May 14, 2012
File No. 1753-03-01

Phase II Environmental Site Assessment

Former Lunt Silversmiths, Inc.
298 Federal Street
Greenfield, Massachusetts

Prepared For:

Town of Greenfield
114 Main Street
Greenfield, Massachusetts 01301

Prepared By:

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File No. 1753-03-01
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Mr. Robert Pyers
Director of Economic Development and Marketing
Town of Greenfield
114 Main Street
Greenfield, MA 01301

Re: Brownfield Phase II Environmental Site Assessment Report
Lunt Silversmith Site
298 Federal Street
Greenfield, Massachusetts

Dear Mr. Pyers:

O'Reilly, Talbot & Okun Associates, Inc. (OTO) is pleased to present this Phase II environmental site assessment of the former Lunt Silversmith site. This report presents our assessment of site soil, groundwater, soil gas, and indoor air conditions, and provides preliminary cost estimates for remediation.

We appreciate the opportunity to work with you on this project. Should you have any questions regarding the report, please do not hesitate to contact us.

Sincerely,
O'Reilly, Talbot & Okun Associates, Inc.

Valerie D. Tillinghast; LSP
Associate

Kevin J. O'Reilly; LSP
Principal

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1.0 INTRODUCTION

This report presents the results of a Phase II Environmental Site Assessment performed at the former Lunt Silversmiths site at 298 Federal Street in Greenfield, Massachusetts. A Site locus is attached as Figure 1. A site plan showing the property subject to this assessment is provided as Figure 2. The term "Site" as used in this document refers to the study area at 298 Federal Street, including the baseball fields west of the former manufacturing area, but not the northeastern portion of the building (parcel 95-1-UTA).

Our assessment was conducted in accordance with the scope of work identified in our December 6, 2011 proposal the Town of Greenfield, and follows guidance provided in ASTM's "Standard Guide for Environmental Site Assessment: Phase II Environmental Site Assessment Process", Standard E1903-11. The objectives of our assessment were to:

- evaluate the Recognized Environmental Conditions (RECs) identified in the October 19, 2011 Phase I Environmental Site Assessment (ESA) prepared by Weston & Sampson Engineers, Inc. (W&S, 2011);
- render an opinion as to the potential presence of oil or hazardous materials in the soil and groundwater at the Site; and
- develop preliminary remedial cost estimates.

Our study included the assessment of soil, groundwater, soil gas, and indoor air conditions at the Site. Two conditions were identified which require assessment under the Massachusetts Contingency Plan (MCP). These are metals in Site soil, and chlorinated volatile organic compounds (CVOCs), primarily trichloroethylene (TCE), in Site soil and groundwater. The primary exposure route of concern for the CVOCs is inhalation of vapors in indoor air inside Site buildings. CVOC-impacted groundwater has migrated from the Site into the municipal storm drain system. This migration route may require further assessment.

Background information on the Site is provided in Section 2.0, and includes a description of the Site and discussion of the previously identified RECs at the property. Section 3.0 describes the Phase II activities conducted by OTO, and presents analytical results. A conceptual site model and discussion of conditions to address is provided in Section 4.0. Section 5.0 provides preliminary cost estimates. Section 6.0 provides a summary of the Phase II assessment and conclusions.

This report is subject to the limitations in Appendix A.

2.0 BACKGROUND

This section provides a description of the Site and the RECs identified at the Site by the Phase I ESA.

2.1 SITE DESCRIPTION / SITE SETTING

2.1.1 General Description

The Site is an industrially-zoned property located at 298 Federal Street in Greenfield Massachusetts. The property is identified in Town of Greenfield assessor's records as parcel 95-1-UTB, and includes approximately 10.6 acres of land. The attached parcel 95-1-UTA on the northeast has different ownership and was not included in this assessment. Assessor's records indicate the original Site building was constructed in 1850. Multiple additions were made to the building over time. The Site building is listed as having a finished area of approximately 74,280 square feet. The series of interconnected buildings include one- and two-story portions constructed primarily of brick.

The property is bounded by Norwood Street on the north, Federal Street on the east, Kenwood Street on the south, and Davis Street on the west. Residential neighborhoods are located to the north, south, and west. Development to the east, across Federal Street, is primarily commercial.

The Site buildings are serviced by municipal water and sewer systems, and are heated by fuel oil. Heating oil is stored in a 30,000 gallon above-ground tank constructed on the northwest corner of the Site building. The tank is enclosed in a concrete and cinder block building.

Exterior portions of the Site include paved parking areas on the east and west sides of the building. A landscaped garden is located on the east side of the building, near the main entrance. A grassed courtyard is present in the center of the Site building, and is accessible only by passing through the building. Three grassed baseball fields and associated recreational structures are located on the western end of the property. The fields are reportedly used by the Greenfield Minor League.

Local topography is generally flat at an approximate elevation of 260 feet above mean sea level. Site topography slopes gently downward to the west, toward the Green River, which is located approximately 5,500 feet to the west. The nearest surface water body is the Connecticut River, which is located approximately 4,000 feet to the east of the Site.

Soils in this area are mapped as fine glaciolacustrine deposits over thin till. Mapped bedrock outcrops are located approximately 500 feet southeast of the Site. Shallow bedrock has also been reported at the gasoline station across Federal Street, immediately east of the Site. Bedrock in the area is mapped as arkose interbedded with shaley siltstone and arkosic sandstone.

2.1.2 MCP Reporting Categories

The Massachusetts Contingency Plan (MCP) identifies different categories for soil and groundwater which are applicable when a reportable release condition is identified at a site. We reviewed applicable groundwater and soil reporting categories for this Site.

For groundwater, the MCP RCGW-1 category is applicable to groundwater within current or potential drinking water source areas. Current and potential drinking water source areas are defined as areas:

1. Within a Potentially Productive Aquifer (PPA);
2. Within a Zone II, or Interim Wellhead Protection Area for a public water supply;
3. Within the Zone A of a Class A surface water body used as a public water supply;
4. Within 500 feet of a private water supply well or greater than 500 feet from a public water supply distribution pipeline; or
5. Within a municipality designated aquifer protection area.

A copy of the MassGIS priority resource mapping for the area is provided as Figure 4. None of these features was identified at the Site. Additionally, the area is not within an aquifer protection district identified by the Town of Greenfield. The Site and vicinity are serviced by the municipal drinking water supply. Based on criteria outlined in the MCP, the Site groundwater classification is therefore RCGW-2 for release reporting purposes.

For soil, the MCP indicates that soils located within 500 feet of a residential dwelling and/or within an RCGW-1 groundwater area are classified as RCS-1. Based on the presence of residential properties to the north, south, and west of the Site, Site soils are classified as RCS-1 for release reporting purposes.

2.1.3 Goly's Garage

Goly's Garage (Goly's) is located across Kenwood Street to the south of the Site. Goly's street address is 286 Federal Street. The location of this facility is shown on Figure 2. In February 2010, a Class C Response Action Outcome report prepared on behalf of Goly's (ECS, 2010) was submitted to the MassDEP. That report included a Downgradient Property Status (DPS) opinion that suggested TCE detected in groundwater at Goly's was the result of migration from the Lunt property.

Two groundwater monitoring wells, MW-6 and MW-7, were installed near the southeastern Lunt property line as part of that assessment. Selected figures and data tables from the DPS report are attached in Appendix B. As shown on Table 5 from that report, the TCE concentration reported at MW-6 was 80.8 milligrams per liter (mg/l). TCE was also detected on Goly's property, west of the garage, at monitoring wells MW-9 and MW-10. Concentrations in the wells on Goly's property ranged from 0.001 to 0.005 mg/l, and are below the MCP GW-2 groundwater standard (0.03 mg/l).

Goly's Garage is a Conditionally Exempt Small Quantity Generator listed as generating several spent chlorinated solvents.

2.1.4 Phase I ESA Findings

A Phase I ESA dated October 19, 2011 was prepared by Weston & Sampson Engineers, Inc. (W&S, 2011). The ESA indicates the Site was used for industrial purposes for over 100 years, but is currently vacant. Past use of the facility was identified primarily as silverware manufacturing, but over the years included other products such as bicycle, car and airplane parts, surgical equipment, and military supplies.

The Phase I report identified the following Recognized Environmental Conditions (RECs) at the Site:

- REC-1: Historic use of the Site for manufacturing. Past industrial processes identified at the Site include cutting, stamping, degreasing, smelting, annealing, electroplating, buffing, and polishing. The use of TCE and petroleum products occurred at the Site. MassDEP records indicate up to five degreasing units and eleven cyclonic dust collectors previously operated at the Site. The locations of the degreasers are not known, with the exception of one unit which remains in the southeastern building (see Figure 2). Five cyclonic dust collectors also remain on Site and are shown on Figure 2.
- REC-2: The presence of abandoned chemical containers throughout the building.
- REC-3: The detection of TCE in groundwater at monitoring well MW-6, which was the basis of a Downgradient Property Status (DPS) filing made by a neighbor to the south, Goly's Garage (see Section 2.1.4).
- REC-4: The presence of a 30,000 gallon above-ground heating oil storage tank. Minor staining of the ground was present along the northern exterior wall of the tank building, near the fill hoses.. According to the Phase I report, a permit dated September 20, 1979 was identified for construction of an oil storage tank at the Site. This is likely the existing AST on the northwestern side of the building.
- REC-5: The presence of four exterior cyclones which were utilized to remove silver and other particulates.
- REC-6: The western portion of the Site was identified as a REC due to the industrial nature of the property. Historic Sanborn mapping indicates the ball fields on the western site of the Site were previously developed with approximately 50 units of temporary housing for veterans after World War II. Prior to that, a small industrial building was present near the center of the fields in 1914. The nature of the fill materials in the western end of the Site is unknown.
- REC-7: The suspected presence of asbestos-containing building materials, lead-based paint, and PCBs associated with the building and other exterior structures (such as the cyclones).

Section 3.0 identifies the Phase II activities performed to assess these RECs.

3.0 PHASE II ACTIVITIES

To evaluate whether released oil or hazardous materials may be present in Site media, OTO's Phase II assessment included the following:

- performance of 26 soil borings;
- installation of seven groundwater monitoring wells;
- collection and analysis of soil samples from each boring;
- collection and analysis of eleven groundwater samples;
- collection and analysis of two water samples from catch basins in Kenwood Street;
- collection and analysis of two water samples from the storm drain outfall area;
- collection and analysis of six soil gas samples; and
- collection and analysis of four indoor air samples.

These activities and the associated results are described in the following sections. Exploration locations are depicted on Figures 3 and 6.

3.1 SOIL BORINGS AND MONITORING WELL INSTALLATION

OTO conducted a total of 26 soil borings at the Site during two rounds of drilling. On January 11, 2012, 20 borings (LS-1 through LS-20) were performed. On February 21, 2012, six additional soil borings (LS-21 through LS-24, LS-27 and LS-30) were performed. Seven of the borings (LS-10, LS-19, and LS-20 through LS-24) were completed as groundwater monitoring wells. The water table was encountered at depths of 2.5 to 6.5 feet below ground surface during drilling. The water table was shallowest on the western side of the Site, in the ball fields. The monitoring wells were each set to span the water table. Soil boring and monitoring well installation logs are provided in Appendix C.

The rationale for soil boring and monitoring well locations is summarized below:

1. Borings LS-1 through LS-6 were placed in the ball fields, with a focus on the approximate location of an historic industrial building in the center of the field, as depicted on the 1914 Sanborn Fire Insurance Map;
2. Borings LS-7 and LS-8 were placed at the western end of the building, in the vicinity of former waste storage areas and the 30,000 gallon fuel oil AST;
3. Borings LS-9, LS-10 and LS-11 were placed on the north side of the AST to assess possible fuel oil release conditions. LS-10 was completed as a monitoring well, and was placed within an area of stressed vegetation where a surficial release of petroleum appeared to have occurred from the AST fill hose.
4. Boring LS-12 was placed further north of the AST, which was interpreted as a possible downgradient location from the AST if utility lines in Norwood Street intercept the water table.

