	(see notes at end of DQA)

Sample ID	Sample Date	Compound(s)	QC OUTLIER	POTENTIAL BIAS	COMMENTS	PRELIMINARY DUE CONSIDERATIONS/NOTES
VOC Analysis - 8260						
TB-1	1/16/2014	Acetone	Blank Spike	Low	Analytes below lower control limit. Blank spike meets program technical requirements	No impact to data usability
TB-1	1/16/2014	Chloromethane	Blank Spike	High	Analytes above upper control limit. Blank spike meets program technical requirements	No impact to data usability