5. Boring LS-13 was placed near the southwest corner of the manufacturing portion of the site, in a location inferred to likely be downgradient of the facility.
6. Borings LS-14 through LS-17 were placed in central to southern portions of the manufacturing area.
7. Boring LS-18 was placed near the Federal Street entrance to the facility. This location was intended to provide assessment of potential gasoline impacts that could be migrating onto the property from a known release at the filling station to the east. However, shallow drilling refusal was encountered at multiple locations, and the water table was not encountered.
8. Borings LS-19, LS-20, and LS-21 were placed near the southern property line, along Kenwood Street. These borings were completed as monitoring wells to assess the extent of a previously reported TCE condition at monitoring well MW-6, north of Goly's Garage.
9. Borings LS-22 and LS-23 were placed on the south side of Kenwood Street to assess the potential migration of impacted groundwater to the residential area.
10. Borings LS-24 and LS-27 were placed inside the fenced area on the west end of the industrial building, near loading docks and waste storage areas. LS-24 was placed within the estimated footprint of a former dumpster, to assess potential historic leakage from waste materials. LS-27 was placed in an area with a wooden canopy which appears to have been used for drum storage. These locations are also immediately downgradient/south of the 30,000 gallon fuel oil AST.
11. Boring LS-29 was manually performed using a shovel to collect soil from below a pair of cyclonic dust collectors on the south side of the building. The drill rig could not access this area due to the presence of the cyclones overhead. Soil samples were collected from 0-1 and 1-2 foot depth intervals below the cyclones to assess potential releases of metals from these units.
12. LS-30 was placed on the northeast side of the manufacturing building, in the general vicinity of an underground gasoline storage tank depicted on the 1914 Sanborn map, and adjacent to an area believed to have previously housed a degreaser.
13. One additional soil sample, identified as "Transformer" was collected manually using a shovel in the vicinity of the transformer in the courtyard. Historic Sanborn mapping indicates a transformer field was located in this area in the 1950s, at a time when oils containing PCBs may have been used. The sample was a composite of three subsamples from around the transformer pad, each collected from the zero to one foot depth interval.

The borings were performed by Seaboard Environmental Drilling of Chicopee, Massachusetts. A Geoprobe direct push drill rig was used at most locations. The Geoprobe uses direct push technology to collect continuous soil samples in plastic sleeves to the depth of exploration. Several of the monitoring well borings were advanced using hollow stem

augers so that a standard two-inch diameter well could be installed. Locations of the borings and monitoring wells are shown on Figure 3.

OTO was present to observe and document the borings, and to screen soil samples for volatile organic compounds (VOCs) using a photoionization detector (PID). Soil boring logs are provided in Appendix C, and include a description of the subsurface materials encountered, the results of soil headspace PID screening, and monitoring well construction details.

Materials encountered in the borings generally consisted of fine to medium sand interpreted as fill in the upper two to seven feet. Debris encountered in the fill included brick fragments and ash. The fill was underlain by fine to medium sand and silt, with clayey silt present at some locations. Auger refusal was encountered at locations LS-18 (5 feet) and LS-20 (10 feet). Based on the reported presence of shallow bedrock at the filling station across Federal Street to the east, the auger refusal was interpreted as bedrock.

3.2 SOIL SCREENING AND ANALYSIS

Soil samples from the borings were screened in the field for volatile organic compounds (VOCs) with a TEI 580B Photoionization Detector (PID). The PID provides a general indication of the presence of volatile organic compounds, which are commonly associated with light petroleum hydrocarbons and solvents. A positive PID reading can be an indicator of impacted soil at the exploration location. Soil headspace PID measurements made during the January 2012 drilling program were performed using a instrument equipped with an 11.7 eV (electronvolt) lamp. This is a higher energy lamp than the standard 10.6 detector. It is sensitive to certain chlorinated VOCs, such as 1,1,1-trichloroethane, which give a poor response on the standard instrument. This instrument was selected based on the reported past use of 1,1,1-trichloroethane at the Site. Results of the soil headspace screening are shown on the boring logs attached in Appendix C.

Positive PID readings were recorded for soil samples collected in the vicinity of the fuel oil AST (borings LS-7, LS-9, LS-24, and LS-27), as well as along the north side of Kenwood Street (borings LS-13, LS-17, LS-19, and LS-20). The highest PID readings recorded at the Site were at LS-9, north of the AST, where a PID reading of 159 parts per million by volume (ppmv) was measured in the headspace of a sample collected from 5 to 6 feet below grade, near the water table. This sample was selected for chemical analysis.

Based on field screening and observations, and on information about historic industrial activities, selected soil samples from the borings were submitted for laboratory analysis. The samples were submitted to Spectrum Analytical Laboratory (Spectrum) of Agawam, Massachusetts for analysis of VOCs, volatile petroleum hydrocarbons (VPH), extractable petroleum hydrocarbons (EPH), polychlorinated biphenyls (PCBs), and/or metals. Additionally, two of the samples which contained elevated metals concentrations (LS-20, 1-3 feet and LS-29, 0-1 foot) were analyzed for leachable metals levels using the toxicity characteristic leaching procedure (TCLP). The results of this analysis were used to assess

whether the soils would be classified as characteristically hazardous under RCRA if they were excavated. Laboratory reports are attached in Appendix D. Soil analytical results are summarized on Table 1 (VOCs), Table 2 (VPH/EPH), Table 3 (PCBs), Table 4 (metals in the manufacturing area) and Table 5 (metals in the ball fields), and are discussed below. The areas of concern are depicted on Figures 7 and 8.

3.2.1 VOCs in Soil

As shown in Table 1, three chlorinated VOCs were detected at concentrations exceeding the applicable RCS-1 reporting standards for soil: cis-1,2-dichloroethylene (DCE); trichloroethylene (TCE); and tetrachlorothylene (also known as perchloroethylene, or PCE).

The highest concentrations were reported at location LS-24, where the zero to four foot depth sample contained 167 mg/kg TCE. The four-foot long Geoprobe sleeve from this sample location contained only 24 inches of recovered soil, so the depth of this material could not be determined more precisely. The water table was encountered at six feet below grade at this location, therefore the soil is identified as unsaturated. The RCS-1 Reportable Concentration for TCE in soil is 0.3 mg/kg. Boring LS-24 was placed within the estimated footprint of a former dumpster. The shallow soil impacts are consistent with a surficial release of material.

Similar high TCE levels were present at boring LS-20, where the TCE concentration was 128 mg/kg in the soil sample collected from one to three feet below grade. This location is on the south side of the building, near the entry to a portion of the building where drums were stored, and where a degreaser is located.

3.2.2 Petroleum Hydrocarbons in Soil

Fifteen soil samples were tested for petroleum hydrocarbons (EPH and/or VPH). Analytical results are summarized on Table 2. Petroleum hydrocarbons were not detected in Site soil at concentrations exceeding the applicable RCS-1 Reportable Concentrations.

The 30,000 gallon AST on the northwest side of the building was identified as a REC in the Phase I report. The age and construction of the AST are unknown, although a construction permit suggests it may date to 1979. Evidence of an oil release to the ground surface had been observed near the fill hose. Based on the observed presence of petroleum in soil near the fill lines, shallow soil in that area is presumed to contain fuel oil at concentrations above reportable levels. Soil that was visually impacted was not tested. A monitoring well was placed at location LS-10 to assess the migration of oil to the water table.

Multiple soil borings were performed on the north, west, and south sides of the AST. A petroleum odor was observed at only one location, LS-8, on the west side of the AST. PID readings for samples from the boring were zero. Soil from approximately five feet below grade (at or near the water table) in LS-8 exhibited at grey black color and petroleum odor. That sample was analyzed for EPH. As shown on Table 2, EPH was not detected.

Sample LS-9, 5-6 feet collected from the north side of the AST exhibited a PID reading of 159 ppmv. That sample was analyzed for EPH and VPH. Both were detected, but at concentrations below reportable levels.

Sample LS-30, collected from the northeast side of the building near the historic location of a gasoline UST, was analyzed for VPH and EPH. EPH was not detected. Each of the three VPH fractions was detected, but at concentrations below RCS-1 reportable concentrations. The detection of VPH is consistent with traces of gasoline.

Surficial soil (from 0 to 2 foot depths) was tested for EPH at two locations on the west side of the building, in a former loading dock/storage area. At location LS-24, where the dumpster was formerly located, EPH was detected but at levels below Reportable Concentrations.

Petroleum was not detected in surface soil near the transformer in the courtyard.

Based on these results, petroleum impacts of concern at the Site appear to be limited to shallow stained soils in the vicinity of the AST fill hoses.

3.2.3 PCBs in Soil

Three shallow soil samples (zero to one or two foot depth) were analyzed for PCBs. Each of these was located in the vicinity of current and/or historic transformers. As shown on Table 3, PCBs were not detected in these samples.

3.2.4 Metals in Soil

Testing for metals was conducted primarily on shallow soils, as the presumed manner in which they would have become located in Site media would be either direct placement of fill or deposition of airborne particles. Shallow soils also have a greater potential for human contact than subsurface soils and are therefore of greater interest in evaluating site risks. Table 4 provides a summary of metals data in the manufacturing portion of the Site, and Table 5 summarizes metals results for soil in the ball fields.

The only exceedence of reportable concentrations in the ball fields was cadmium at location LS-1. That sample contained 2.38 mg/kg cadmium, slightly exceeding the 2 mg/kg RCS-1. The natural background level for cadmium is also 2 mg/kg. This condition would not pose a risk to casual users of the ball fields.

Multiple metals exceeded Reportable Concentrations in shallow (0 to 2 foot) soil samples collected from the manufacturing portion of the Site. Metals present above Reportable Concentrations in one or more soil sample were: antimony, arsenic, cadmium, chromium, copper, lead, nickel, and silver. Concentrations did not exceed the Imminent Hazard levels identified in Section 40.0321 of the MCP.

The most substantial metals exceedences were at location LS-20, on the south side of the building, at a depth of one to three feet. This soil sample also exhibited an elevated TCE concentration, as discussed in Section 3.2.1. The material encountered at this location was brown to black fill containing ash and brick. Soil at this location contained 3,760 mg/kg total lead and 15.5 mg/l of TCLP leachable lead. TCLP analysis indicates the material could be considered a characteristically hazardous waste if it was excavated. This material is currently located below asphalt pavement, and is not accessible by casual users of the Site.

Silver levels were significantly above background levels in all but one of the Site soil samples, and exceeded the Reportable Concentration in three samples. The highest silver concentrations were at location LS-29, directly below the cyclones on the south side of the building. The elevated silver concentrations extended to a depth of at least two feet in shallow soil immediately below the cyclones. Metals conditions in soil are conservatively presumed to be similar below the other cyclone locations on Site.

3.3 GROUNDWATER ASSESSMENT

Our groundwater assessment program included the collection and analysis of samples from the seven newly installed monitoring wells (LS-series) and from two wells previously installed as part of the Goly's Garage assessment (MW-6 and MW-7). OTO collected groundwater samples from monitoring wells MW-6, MW-7, LS-10, LS-19 and LS-20 on January 19, 2012, and from monitoring wells LS-21 through LS-24 and MW-6 on February 21, 2012. In each case, the wells installed by OTO were sampled approximately one week after installation. An additional sample was collected from monitoring well LS-19 on March 15, 2012 for RCRA 8 metals analysis based on the presence of elevated metals concentrations detected in Site soil.

Low-flow pumping techniques were used to purge the wells and obtain the groundwater samples. During low flow sampling, a peristaltic pump was used to remove water at a rate low enough to minimize drawdown in the well, while monitoring groundwater chemistry through the use of portable pH, specific conductance, temperature, dissolved oxygen, and oxidation-reduction potential (ORP) meters. A groundwater sample was collected when field measurements had stabilized, indicating a sample representative of the aquifer was being withdrawn. This method limits disturbance of the aquifer and is supported by MassDEP and EPA. Copies of groundwater sampling records are provided in Appendix E.

OTO collected groundwater samples from the previously existing monitoring MW-6 on two dates. This monitoring well was installed as part of the downgradient property assessment conducted for Goly's Garage, and had been reported to contain an elevated level of TCE. During our first round of groundwater monitoring, the well was found to be in poor condition. The cap was missing, and a substantial amount of silt or sand was present at the bottom of the well, likely blocking a portion of the screen. We collected a groundwater sample from the well for comparative purposes, however, the results are considered to be of limited usability due to the missing cap, the potential for rainwater intrusion from the

surrounding paved area, and the partially blocked screen. The total depth of the well measured on January 19, 2012 was 7.8 feet below grade. The boring log prepared by ECS for this monitoring well (provided in Appendix B) indicates MW-6 is screened from 5 to 15 feet below grade. Following collection of our first sample from this well, we placed an expandable cap on the well to prevent the intrusion of water and debris. Prior to collection of our second sample from this location, we aggressively purged the well with a bailer to remove stagnant water and materials settled within the screened zone.

In addition to the samples collected from monitoring wells, a water sample was collected from the sump in the basement of the north-central portion of the building. The location of the sump is shown on Figure 3. Based on our observations during this sampling program, the basement appears to regularly experience groundwater intrusion. A grab sample of water from the sump was collected on February 28, 2012. The sump water sample was analyzed for VOCs due to its location in the industrial portion of the building where solvents may have been used, and for VPH due to its location proximate to a gasoline UST depicted on historic Sanborn map.

The samples were stored on ice, and were transported to Spectrum Analytical Laboratory under chain-of-custody procedures. Each of the groundwater samples was analyzed for volatile organic compounds (VOCs) by EPA Method 8260. Based on their locations proximate to potential source areas, selected samples were also analyzed for EPH (LS-10, LS-20 and LS-24), volatile petroleum hydrocarbons (LS-10, LS-24 and the sump), metals (MW-6, MW-7, LS-20) and/or total cyanide (MW-6, MW-7 and LS-20). The samples collected for dissolved metals analysis were filtered at the laboratory, with the exception of LS-19. That sample was filtered in the field using a 500 milliliter Nalgene filter unit with a pore size of 0.45 microns.

Laboratory reports are provided in Appendix D. Analytical results are summarized on Table 6 (VOCas), Table 7 (petroleum), Table 8 (metals and cyanide), and are discussed in the following sections.

3.3.1 VOCs in Groundwater

As shown on Table 6, four VOCs were detected in Site groundwater at concentrations exceeding RCGW-2 Reportable Concentrations: DCE; TCE; PCE; and vinyl chloride. Each of these is a chlorinated VOC. These compounds also have a "parent-daughter" relationship that arises from sequential loss of chlorine atoms. When released to the environment, PCE will often naturally degrade to TCE, which will degrade to cis-1,2-dichloroethylene, then vinyl chloride.

The TCE concentration at monitoring well MW-6, north of Goly's Garage, was confirmed to exceed the Reportable Concentration. The detected concentrations were not as high as those reported by ECS in the DPS report prepared for Goly's Garage. However, as discussed above, the well condition has been compromised, and reported groundwater concentrations may be low-biased. Additionally, the testing by ECS was performed in 2007.

Some degree of natural degradation of these constituents would be expected over a five year period.

VOC concentrations in groundwater were highest at LS-19, where TCE was detected at 107 milligrams per liter (mg/l) on the southwest of the Site building. The RCGW-2 for TCE is 0.3 mg/l, and is based on the potential for this compound to migrate from groundwater into overlying buildings. Based on the groundwater contour plan developed during this study (see Section 3.4), monitoring well LS-19 is downgradient of the former dumpster location (boring LS-24) where substantial TCE concentrations were detected in soil. Location LS-24 also had significant TCE impacts in groundwater. These results indicate a separate source of VOCs on the west side of the building.

Monitoring wells LS-22 and LS-23 were placed on the south side of Kenwood Street to assess whether VOC impacts had migrated to the residential neighborhood. Chlorinated VOCs were not detected in groundwater samples from the south side of Kenwood Street. Traces of three non-chlorinated VOCs were detected in those samples, but at levels below Reportable Concentrations. Based on their absence in groundwater on the north side of Kenwood Street, those VOCs are not considered Site-related.

3.3.2 Petroleum in Groundwater

Our assessment did not identify significant petroleum impacts in Site groundwater, as shown on Table 7.

EPH was not detected in groundwater from monitoring well LS-10, which was set within the area of surficial staining near the AST fill hoses, or in LS-24 which is located downgradient of the AST. Based on this information, the surficial staining has affected a localized area of shallow soil, but has not migrated into groundwater.

The only reported detection of petroleum constituents in groundwater was VPH hydrocarbon fractions at LS-24, the dumpster location. The reported C5-C8 aliphatic concentration in LS-24 groundwater exceeds the RCGW-2 reporting standard. However, the laboratory report indicates the C5-C8 aliphatic detection in that sample was the result of one peak, which is not typical of petroleum constituents. Target VPH analytes were not detected. The reported C5-C8 aliphatic hydrocarbon result is likely an analytical artifact resulting from the presence of a an individual compound. Chlorinated VOCs are known to interfere with VPH analysis, which is a gas chromatography method not capable of definitive peak identification. Based on the laboratory note regarding the single peak, and on the presence of TCE and PCE in groundwater sample LS-24, we conclude the VPH is a false positive, and does not constitute a reportable condition.

3.3.3 Metals and Cyanide in Groundwater

Samples selected for metals analysis included LS-24 (within the former dumpster footprint) and wells installed along the downgradient side of the property (LS-19, LS-20, MW-6 and MW-7). Cyanide analysis was performed on samples collected from locations near the southeastern Site building, where Mr. Lunt informed us cyanide had been used in the manufacturing process. Cyanide was not detected in Site groundwater. As shown on Table 8, several dissolved metals were detected in the groundwater samples, but at levels below Reportable Concentrations. These results indicate that the metals impacts detected in Site soil are generally not mobile.

3.4 GROUNDWATER FLOW DIRECTION

The groundwater flow direction was assessed using depth to water table measurements in groundwater monitoring wells combined with elevation survey data. The relative elevations of the Site monitoring wells were surveyed using rod and transit techniques. Depth to water table measurements were made on January 19, 2012 (five wells, prior to the installation of wells LS-21 through LS-24) and on March 15, 2012 (nine wells). The depth to groundwater during our assessment ranged from approximately two to five feet below grade. These measurements were used to determine relative water table elevations, as shown on Table 9.

The relative water table elevations from January 19, 2012 are also depicted on Figure 5, and were used to estimate the groundwater flow direction. As shown, the groundwater flow direction was estimated to be to the southwest. These results are consistent with the flow direction estimated by ECS for the Goly's Garage site south of Kenwood Street. A copy of the ECS groundwater contour plan is provided in Appendix B.

As discussed in Section 3.5 below, a storm drain line on the north side of Kenwood Street appears to intercept the water table. The infiltration of groundwater into this line likely creates an artificial depression of the water table and influences local groundwater flow direction. This is supported by the detection of TCE in the storm water drain line, as discussed below.

3.5 CATCH BASIN SAMPLING

Numerous utility lines are present along Kenwood Street, as shown on the mapping provided in Appendix F. Based on the shallow water table (two to five feet below grade) and on the observed distribution of groundwater impacts (elevated VOC concentrations on the north side of Kenwood Street; nondetectable levels on the south side of the street), the utility lines were suspected of intercepting groundwater. We therefore conducted an assessment of water in the storm drain located on the north side of Kenwood Street, proximate to the Lunt facility.

On March 15, 2012 we collected water samples from two storm drains along the north side of Kenwood Street. The catch basin locations are shown on Figure 3. Catch basin CB-1 is located directly south of the Lunt facility. CB-2 is located south of the playing fields, near the eastern baseball diamond, and is downstream of CB-1. Location CB-2 is estimated to be downgradient of the former dumpster location on the west side of the Site building.

These catch basins and two others in the vicinity were screened with a PID to assess total VOC concentrations in the catch basin air space. PID readings at each location were zero. Water samples were collected from the catch basins by lowering a length of rigid polyethylene tubing through an opening in the grate, and withdrawing the sample using a peristaltic pump at the ground surface The pump was set to a low flow rate to minimize agitation of the water, and to maintain a continuous stream of water without air bubbles in the tubing. The samples were collected directly into pre-preserved 40-milliliter septum vials and stored on ice.

The samples were delivered to Spectrum Analytical Laboratory for analysis of VOCs. The laboratory report is attached in Appendix D. Analytical results are summarized on Table 10. Three chlorinated VOCs were detected in the water samples: DCE; TCE; and PCE. The higher concentrations were at downstream location CB-2, near the playing fields, where the TCE concentration in the catch basin water was 0.58 mg/l.

As shown on Table 10, the TCE concentration measured in catch basin water near the Lunt facility exceeded the MassDEP surface water benchmark for TCE. The storm sewer discharge point was therefore located and sampled. A plan showing the discharge point for these catch basins was obtained from the Greenfield DPW, and is provided in Appendix F. The plan indicates the line drains to the west, eventually discharging to the Green River. The outfall is located approximately 1.3 miles southwest of the Site, southwest of the intersection of Colrain and Solon Streets.

A copy of the MassDEP priority resource mapping for the outfall area is provided in Appendix F. There are no Zone A, Zone II, or IWPA drinking water supplies mapped in the outfall area. The primary receptors of concern would therefore be aquatic organisms in the river.

On April 11, 2012, we collected two water samples from the vicinity of the outfall. Sample OF-1 was collected directly from the outfall stream, prior to mixing with surface water. Sample OF-2 was collected from the first surface water body which the outfall discharges to, a small ponded area which drains to the Green River. Photographs of the sample locations are included in Appendix F. The samples were analyzed for VOCs; results are summarized on Table 10. VOCs were not detected in the outfall samples.

3.6 SUBSLAB SOIL GAS ASSESSMENT

Based on the presence of elevated concentrations of volatile constituents in Site soil and groundwater, OTO performed a soil gas survey to assess the potential for vapors below the building slab to migrate into indoor air. The soil gas assessment was performed on January 26, January 27, and March 15, 2012. Soil gas sampling logs are provided in Appendix G, and document the soil gas field screening, helium shroud leak checking results, and weather conditions at the time of our survey. The following sections provide additional detail on the installation of the soil gas sample points, collection of the samples, and analytical results.

3.6.1 Soil Gas Point Installation

Our assessment included the installation of 13 permanent soil gas points, shown on Figure 6 as SG-1 through SG-13. As shown, five of the points (SG-1 through SG-5) were placed in the southeastern Site building, in the vicinity of a degreaser remaining in that building.

At each location, Witch Enterprises, Inc. of Agawam, Massachusetts cored a ½-inch diameter hole through the concrete slab to the underlying soil. The floor slab was approximately 6 inches thick at these locations with the exception of SG-12, which had a thickness of 12 inches. The soil gas point was installed by drilling a ½ inch diameter hole through the full thickness of the concrete floor slab. A two-inch diameter concrete core approximately two inches thick and centered over the ½ inch diameter hole was then advanced into the top of the slab. The upper core was then removed by chipping it free from the slab, to create a recess in the slab to receive the soil gas probe assembly.

The soil gas probe assembly was constructed using a ¼ inch diameter copper tube slightly longer than the thickness of the concrete slab, a tight fitting rubber washer and stopper, a rubber plug and a removable flush-mounted cap. A two-inch section of one-half inch diameter PVC casing was placed around the copper sampling point. The PVC casing was capped flush with the basement floor surface. To seal the air exchange between the top and bottom of the floor slab the sampling points were secured in place using a fast-setting sulfoaluminate cement that expands upon curing to provide for an air tight seal with the concrete slab and restrict ambient air intrusion. Images showing construction materials and soil gas point assembly are provided in Appendix G.

3.6.2 Soil Gas Sample Collection

Prior to sampling, each soil gas point was purged with a PID. The PID used in January was equipped with a high energy 11.8 eV detector. In March, a standard 10.6 eV detector was used. The PID was attached to each soil gas point and was allowed to run for five minutes to purge ambient air from the assembly. Results of VOC screening are included on the Table 11. As shown, soil gas probes located in the vicinity of the degreaser (SG-1 through SG-5)

exhibited PID readings ranging from 0.4 to 21.6 part per million by volume (ppmv). Total VOC readings were 1 ppmv or lower at the remaining soil gas probe locations.

Based on screening results and the locations of soil gas probes relative to features of interest (such as the former degreaser in the southeastern building), six soil gas samples (SG-4, SG-6, SG-7, SG-9, SG-10 and SG-11) were selected for laboratory analysis. The soil gas samples were collected over a 30 minute sampling interval into 3 liter stainless steel vacuum canisters at a flow rate of approximately 0.2 liters per minute. During the January event, the soil gas samples were collected with the soil gas sampling point, the sample collection canister, the flow regulator and the sample tubing located inside a helium-filled shroud. To sample, the flow controller was opened, the sampling shroud was placed over the sampling equipment and helium was introduced into the shroud at a concentration of approximately 40 to 49%. The soil gas being withdrawn was then monitored continuously with a MGD-2002 multi-gas leak detector calibrated to helium, which is capable of detecting helium at a concentration as low as 25 parts per million by volume (ppmv). The purpose of the shroud was to monitor for leakage and/or short circuiting of air above the concrete slab into the soil gas sampling point, and if leakage is present, to assess what impact any potential leakage may have on soil gas concentrations. Helium concentrations in the soil gas sample were recorded on a sampling log at 10-minute intervals. Shroud helium concentrations were also monitored at approximately ten minute intervals and recorded on the sampling logs, which are attached in Appendix G.

Since helium was detected in the soil gas influent to the sampling canister, a leakage rate was estimated by dividing the helium influent concentration by the helium shroud concentration and multiplying the quotient by 100 to provide a result in percent. Monitoring of the soil gas sampling indicates that a leakage rate of less than 1% was observed in the sample. Leakage rates of less than 1% are not considered significant enough to measurably affect the soil gas analytical results. For these soil gas samples, observed leakage rates were less than 0.6%. Based on the nominal intrusion rates, shrouding was not used during the March 2012 sampling event.

3.6.3 Soil Gas Analysis and Results

The soil gas samples were submitted to Spectrum, where they were analyzed for volatile organic compounds by Method TO-15. The laboratory report is provided in Appendix D. Analytical results are summarized on Table 12.

The soil gas results were evaluated using current vapor intrusion guidance (MassDEP, 2011). That document provides soil gas screening values for residential and commercial/industrial settings. Soil gas concentrations below the published values can generally be interpreted as unlikely to result in indoor air concentrations at levels of concern for the specified receptors. As shown on Table 12, TCE concentrations in soil gas exceeded the MassDEP commercial/industrial values at locations SG-4, SG-9 and SG-10. The highest levels were at SG-4 and SG-9, where concentrations were 30 to 100 times the threshold values. SG-4 is

adjacent to a degreaser. Soil gas concentrations from soil gas probe locations SG-6 and SG-7 were below screening values.

These results indicate vapor intrusion is a significant concern throughout much of the site building, but particularly in the vicinity of the degreasing unit.

3.7 INDOOR AIR ASSESSMENT

On January 26, 2012, OTO collected indoor air samples from four locations (IA-1 through IA-4) within the Site building, as shown on Figure 6. Three of the locations were in basement areas. The water table at the Site is high, and some of the basement areas periodically flood. Due to the high water table (therefore absence of unsaturated soil), soil gas points in this area were not considered viable. Current vapor intrusion guidance (MassDEP 2011) indicates basement space should be considered occupied space if the ceiling height is at least seven feet. In these basements, the presence of offices indicates portions of the basement have been used for offices in the past.

Indoor air sample locations were selected as follows:

- IA-1 was placed within the office area on the east side of the building. There is no basement below this space.
- IA-2 was placed in the northern basement, which has a sump that may serve as a migration pathway. The floor in this space periodically floods.
- IA-3 was placed in the southwest basement, near the metal spiral staircase to the first floor.
- IA-4 was place in the north-central basement to assess conditions in the middle of the building, in the general vicinity of a former degreaser. The exact former location of the degreaser is unknown.

At each location, a six-liter Summa air sampling canister was placed with the intake in the typical breathing zone (three to five feet above floor grade, assuming workers may be either sitting or standing). The canisters were equipped with regulators set for a two-hour fill time. The two-hour fill time is shorter than would typically be conducted in an active facility. However, it was deemed appropriate in this facility, as the building has been vacant for months, and there are no daily activities within the building which might affect indoor air conditions.

The air samples were analyzed by Method TO-15 at Spectrum Analytical Laboratory. A copy of the laboratory report is provided in Appendix D. Analytical results are summarized on Table 13. The results were compared to residential and commercial/industrial indoor air threshold values published in current guidance (MassDEP, 2011). As shown on Table 13, concentrations of chlorinated VOCs above residential and commercial/industrial threshold values were detected at IA-2, IA-3 and IA-4. The constituents of concern at these locations were DCE, TCE, and PCE. In the office on the east side of the building, the indoor air

sample (IA-1) contained PCE, but at a concentration below the commercial/industrial threshold value.

Additionally, indoor air concentrations are presumed to exceed threshold values in the vicinity of elevated soil gas results, SG-4 (near the degreaser) and SG-9.

The soil gas and indoor air results indicate indoor air conditions within manufacturing portions of the Site building have been impacted by chlorinated VOCs at levels of potential concern with respect to future Site use.

4.0 CONCEPTUAL SITE MODEL

This section provides our Conceptual Site Model and summarizes the release conditions identified. Suggested remedial response actions and preliminary cost estimates for these conditions are provided in Section 5.0.

A Conceptual Site Model is a framework of understanding that is used to assist in the evaluation and prediction of contamination migration through the environment to where potential contact with receptors may occur. The Site has been used for industrial purposes for approximately 100 years. Based on the current zoning of the property for industrial use, future occupants of the Site are likely to be workers, not residents.

Multiple conditions which exceed MCP reportable levels were identified at the Site. These include:

- Chlorinated VOCs (primarily TCE) in soil and groundwater;
- Petroleum in shallow soil near the AST fill lines; and
- Metals in shallow soil, primarily near the cyclonic dust collectors.

From both a remedial cost and a potential human health perspective, the most significant of these is the CVOCs.

4.1 CVOCS IN SOIL AND GROUNDWATER

Significant concentrations of CVOCs were detected in Site soil and groundwater, particularly along the southern property boundary and in the vicinity of a former dumpster at the west end of the building. The CVOC present at the highest concentrations is trichloroethylene (TCE). CVOCs present at lower concentrations in groundwater included PCE, DCE, and vinyl chloride.

There are likely multiple sources of CVOCs at the Site, including the dumpster footprint at the west end of the building, the degreaser in the southeastern building, and possibly other former degreaser or solvent storage locations within the manufacturing area. The presence of CVOCs in unsaturated soils (above the water table) at locations LS-20 and LS-24 suggests the CVOCs were released to the ground surface in the vicinity of the dumpster and the

degreaser. The elevated TCE concentrations in soil gas at location SG-4 supports the theory that solvents were released to the ground surface in the immediate vicinity of the degreaser.

CVOCs are volatile, and can migrate from soil or groundwater into soil gas, and eventually into ambient air or indoor air in overlying buildings. The primary potential exposure route to CVOCs identified at this Site is inhalation of CVOC vapors that have migrated into buildings. Multiple lines of evidence indicate that vapor intrusion into the Site building is a concern. Chlorinated VOC concentrations in groundwater exceed MCP GW-2 standards, which were developed based on a vapor intrusion model. Soil gas concentrations exceed commercial/industrial screening values at locations SG-4, SG-9 and SG-10. Measured indoor air results exceed published indoor air threshold values for commercial/industrial receptors. In the office space on the east side of the Site building soil gas and indoor air concentrations exceed residential standards, but are within acceptable limits for commercial/industrial use.

CVOCs are also somewhat soluble water, therefore they can migrate from the original point of release in water. At this Site, CVOCs have come to be present in groundwater across the width of the industrial portion of the property, along the southern property line. Groundwater analytical results indicate the VOC impacts have not migrated across Kenwood Street to the south. VOCs were not detected in groundwater at locations LS-22 and LS-23, likely due to interception of the overburden groundwater by a storm drain beneath Kenwood Street. These wells were placed to be downgradient of highest measured impacts in groundwater on the north side of Kenwood Street. CVOC migration into residences on the south side of Kenwood Street is therefore not a concern.

Chlorinated VOCs were reported in groundwater at Goly's Garage (ECS, 2010). We note that the CVOC detected in the highest concentration in groundwater at Goly's was PCE, at a concentration of 4.9 ug/l. By far the primary constituent of concern at the Lunt property is TCE. Comparing the pattern of constituents present in groundwater at Lunt and Goly's does not indicate a consistent source. Goly's is listed as a small quantity generator of chlorinated VOC waste. The VOCs in groundwater at that facility may be associated with garage operations, and not with the impacts measured at Lunt. Regardless of the source, the CVOC concentrations detected at Goly's were well below GW-2 standards, indicating vapor migration into their buildings does not appear to be a pathway of concern.

Groundwater at this Site is not a current or potential drinking water supply, therefore ingestion of the impacted groundwater is not an exposure route of concern.

The impacted groundwater plume appears to be intercepted by a storm drain on the north side of Kenwood Street. There is the potential for Site-related CVOCs to be discharged to a surface water body (the Green River), at the storm drain outfall. The linear distance from the Site to the discharge point is approximately 1.3 miles. The storm drain lines make multiple turns, rather than flowing directly to the outfall, therefore the water flows through over 1.5 miles of pipe prior to discharge. We did not detect CVOCs in water at the outfall. However, our assessment represents a snapshot in time. Conditions at the outfall may vary

depending on the amount of rainfall and on the water table elevation. The TCE concentration measured in catch basin CB-2 exceeds the MassDEP benchmark used for protection of aquatic organisms in surface water. However, in our opinion, resulting concentrations in the Green River are unlikely to exceed the benchmark, due to dilution and volatile losses along the length of the drain line.

There are other possible migration pathways associated with the drain line. These may include loss of impacted groundwater in locations where the water table is lower than the pipe, and migration of CVOCs into homes via sump drain lines that are connected to municipal system. These pathways may warrant further assessment.

4.2 PETROLEUM IN SOIL NEAR AST

The only reported petroleum result above applicable Reportable Concentrations in Site soil or groundwater is believed to be a false positive. That result, VPH C5-C8 aliphatic hydrocarbons in groundwater sample LS-24, was due to a single peak, which is likely TCE. Petroleum hydrocarbons occur in multi-peak patterns, not as individual peaks in chromatographic analysis. TCE is known to interfere with VPH analysis when present, and was detected in groundwater sample LS-24. This C5-C8 aliphatic result is therefore not considered reportable, and does not warrant further VPH testing.

Vegetative stress and soil staining on the north side of the 30,000 gallon AST indicate oil has been released to the ground surface in that area. The release appears to be associated with the fill hoses, which are located near the staining. The oil-stained area is presumed to contain oil above Reportable Concentrations. However, if less than two cubic yards of soil are impacted, the notification requirements of the MCP are not triggered. A soil boring (LS-10) was performed in the stained area, and did not encounter material with an oily appearance or positive PID headspace screening results. Soil samples with elevated PID screening values (such as LS-9, 5-6') did not contain reportable concentrations of petroleum. The available data do not indicate a reportable release condition associated with petroleum at the Site. However, we assume a small volume of oil-impacted soil may warrant removal from this area.

4.3 METALS IN SOIL NEAR CYCLONES

Soil samples were collected from two depths in hand boring LS-29, beneath the cyclones on the south side of the building. As shown on Table 4, metals concentrations in soil beneath the cyclones exceeded Reportable Concentrations for lead, copper, nickel, and silver. Concentrations were higher in the surficial sample (0-1 foot), and lower with depth (1-2 foot) with the exception of lead.

The cadmium result in one ball field sample (LS-1) slightly exceeded the reporting standard. While this condition is reportable, it is not likely to be significant from a human health or remedial cost perspective, relative to other conditions on Site.

During manufacturing operations, the cyclones were used to collect dust from buffing and polishing operations. A 55-gallon drum would be placed on the ground surface beneath each cyclone to accumulate the dust. The metals in surface soil in the area are likely to be the result of dust leakage or overflow from the barrels, which would have resulted in surficial deposition of manufacturing dust. The dust may also have become airborne and been deposited on the ground surface in the surrounding manufacturing area, such as at sample locations LS-14 and LS-15, which also exhibited elevated metals levels.

The available data do not identify the full lateral and vertical extent of the metals impacts in soil. Based on the available data, and on the historic presence of eleven cyclonic dust collectors at the Site, metals impacts are likely to extend across most of the manufacturing portion of the property in surface soil. In the immediate vicinity of the cyclones, impacts may extend to depths of three feet for more.

4.4 METALS IN FILL SOUTH OF BUILDING

Boring LS-20 was performed on the south side of the building, beneath pavement. Approximately three feet of fill materials, including ash and brick, were present at this location. As shown on Table 4, concentrations of lead, arsenic, and antimony were elevated in the fill materials. Coal ash is known to be associated with elevated metals levels, and likely contributes to conditions at this location. However, the silver concentration at this location (33 mg/kg) is also elevated above background, at levels higher than would typically be expected from coal ash. MassDEP has published values for natural background (0.6 mg/kg) and ash-impacted fill (5 mg/kg). The elevated silver result suggests the conditions at location LS-20 may be associated with historic silversmithing activities. Prior manufacturing operations at the property are known to have included the use of lead pots for melting metals.

Based on the elevated lead level, to evaluate potential costs associated with disposal of this material, the soil sample from LS-20 was also analyzed for TCLP leachable lead. The leachable lead concentration (15.5 mg/l) exceeded the RCRA regulatory limit (5 mg/l). If excavated, this material would therefore be classified as a characteristically hazardous waste.

4.5 WASTE MATERIALS REMAINING IN BUILDING

Containerized waste materials remain at multiple locations inside the Site building. While this condition is not reportable to MassDEP, removal and proper disposal of these materials will be required prior to redevelopment. Materials remaining in the building include paints, lacquers, acids, machine lubricants, buffing compounds, and unlabelled containers. These range in size from spray cans to 55-gallon drums. Wastes are primarily accumulated in certain areas near loading docks, but individual containers are also present throughout the building. We recommend the completion of a chemical container inventory to develop estimates of waste volumes and types remaining in the building. An inventory was not included in the Request for Proposals for this project, and was not part of our scope of

work. Accurate cost estimates to dispose of these waste materials cannot be determined until such an inventory is complete.

5.0 PRELIMINARY REMEDIAL COST ESTIMATES

As stated in our proposal, we have evaluated potential remedial alternatives to the extent feasible with the data now available.

As documented in the Section 4, the Site has been impacted above reportable concentrations by metals and by chlorinated volatile organic compounds (primarily trichloroethylene or TCE). For metals, the contamination is likely associated with former cyclone structures that drew metal contaminated dusts from former cutlery manufacturing in the building. Metals are not volatile and are typically of low mobility. As such, they can typically be addressed through cover or capping technologies at relatively low cost. On the other hand, TCE impacts at the Site are of substantially higher concern with respect to potential remediation costs due to:

1) TCE mobility in groundwater;
2) TCE volatility and vapor migration pathways;
3) TCE is a toxic compound and a suspected human carcinogen;
4) TCE has been detected over most of the developed portion of the Site in soil, groundwater, soil gas, indoor air, and the storm drain line beneath the adjacent street; and
5) The pattern of TCE detections indicates multiple source of the TCE which will have to be identified, further assessed, and remediated as needed.

Table 14 provides our preliminary estimate of potential remediation costs, primarily to address the TCE issue. The costs are based on the assumptions provided below.

Further Site Investigations

MassDEP regulations (310 CMR 40.0000) requires a full delineation of the source, nature and extent of oil or hazardous material (OHM) releases. Given the identification of multiple OHM sources, extensive further characterization of soil, groundwater, soil gas and indoor air quality will be required. Such work should be conducted in a phased manner and the final estimates will be determined as each phase is completed. However, based on our experience at similar site, we believe the ultimate cost of such work, including required MassDEP submittal will likely exceed $100,000. For our cost table, we recommend an initial budget of $200,000.

Future Use

The widespread detections of TCE in indoor air at elevated concentrations relative to MassDEP commercial standards indicates that the Site buildings are not likely suitable for residential re-development or use as a school or day care center. For purposes of potential remediation costs, we have therefore assumed the site will remain in commercial or industrial

use. We have also assumed no use of basements for offices or other commercial use, other than for occasional access by maintenance personnel. We also assume that as additional soil gas and indoor air testing is conducted, the owner will be open to demolishing certain buildings or portions of building that may be found to overlie heavily impacted areas.

Remediation Goals and AULs

Given the high TCE concentrations in groundwater, it may not be economically feasible to achieve a Permanent Solution (Class A) Response Action Outcome. We assume that the owner will be open to explore Temporary Solution (Class C) alternatives, with MassDEP input, that control current exposure pathways but do not eliminate all foreseeable future exposure pathways. We also assume that the owner will agree to AULs (Activity and Use Limitations) as needed to limit remediation costs to the extent feasible.

TCE Soil Excavation and Disposal

Based on soil and groundwater data, we expect some highly concentrated areas of TCE contamination will need to be excavated. Because the shallow depth to bedrock will limit excavation depth, we expect the volume to be less than 200 tons.

TCE Groundwater Plume Interception

A several hundred foot wide TCE plume was identified on the north side of Kenwood Street and is intercepted by a storm drain line. While initial testing indicates no discharge of TCE at he drain outfall over a mile away, it is not clear if this is due to off-gassing or infiltration. Regardless, we do not think that MassDEP will be comfortable with on-going discharge of this nature. We have therefore assumed groundwater interception and treatment will likely be required and have include a cost for installation of such a system. The system will require multiple well points, manifolded to an air stripping tower. We assume air emission controls will be required during start up and the first few months of operation but can then be eliminated.

TCE Vapor Intrusion

While it is hoped that further testing, removal of source material and AULs will limit vapor migration remediation costs, the multiple TCE sources and initial vapor reading indicate multiple sub-slab vapor depressurization systems may be required. Based on our experience, our Table 1 costs assume four separate systems will need to be installed and operated to cover approximately 40,000 square feet of building footprint.

Metals Capping

We assume that the shallow metals contaminated soils in the area of the former cyclones can be left in place and capped with clean fill or pavement, and safely maintained long term with an AUL.

Long Tem Operation and Maintenance (O&M)

The groundwater and vapor intrusion interception approaches outlined above will need to operate indefinitely. Costs for required monitoring, reporting, electricity and routine maintenance are likely on the order of $30,000/year. Assuming a 20 year time frame, and a 6 percent interest rate, the present worth value of the O&M program is estimated at $200,000.

Contingency

Given the extensive further testing which will be required to fully assess the source and extent of the releases, we recommend at least a 20 percent contingency be applied.

6.0 SUMMARY AND CONCLUSIONS

A Phase II Environmental Site Assessment was performed at the former Lunt Silversmiths site at 298 Federal Street in Greenfield, Massachusetts. The assessment was conducted in accordance with the scope of work in our December 6, 2011 proposal.

Our study included the assessment of soil, groundwater, soil gas, and indoor air conditions at the Site. In addition, water samples were collected from two storm water catch basins adjacent to the Site. A significant release of trichloroethylene (TCE) to Site soil and groundwater was identified. There appear to be at least two sources of TCE at the Site: one near a former degreasing unit on the south side of the building, and one outside the western end of the building.

Several of the conditions identified at the Site are reportable to MassDEP within 120 days of owner knowledge. If you acquired the property, you would have an obligation to notify MassDEP of these conditions within 120 days, if they had not previously been reported. The TCE has migrated into the municipal storm drain system. It the TCE discharges to a surface water body, this could constitute a Condition of Substantial Release Migration (SRM) under 310 CMR 40.0313(5) of the Massachusetts Contingency Plan (MCP), which would be reportable to the MassDEP within 72 hours of owner knowledge. Substantial additional assessment will be required to delineate Site impacts as required by the MCP.

Metals in Site soil were also identified as conditions requiring response actions under the MCP. On-site management with capping and implementation of an AUL are the most cost-effective means of addressing this condition.

Remedial alternatives to address the TCE impacts include excavation of source area soils, interception and treatment of the impacted groundwater, and sub-slab ventilation systems to limit indoor air impacts. Preliminary remedial cost estimates to achieve a Response Action Outcome (RAO) under the MCP are on the order of $1,000,000. This cost estimate does not include removal and disposal of waste materials remaining inside the building

7.0 LIMITATIONS

Our Site Assessment was performed in accordance with generally accepted practices of other consultants undertaking similar studies at the same time and in the same geographic area. Our findings and conclusions must not be considered as scientific certainties, but rather as our professional opinion concerning the potential significance of the limited data obtained during the course of our study. We do not and cannot represent that the site contains no hazardous material or oil, or that the site is free from latent conditions not observed in our assessment. Our report is subject to the additional Limitations contained in Appendix A.

This assessment and report was prepared on behalf of and for the exclusive use of the Town of Greenfield solely for the purpose of rendering an opinion as to the presence of oil or hazardous materials in site soil and groundwater subject to requirements of M.G.L. Chapter 21E. This report shall not, in whole or in part, be disseminated or conveyed to any other party, or used or relied upon by any other party without the prior written consent of O'Reilly, Talbot & Okun Associates, Inc.

8.0 REFERENCES

Environmental Compliance Services, Inc. (ECS). 2010. *Phase IV Completion Report, Downgradient Property Status, Class C-1 Response Action Outcome Statement, and Method 3 Risk Characterization, 286 Federal Street, Greenfield MA, RTN 1-01047.* February 8, 2010.

Massachusetts Department of Environmental Protection (MassDEP). 2011. *Interim Final Vapor Intrusion Guidance, WSC#-11-435.* December 2011.

Weston & Sampson Engineers, Inc. (W&S). 2011. *Phase I Environmental Site Assessment Report, Town of Greenfield, MA, Former Lunt Silversmiths Property, 298 Federal Street, Greenfield MA.* October 19, 2011.

TABLES

Table 1
Soil Analytical Results
Volatile Organic Compounds (VOCs)
Concentrations in mg/kg
298 Federal Street
Greenfield, MA

Sample No.:	LS-14	LS-17	LS-19	LS-20	LS-24		LS-27	LS-30	Reportable Conc. RCS-1	Method 1 Standards S-1 / GW-2	Method 1 Standards S-1 / GW-3
Depth (feet):	6-8	6-8	7-9	1-3	0-4	6-8	0-2	6-8			
Date Collected:	1/11/12	1/11/12	1/12/12	1/12/12	2/21/12	2/21/12	2/21/12	2/21/12			
PID Reading (ppmv):	53	24	55	1.3	24	55	11	4.6	NS	NS	NS
Acetone	< 0.069	0.092	< 0.086	< 24.5	< 30	< 0.92	< 0.93	< 0.86	6	50	400
cis-1,2-Dichloroethylene	< 0.007	**0.301**	**8.81**	**15.3**	< 3	< 0.092	< 0.093	< 0.086	0.3	0.4	100
trans-1,2-Dichloroethylene	< 0.007	< 0.009	0.052	< 2.45	< 3	< 0.092	< 0.093	< 0.086	1	1	500
Tetrachloroethylene	0.278	0.203	**3.57**	< 2.45	**29.4**	**2.02**	< 0.093	< 0.086	1	10	30
Trichloroethylene	**2.18**	**4.36**	**43.1**	**128**	**167**	**7.74**	< 0.093	< 0.086	0.3	2	90
Vinyl Chloride	< 0.007	0.038	< 0.009	< 2.45	< 3	< 0.092	< 0.093	< 0.086	0.6	0.6	0.6

NOTES:
1. Concentrations in milligrams per kilogram (mg/kg, or parts per million) on a dry weight basis.
2. "<" indicates not detected; value is sample-specific quantitation limit.
3. "RCS" = Reportable concentration from 310 CMR 40.1600.
4. "NS" = No standard.
5. Values shown in **bold** exceed Method 1 standards.
6. "PID"=Photoionization detector soil headspace measurement in parts per million by volume.
7. Only analytes detected in at least one sample are shown; refer to laboratory reports for full analyte listing.
8. Shading indicates result exceeds the reportable concentration.

Table 2
Soil Analytical Results
Volatile and Extractable Petroleum Hydrocarbons (VPH/EPH)
Concentrations in mg/kg
298 Federal Street
Greenfield, MA

Sample No.:	LS-6	LS-7	LS-8	LS-9	LS-11	LS-14	LS-15	LS-17	LS-19	LS-24		LS-27		LS-30	Transformer	Reportable Conc. RCS-1	Method 1 Standards S-1 / GW-2	Method 1 Standards S-1 / GW-3
Depth (feet):	4-6	2-4	4-6	5-6	4-6	6-8	4-6	6-8	7-9	0-4	6-8	0-2	6-8	6-8	0-1			
Date Collected:	1/11/12	1/11/12	1/11/12	1/11/12	1/11/12	1/11/12	1/11/12	1/11/12	1/12/12	2/21/12	2/21/12	2/21/12	2/21/12	2/21/12	3/15/12			
PID Reading (ppmv):	0	7.2	0	159	0	53	0	24	55	24	55	11	0.4	4.6	4.6	NA	NA	NA
VPH Fractions																		
C5-C8 Aliphatics	---	---	---	21.6	---	< 1.5	---	2.41	16.4	---	---	---	---	4.87	---	100	100	100
C9-C12 Aliphatics	---	---	---	153	---	< 0.5	---	< 0.59	< 0.74	---	---	---	---	19.5	---	1,000	1,000	1,000
C9-C10 Aromatics	---	---	---	54	---	< 0.5	---	< 0.59	< 0.74	---	---	---	---	5.82	---	100	100	100
VPH Target Compounds																		
Benzene	---	---	---	< 0.5	---	< 0.1	---	< 0.1	< 0.1	---	---	---	---	< 0.09	---	2	30	30
Ethylbenzene	---	---	---	< 0.5	---	< 0.1	---	< 0.1	< 0.1	---	---	---	---	< 0.09	---	40	500	500
Methyl tert-butyl ether	---	---	---	< 0.5	---	< 0.1	---	< 0.1	< 0.1	---	---	---	---	< 0.09	---	0.1	100	100
Naphthalene	---	---	---	< 0.5	---	< 0.1	---	< 0.1	< 0.1	---	---	---	---	< 0.09	---	4	40	500
Toluene	---	---	---	< 0.5	---	< 0.1	---	< 0.1	< 0.1	---	---	---	---	< 0.09	---	30	500	500
Xylenes (total)	---	---	---	< 1.5	---	< 0.3	---	< 0.3	< 0.3	---	---	---	---	< 0.29	---	300	300	500
EPH Fractions																		
C9-C18 Aliphatics	< 13	< 12	< 12	981	< 12	< 12	< 12	< 13	< 13	38	< 12	< 11	< 13	< 11	< 12	1,000	1,000	1,000
C19-C36 Aliphatics	< 13	< 12	< 12	< 13	< 12	< 12	< 12	< 13	< 13	44	< 12	< 11	< 13	< 11	< 12	3,000	3,000	3,000
C11-C22 Aromatics	< 13	< 12	< 12	104	< 12	< 12	< 12	< 13	< 13	48	< 12	< 11	< 13	< 11	< 12	1,000	1,000	1,000
EPH Target Compounds																		
Naphthalene	< 0.42	< 0.38	< 0.40	< 0.42	< 0.39	< 0.40	< 0.40	< 0.42	< 0.43	< 0.38	< 0.41	< 0.38	< 0.43	< 0.38	< 0.39	4	40	500
2-Methylnaphthalene	< 0.42	< 0.38	< 0.40	< 0.42	< 0.39	< 0.40	< 0.40	< 0.42	< 0.43	< 0.38	< 0.41	< 0.38	< 0.43	< 0.38	< 0.39	0.7	80	300
Acenaphthylene	< 0.42	< 0.38	< 0.40	< 0.42	< 0.39	< 0.40	< 0.40	< 0.42	< 0.43	< 0.38	< 0.41	< 0.38	< 0.43	< 0.38	< 0.39	1	600	10
Acenaphthene	< 0.42	< 0.38	< 0.40	< 0.42	< 0.39	< 0.40	< 0.40	< 0.42	< 0.43	< 0.38	< 0.41	< 0.38	< 0.43	< 0.38	< 0.39	4	1,000	1,000
Fluorene	< 0.42	< 0.38	< 0.40	< 0.42	< 0.39	< 0.40	< 0.40	< 0.42	< 0.43	< 0.38	< 0.41	< 0.38	< 0.43	< 0.38	< 0.39	1,000	1,000	1,000
Phenanthrene	< 0.42	< 0.38	< 0.40	< 0.42	< 0.39	< 0.40	< 0.40	< 0.42	< 0.43	< 0.38	< 0.41	< 0.38	< 0.43	< 0.38	< 0.39	10	500	500
Anthracene	< 0.42	< 0.38	< 0.40	< 0.42	< 0.39	< 0.40	< 0.40	< 0.42	< 0.43	< 0.38	< 0.41	< 0.38	< 0.43	< 0.38	< 0.39	1,000	1,000	1,000
Fluoranthene	< 0.42	< 0.38	< 0.40	< 0.42	< 0.39	< 0.40	< 0.40	< 0.42	< 0.43	0.48	< 0.41	< 0.38	< 0.43	< 0.38	< 0.39	1,000	1,000	1,000
Pyrene	< 0.42	< 0.38	< 0.40	< 0.42	< 0.39	< 0.40	< 0.40	< 0.42	< 0.43	0.38	< 0.41	< 0.38	< 0.43	< 0.38	< 0.39	1,000	1,000	1,000
Benzo(a)anthracene	< 0.42	< 0.38	< 0.40	< 0.42	< 0.39	< 0.40	< 0.40	< 0.42	< 0.43	< 0.38	< 0.41	< 0.38	< 0.43	< 0.38	< 0.39	7	7	7
Chrysene	< 0.42	< 0.38	< 0.40	< 0.42	< 0.39	< 0.40	< 0.40	< 0.42	< 0.43	0.54	< 0.41	< 0.38	< 0.43	< 0.38	< 0.39	70	70	70
Benzo(b)fluoranthene	< 0.42	< 0.38	< 0.40	< 0.42	< 0.39	< 0.40	< 0.40	< 0.42	< 0.43	0.49	< 0.41	< 0.38	< 0.43	< 0.38	< 0.39	7	7	7
Benzo(k)fluoranthene	< 0.42	< 0.38	< 0.40	< 0.42	< 0.39	< 0.40	< 0.40	< 0.42	< 0.43	< 0.38	< 0.41	< 0.38	< 0.43	< 0.38	< 0.39	70	70	70
Benzo(a)pyrene	< 0.42	< 0.38	< 0.40	< 0.42	< 0.39	< 0.40	< 0.40	< 0.42	< 0.43	< 0.38	< 0.41	< 0.38	< 0.43	< 0.38	< 0.39	2	2	2
Indeno(1,2,3-cd)pyrene	< 0.42	< 0.38	< 0.40	< 0.42	< 0.39	< 0.40	< 0.40	< 0.42	< 0.43	< 0.38	< 0.41	< 0.38	< 0.43	< 0.38	< 0.39	7	7	7
Dibenzo(a,h)anthracene	< 0.42	< 0.38	< 0.40	< 0.42	< 0.39	< 0.40	< 0.40	< 0.42	< 0.43	< 0.38	< 0.41	< 0.38	< 0.43	< 0.38	< 0.39	0.7	0.7	0.7
Benzo(g,h,i)perylene	< 0.42	< 0.38	< 0.40	< 0.42	< 0.39	< 0.40	< 0.40	< 0.42	< 0.43	0.38	< 0.41	< 0.38	< 0.43	< 0.38	< 0.39	1,000	1,000	1,000

NOTES:
1. Concentrations in mg/kg (parts per million) on a dry weight basis.
2. "<" indicates not detected; value is sample-specific quantitation limit.
3. "RCS" = Reportable concentration from 310 CMR 40.1600.
4. "PID"=Photoionization detector soil headspace measurement in parts per million by volume.
5. "---" indicates not analyzed for this parameter.

Table 3
Soil Analytical Results
Polychlorinated Biphenyls (PCBs)
Concentrations in mg/kg
298 Federal Street
Greenfield, MA

Sample No.:	LS-14	LS-15	Transformer	Reportable Conc. RCS-1
Depth (feet):	0-2	0-2	0-1	
Date Collected:	1/11/12	1/11/12	3/15/12	
PCBs (total)	< 0.022	< 0.023	< 0.024	2

NOTES:
1. Concentrations in mg/kg (parts per million) on a dry weight basis.
2. "<" indicates not detected; value is sample-specific quantitation limit.
3. "RCS" = Reportable concentration from 310 CMR 40.1600.

Table 4
Soil Analytical Results: Manufacturing Area
Inorganic Analytes
Concentrations in mg/kg
298 Federal Street
Greenfield, MA

Sample No.:	LS-14	LS-15	LS-20	LS-24	LS-27	LS-29		MassDEP Natural Soil Background	MassDEP Ash Fill Background	Reportable Conc. RCS-1	S-1 / GW-2,3 Standard
Depth (feet):	0-2	0-2	1-3	0-4	0-2	0-1	1-2				
Date Collected:	1/11/12	1/11/12	1/12/12	2/21/12	2/21/12	2/21/12	2/21/12				
Aluminum	8,220	9,410	4,700	6,180	8,120	12,900	5,290	10,000	10,000	NS	NS
Antimony	< 4.9	< 5.5	**113**	5.28	< 5.4	10.5	9.3	1	7	20	20
Arsenic	3.16	6.02	**37.5**	16.5	3.0	7.6	6.03	20	20	20	20
Barium	18.2	34.8	83.9	50.7	7.1	179	42.6	50	50	1,000	1,000
Beryllium	< 0.49	< 0.55	< 0.54	< 0.49	< 0.54	< 0.56	< 0.54	0.4	0.9	100	100
Cadmium	1.26	**6.96**	< 0.54	1.03	< 0.54	1.28	< 0.54	2	3	2	2
Calcium	323	931	2,250	1,240	767	1,200	737	NA	NA	NS	NS
Chromium (VI or total)*	13	15.9	12.5	**46.4**	11.2	22.3	8.65	30	40	30	30
Cobalt	3.97	4.63	4.86	6.24	3.2	9.9	3.55	4	4	500	NS
Copper	85	97.7	344	139	5.2	**1,770**	321	40	200	1,000	NS
Iron	14,400	16,400	25,700	33,400	14,700	24,300	9,750	20,000	20,000	NS	NS
Lead	25.8	50.7	**3,760**	272	4.9	**494**	**512**	100	600	300	300
Magnesium	1,960	2,330	2,000	2,170	2,190	4,510	1,590	5,000	5,000	NS	NS
Manganese	126	191	239	145	89	373	139	300	300	NS	NS
Mercury	0.18	0.22	0.33	1.43	< 0.03	0.26	0.11	0.3	1	20	20
Nickel	**77.8**	**53.2**	14.8	**20.6**	9.6	**29.3**	11	20	30	20	20
Potassium	422	424	842	470	375	2,090	844	NA	NA	NS	NS
Selenium	< 1.5	< 1.6	< 2.7	< 1.5	< 1.6	< 1.7	< 1.6	0.5	1	400	400
Silver	36	**101**	33.4	91.7	< 1.6	**195**	**109**	0.6	5	100	100
Sodium	25	28.5	152	53	57	72.5	48.8	NA	NA	NS	NS
Thallium	< 2.9	< 3.3	< 3.2	< 3.7	< 3.2	< 3.4	< 3.2	0.6	5	8	8
Vanadium	18	36	28	24	15	51	19	30	30	600	600
Zinc	47	83	57	73	22	1,810	166	100	300	2,500	2,500
TCLP Metals (mg/l)										**TCLP limit (mg/l)**	
TCLP-Lead	---	---	**15.5**	---	---	0.99	---			5	
TCLP-Silver	---	---	---	---	---	0.23	---			5	

NOTES:
1. Concentrations in milligrams per kilogram (mg/kg, or parts per million) on a dry weight basis.
2. "<" indicates not detected; value is sample-specific quantitation limit.
3. "RCS" = Reportable concentration from 310 CMR 40.1600.
4. Background values from MassDEP "Technical Update: Background Levels of Polycyclic Aromatic Hydrocarbons and Metals in Soil", May 23, 2002.
5. Shading indicates result exceeds the reportable concentration.

* Per the 4/06 MCP, chromium is assumed to be hexavalent unless testing is done to prove otherwise.

Table 5
Soil Analytical Results: Ball Fields
Inorganic Analytes
Concentrations in mg/kg
298 Federal Street
Greenfield, MA

Sample No.:	LS-1	LS-1	LS-5	LS-5	MassDEP	MassDEP	Reportable
Depth (feet):	0-2	2-4	0-2	2-4	Natural Soil	Ash Fill	Conc.
Date Collected:	1/11/12	1/11/12	1/11/12	1/11/12	Background	Background	RCS-1
Arsenic	2.93	< 1.6	2.77	< 1.8	20	20	20
Barium	61.5	15.2	36.4	23.8	50	50	1,000
Cadmium	**2.38**	< 0.54	0.74	0.61	2	3	2
Chromium (VI or total)*	9.37	11.2	13.1	16.7	30	40	30
Lead	23.1	4.07	45.6	6.97	100	600	300
Mercury	0.044	< 0.034	0.088	< 0.033	0.3	1	20
Selenium	< 1.6	< 1.6	< 1.5	< 1.8	0.5	1	400
Silver	3.57	< 1.6	2.2	< 1.8	0.6	5	100

NOTES:
1. Concentrations in milligrams per kilogram (mg/kg, or parts per million) on a dry weight basis.
2. "<" indicates not detected; value is sample-specific quantitation limit.
3. "RCS" = Reportable concentration from 310 CMR 40.1600.
4. Background values from MassDEP "Technical Update: Background Levels of Polycyclic Aromatic Hydrocarbons and Metals in Soil", May 23, 2002.

* Per the 4/06 MCP, chromium is assumed to be hexavalent unless testing is done to prove otherwise.

Table 6
Groundwater Analytical Results
Volatile Organic Compounds (VOCs)
Concentrations in mg/l
298 Federal Street
Greenfield, MA

Well No.:	LS-10	LS-19	LS-20	LS-21	LS-22	LS-23	LS-24	MW-6*		MW-7	Sump		GW-2	GW-3	
Sample Date:	1/19/12	1/19/12	1/19/12	2/28/12	2/28/12	2/28/12	2/28/12	1/19/12	2/28/12	1/19/12	2/28/12	RCGW-2	Standard	Standard	UCLs
Acetone	< 0.010	< 20	< 0.050	< 0.010	0.035	0.072	< 0.010	< 0.010	< 0.050	< 0.010	< 0.010	50	50	50	100
2-Butanone (MEK)	< 0.010	< 20	< 0.050	0.025	0.12	0.30	< 0.010	< 0.010	< 0.050	< 0.010	< 0.010	50	50	50	100
n-Butylbenzene	< 0.001	< 2	< 0.005	< 0.001	< 0.001	< 0.001	0.0034	< 0.001	< 0.005	< 0.001	< 0.001	NS	NS	NS	10*
sec-Butylbenzene	< 0.001	< 2	< 0.005	< 0.001	< 0.001	< 0.001	0.0056	< 0.001	< 0.005	< 0.001	< 0.001	NS	NS	NS	10*
1,1-Dichloroethane	< 0.001	< 2	< 0.005	< 0.001	< 0.001	< 0.001	0.0012	< 0.001	< 0.005	< 0.001	< 0.001	1	1	20	100
1,1-Dichloroethylene	< 0.001	< 2	< 0.005	< 0.001	< 0.001	< 0.001	0.0036	< 0.001	< 0.005	< 0.001	< 0.001	0.08	0.08	30	100
cis-1,2-Dichloroethylene	< 0.001	**6.34**	0.024	< 0.001	< 0.001	< 0.001	0.018	0.023	**0.17**	< 0.001	< 0.001	0.1	0.1	50	100
trans-1,2-Dichloroethylene	< 0.001	< 2	< 0.005	< 0.001	< 0.001	< 0.001	0.001	0.002	0.0067	< 0.001	< 0.001	0.09	0.09	50	100
Naphthalene	< 0.001	< 2	< 0.005	< 0.001	< 0.001	< 0.001	0.001	< 0.001	< 0.005	< 0.001	< 0.001	1	1	20	100
Tetrachloroethylene	< 0.001	**6.4**	< 0.005	< 0.001	< 0.001	< 0.001	**1.63**	< 0.001	0.019	< 0.001	< 0.001	0.05	0.05	30	100
Tetrahydrofuran	< 0.002	< 4	< 0.010	0.033	0.15	0.40	< 0.002	< 0.002	< 0.010	< 0.002	< 0.002	50	NS	NS	10*
1,1,1-Trichloroethane	< 0.001	< 2	< 0.005	< 0.001	< 0.001	< 0.001	0.081	< 0.001	< 0.005	< 0.001	< 0.001	4	4	20	100
Trichloroethylene	< 0.001	**107**	**0.199**	< 0.001	< 0.001	< 0.001	**17.2**	**0.088**	**0.23**	< 0.001	0.0016	0.03	0.03	5	50
1,2,4-Trimethylbenzene	< 0.001	< 2	< 0.005	< 0.001	< 0.001	< 0.001	0.0022	< 0.001	< 0.005	< 0.001	< 0.001	100	NS	NS	10*
1,3,5-Trimethylbenzene	< 0.001	< 2	< 0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.005	< 0.001	< 0.001	1	NS	NS	10*
Vinyl Chloride	< 0.001	< 2	< 0.005	< 0.001	< 0.001	< 0.001	< 0.001	0.0014	**0.047**	< 0.001	< 0.001	0.002	0.002	50	100

NOTES:
1. Concentrations in milligrams per liter (mg/l, or parts per million).
2. "<" indicates not detected; value is quantitation limit.
3. RCGW = Reportable concentration for groundwater, from 310 CMR 40.1600.
4. MCP Method 1 groundwater standards from 310 CMR 40.0974(2).
5. UCLs = Upper Concentration Limits, from 310 CMR 40.0996(7). "*" indicates a default UCL, not a chemical specific value, per 310 CMR 40.0996(8)(a).
6. Shading indicates values exceeds applicable Reportable Concentration.
6. "--" = Not analyzed for this parameter.
7. "NS" = No standard available.

* MW-6 results should be used with caution, as they may be low biased due to well conidtion (no cap; open to water intrusion; material settled around screen) at start of project.

Table 7
Groundwater Analytical Results
Volatile and Extractable Petroleum Hydrocarbons (VPH/EPH)
Concentrations in mg/l
298 Federal Street
Greenfield, MA

Well No.:	LS-10	LS-20	LS-24	Sump		GW-2	GW-3
Sample Date:	1/19/12	1/19/12	2/28/12	2/28/12	**RCGW-2**	**Standard**	**Standard**
VPH Fractions							
C5-C8 Aliphatics	< 0.075	---	**3.65***	< 0.075	3	3	50
C9-C12 Aliphatics	< 0.025	---	0.20	< 0.025	5	5	50
C9-C10 Aromatics	< 0.025	---	0.082	< 0.025	7	7	50
VPH Target Compounds							
Benzene	< 0.005	---	< 0.005	< 0.005	2	2	10
Ethylbenzene	< 0.005	---	< 0.005	< 0.005	5	20	5
Methyl tert-butyl ether	< 0.005	---	< 0.005	< 0.005	5	50	50
Naphthalene	< 0.005	---	< 0.005	< 0.005	1	1	20
Toluene	< 0.005	---	< 0.005	< 0.005	40	50	40
Xylenes (total)	< 0.015	---	< 0.015	< 0.015	5	9	5
EPH Fractions							
C9-C18 Aliphatics	< 0.11	< 0.11	< 0.12	---	5	5	50
C19-C36 Aliphatics	< 0.11	< 0.11	< 0.12	---	50	NA	50
C11-C22 Aromatics	< 0.11	< 0.11	< 0.12	---	5	50	5
EPH Target Compounds							
Naphthalene	< 0.005	< 0.005	< 0.006	---	1	1	20
2-Methylnaphthalene	< 0.005	< 0.005	< 0.006	---	2	2	20
Acenaphthylene	< 0.005	< 0.005	< 0.006	---	0.04	10	0.04
Acenaphthene	< 0.005	< 0.005	< 0.006	---	6	NA	6
Fluorene	< 0.005	< 0.005	< 0.006	---	0.04	NA	0.04
Phenanthrene	< 0.005	< 0.005	< 0.006	---	10	NA	10
Anthracene	< 0.005	< 0.005	< 0.006	---	0.03	NA	0.03
Fluoranthene	< 0.005	< 0.005	< 0.006	---	0.2	NA	0.2
Pyrene	< 0.005	< 0.005	< 0.006	---	0.02	NA	0.02
Benzo(a)anthracene	< 0.005	< 0.005	< 0.006	---	1	NA	1
Chrysene	< 0.005	< 0.005	< 0.006	---	0.07	NA	0.07
Benzo(b)fluoranthene	< 0.005	< 0.005	< 0.006	---	0.4	NA	0.4
Benzo(k)fluoranthene	< 0.005	< 0.005	< 0.006	---	0.1	NA	0.1
Benzo(a)pyrene	< 0.005	< 0.005	< 0.006	---	0.5	NA	0.5
Indeno(1,2,3-cd)pyrene	< 0.005	< 0.005	< 0.006	---	0.1	NA	0.1
Dibenzo(a,h)anthracene	< 0.005	< 0.005	< 0.006	---	0.04	NA	0.04
Benzo(g,h,i)perylene	< 0.005	< 0.005	< 0.006	---	0.02	NA	0.02

NOTES:
1. Concentrations in milligrams per liter (mg/l, or parts per million).
2. "<" indicates not detected; value is quantitation limit.
3. RCGW = Reportable concentration for groundwater, from 310 CMR 40.1600.
4. MCP Method 1 groundwater standards from 310 CMR 40.0974(2).
5. "--" = Not analyzed for this parameter.
6. Shading indicates values exceeds applicable Reportable Concentration.
7. "NA" = Not applicable.

* Likely false positive due to chlorinated VOCs; lab noted single peak in quantitation range.

Table 8
Groundwater Analytical Results
Inorganic Analytes
Concentrations in mg/l
298 Federal Street
Greenfield, MA

Well No.:	LS-19	LS-20	LS-24	MW-6		MW-7		GW-2	GW-3
Sample Date:	3/15/12	1/19/12	2/28/12	1/19/12	2/28/12	1/19/12	RCGW-2	Standard	Standard
Metals									
Antimony	---	---	< 0.006	---	0.026	---	8	NA	8
Arsenic	0.025	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	0.9	NA	0.9
Barium	0.088	0.080	0.031	0.056	0.020	0.048	50	NA	50
Beryllium	---	---	< 0.002	---	< 0.002	---	0.2	NA	0.2
Cadmium	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	0.004	NA	0.004
Chromium (VI or total)*	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.3	NA	0.3
Copper	---	---	< 0.005	---	0.010	---	100	NA	NS
Lead	< 0.0075	< 0.0075	< 0.0075	< 0.0075	0.0075	< 0.0075	0.01	NA	0.01
Mercury	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	0.02	NA	0.02
Nickel	---	---	< 0.005	---	< 0.005	---	0.2	NA	0.2
Selenium	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	0.1	NA	0.1
Silver	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.007	NA	0.007
Thallium	---	---	< 0.005	---	< 0.005	---	3	NA	3
Zinc	---	---	0.0061	---	0.040	---	0.9	NA	0.9
Cyanide (total)	---	< 0.005	---	< 0.005	0.017	< 0.005	0.03	NA	0.03

NOTES:
1. Concentrations in milligrams per liter (mg/l, or parts per million).
2. "<" indicates not detected; value is quantitation limit.
3. RCGW = Reportable Concentration for groundwater, from 310 CMR 40.1600.

* Per the 4/06 MCP, chromium is assumed to be hexavalent unless testing is done to prove otherwise.

Table 9
Monitoring Well Survey and Groundwater Elevation Data
298 Federal Street
Greenfield, MA

		January 19, 2012		March 15, 2012	
Well No.	Reference Elevation (feet)	Depth to water (feet)	Water Table Elevation (feet)	Depth to water (feet)	Water Table Elevation (feet)
LS-10	100.00	5.06	94.9	4.76	95.2
LS-19	93.47	4.53	88.9	4.31	89.2
LS-20	93.94	3.40	90.5	3.91	90.0
LS-21	92.93	NI	NI	2.25	90.7
LS-22	93.38	NI	NI	3.30	90.1
LS-23	93.66	NI	NI	3.70	90.0
LS-24	99.47	NI	NI	5.02	94.5
MW-6	94.74	2.06	92.7	2.90	91.8
MW-7	94.86	2.68	92.2	2.78	92.1

NOTES:

1. Elevations relative to an arbitrary datum assigned elevation 100.00 feet.
2. Measurements made from top of PVC using an electronic water level indicator.
3. NI = Not installed by this date.

Table 10
Catch Basin and Outfall Water Analytical Results
Volatile Organic Compounds (VOCs)
Concentrations in mg/l
298 Federal Street
Greenfield, MA

Well No.:	CB-1	CB-2	OF-1	OF-2	GW-2	GW-3	Surface Water
Sample Date:	3/15/12	3/15/12	4/11/12	4/11/12	Standard	Standard	Benchmark
cis-1,2-Dichloroethylene	0.031	0.16	< 0.001	< 0.001	0.1	50	14
Tetrachloroethylene	< 0.005	0.017	< 0.001	< 0.001	0.05	30	1.1
Trichloroethylene	0.12	**0.58**	< 0.001	< 0.001	0.03	5	0.19

NOTES:
1. Concentrations in milligrams per liter (mg/l, or parts per million).
2. "<" indicates not detected; value is quantitation limit.
3. Groundwater standards (GW-2/GW-3) are not strictly applicable to water in catch basin; shown for comparative purposes.
4. The surface water benchmarks are toxicity-based surface water concentrations used by MassDEP in developing GW-3 groundwater standards. These values are based on toxicity to aquatic life.
5. Shading indicates result exceeds surface water benchmark value.

Table 11
Soil Gas Photoionization Detector Screening Results
298 Federal Street
Greenfield, Massachusetts

Sample Location	PID Reading (ppmv)	Selected for Lab Analysis
SG-1	16.7	
SG-2	11.3	
SG-3	0.4	
SG-4	21.6	*
SG-5	0.8	
SG-6	0.0	*
SG-7	0.0	*
SG-8	0.0	
SG-9	0.4	*
SG-10	0.0	*
SG-11	0.0	*
SG-12	0.0	
SG-13	0.0	

NOTES:
1. "PID" = Photoionization detector screening reading from PID equipped with 11.8 eV lamp, calibrated to read in benzene equivalents in parts per million by volume (ppmv).
2. Measurements performed by OTO on January 26-27, 2012.
3. Minimum detection limit approximately 0.1 ppmv.

Table 12
Soil Gas Analytical Results
Concentrations in ug/m^3
298 Federal Street
Greenfield, Massachusetts

Sample ID:	SG-4	SG-6	SG-7	SG-9	SG-10	SG-11	Commercial/ Industrial Sub-Slab Screening Values
PID (ppmv):	21.6	0	0	0.4	0	0	
Sample Date:	1/26/12	3/15/12	3/15/12	1/26/12	1/27/12	1/27/12	
Volatile Organic Compounds							
Acetone	390	34	26	120	40	55	16,000
Benzene	< 31	< 3.2	< 3.2	< 5.1	1.1	0.61	770
Carbon Disulfide	< 69	< 3.1	< 3.1	< 12	1.2	< 1.2	NA
Dichlorodifluoromethane (Freon 12)	< 97	< 4.9	< 4.9	< 16	3.0	2.8	NA
cis-1,2-Dichloroethylene	< 38	< 4.0	< 4.0	12	< 0.65	< 0.65	700
Ethanol	< 45	480	490	< 7.6	15	9.5	NA
Ethylbenzene	< 50	< 4.3	< 4.3	< 8.4	< 0.85	1.0	20,000
4-Ethyltoluene	< 69	< 4.9	< 4.9	13	2.5	3.0	NA
Hexane	< 45	14	10	< 7.7	1.1	< 0.77	NA
Isopropanol	58	89	104	13	27	9.7	NA
Methyl ethyl ketone (MEK)	< 63	12	21	< 11	2.1	1.8	100,000
Methylene Chloride	< 92	6.2	< 3.5	< 15	< 1.5	< 1.5	770
Tetrachloroethylene	< 81	< 6.8	< 6.8	20	5.5	3.5	290
Tetrahydrofuran	< 39	< 3.0	5.5	< 6.5	< 0.65	< 0.65	NA
Toluene	< 42	< 3.8	7.2	< 7.1	7.4	4.3	100,000
1,1,1-Trichloroethane	**280**	< 5.5	< 5.5	41	7.9	6.7	100,000
Trichloroethylene	**20,000**	< 5.4	< 5.4	**4,100**	**170**	**66**	140
Trichlorofluoromethane (Freon 11)	< 150	< 5.6	< 5.6	< 25	16	21	NA
1,2,4-Trimethylbenzene	< 49	< 4.9	< 4.9	35	8.1	3.9	NA
1,3,5-Trimethylbenzene	< 86	< 4.9	< 4.9	15	3.2	2.1	NA
total Xylenes	< 206	< 8.6	< 8.6	< 34	4.4	5.6	2,000

NOTES:

1. Only analytes detected are shown on the table. Refer to laboratory reports for full listing of analytical parameters.
2. Concentrations in micrograms per cubic meter (ug/m3).
3. "PID" = Photoionization detector screening reading from PID equipped with 11.8 eV lamp (January) or 10.6 eV lamp (March), calibrated to read in benzene equivalents.
4. "<" = Not detected; value is quantitation limit.
5. Sub-Slab Soil Gas Screening Values from MassDEP Interim Final Vapor Intrusion Guidance, WSC#-11-435, December 2011.
6. "'NA" indicates no value available.
7. Shading indicates measured concentration exceeds the commercial/industrial soil gas screening value.

Table 13
Indoor Air Analytical Results
Concentrations in ug/m^3
298 Federal Street
Greenfield, Massachusetts

Sample ID	IA-1	IA-2	IA-3	IA-4	Commercial/ Industrial Indoor Air Threshold Values ($TV_{c/i}$)
Sample Location	Office	Basement near settling tanks	Basement SW corner	Basement north central	
Sample Date	1/26/12	1/26/12	1/26/12	1/26/12	
Volatile Organic Compounds					
Acetone	8.2	5.8	8.3	< 1.1	700
Benzene	1.8	0.89	< 0.51	1.4	11
Chloromethane	< 0.77	< 0.77	1.3	1.8	NA
Dichlorodifluoromethane (Freon 12)	3.2	3.2	3.4	3.5	NA
cis-1,2-Dichloroethylene	< 0.65	< 0.65	**2.6**	< 0.65	31
Ethanol	9.5	2.5	7.0	7.8	NA
Hexane	1.5	1.7	< 0.77	1.6	NA
Isopropanol	1.9	1.5	2.0	3.0	NA
Tetrachloroethylene	**1.6**	**2.2**	**4.4**	< 1.4	4.1
Toluene	3.0	1.2	< 0.71	2.1	4,400
Trichloroethylene	< 0.96	**5.6**	**2.3**	**8.1**	1.8
Trichlorofluoromethane (Freon 11)	13	7.9	4.7	9.8	NA

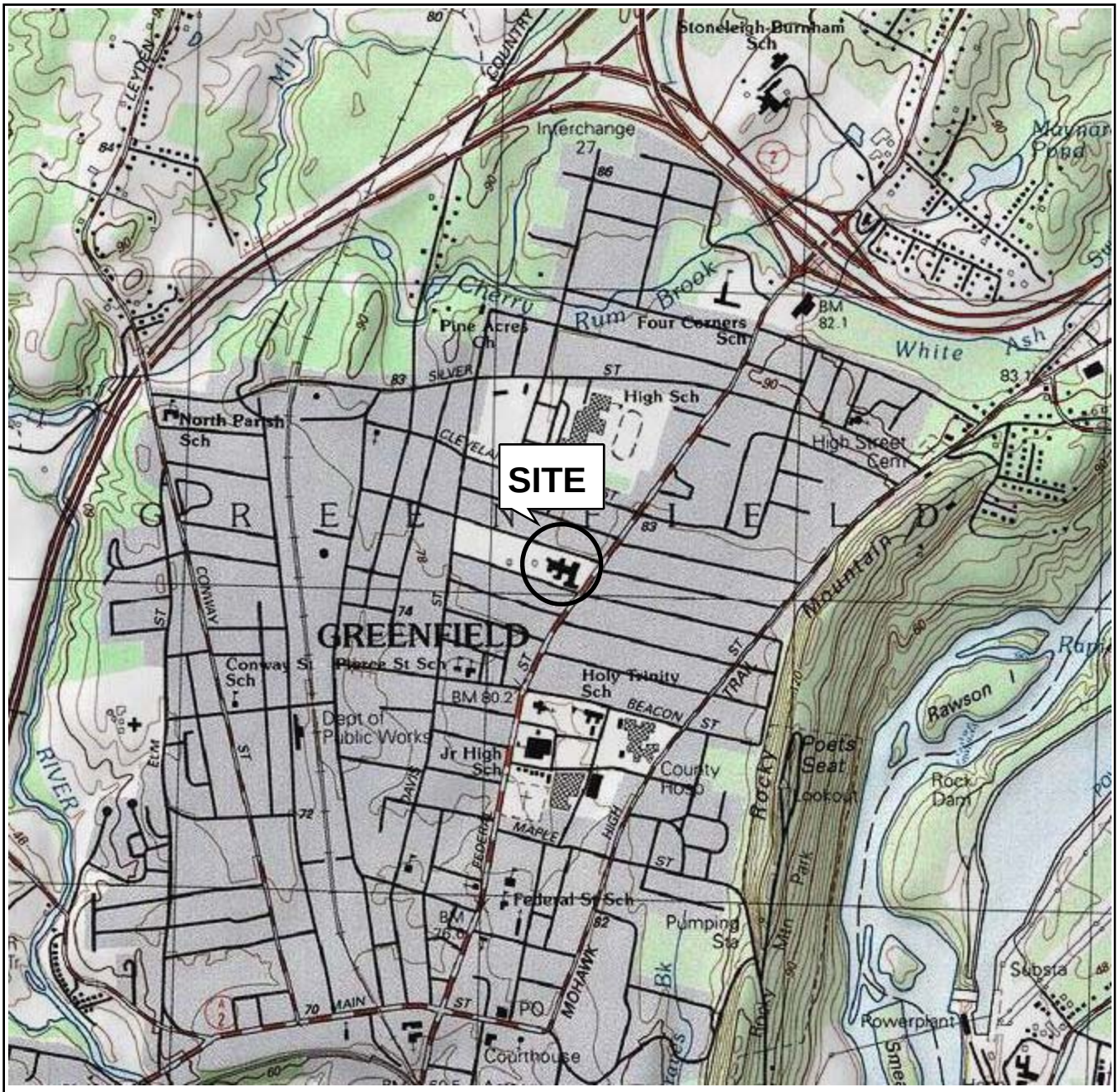
NOTES:

1. Only analytes detected are shown on the table. Refer to laboratory reports for full listing of analytical parameters.
2. Concentrations in micrograms per cubic meter (ug/m3).
3. "<" = Not detected; value is quantitation limit.
4. Indoor Air Threshold Values from MassDEP Interim Final Vapor Intrusion Guidance, WSC#-11-435, December 2011.
5. "'NA" indicates no threshold value available.
6. Shading indicates measured concentration exceeds the commercial/industrial indoor air Threshold Value.

Table 14
Preliminary Remedial Cost Estimates
Former Lunt Silversmiths Site
298 Federal Street
Greenfield, Massachusetts

Task	Cost Projection
1. Further assessment and reporting to support MCP obligations	$200,000
2. Activity and Use Limitation (AUL)	$20,000
3. TCE source area soil excavation and off-site disposal	$100,000
4. Groundwater interception and treatment installation and start-up	$125,000
5. Sub-slab depressurization installation and start-up	$150,000
6. Cyclone area soil capping	$75,000
7. Long term O&M	$200,000
Subtotal:	$870,000
Contingency (20%):	$174,000
Total:	$1,044,000

FIGURES



Topographic Map Quadrant: Greenfield, MA
Map Version: 1998
Current as of: 1990

0 .5 1 MILES
1000 0 1000 2000 3000 4000 5000 FEET
1 .5 0 KILOMETERS 1
1000 0 METERS 1000

O'Reilly, Talbot & Okun
[A S S O C I A T E S]
ENGINEERING
293 Bridge Street, Suite 500
Springfield, Massachusetts 01103
Phone: 413-788-6222
www.oto-env.com

298 Federal Street
Greenfield, Massachusetts

SITE LOCUS

March, 2012

Figure 1

O'Reilly, Talbot & Okun Associates, Inc.

Springfield, MA

N

LEGEND

- Cyclonic dust collector
- Electrical Transformer
- Degreaser
- Former Dumpster Location

FIGURE 2

SITE PLAN

FORMER LUNT SILVERSMITH PROPERTY

GREENFIELD, MASSACHUSETTS

File No. 1753-03-01

April 2012

O'Reilly, Talbot & Okun Associates, Inc.

Springfield, MA

N

LEGEND

LS-1 Soil Boring Location

LS-10 OTO Monitoring Well Location

MW-6 Previoiusly Existing Monitoring Well Location

Storm water catch basin

Sump in basement

FIGURE 3

SOIL BORING AND MONITORING WELL LOCATIONS

FORMER LUNT SILVERSMITH PROPERTY

GREENFIELD, MASSACHUSETTS

File No. 1753-03-01

April 2012

MassDEP - Bureau of Waste Site Cleanup

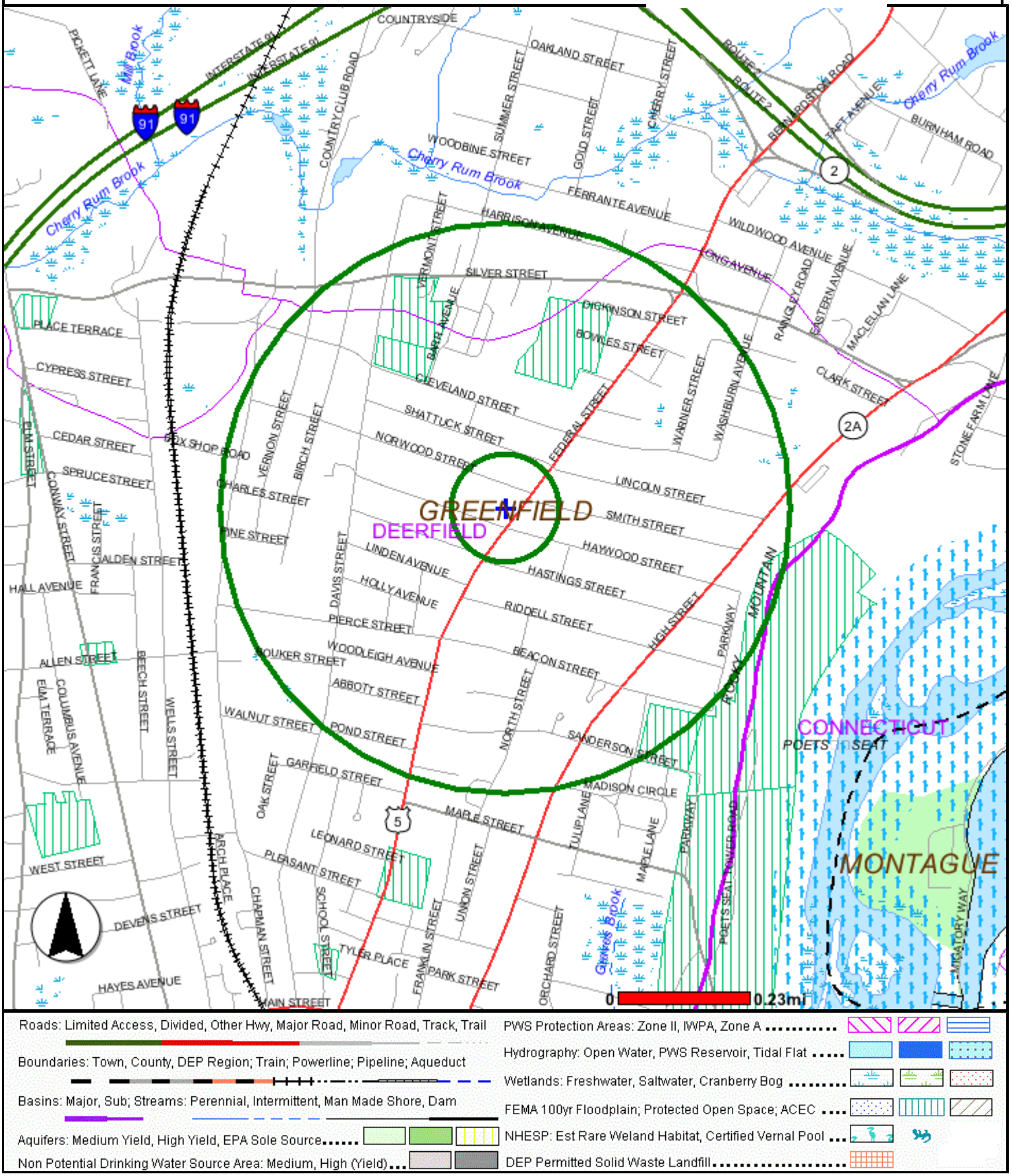
MCP Numerical Ranking System Map: 500 feet & 0.5 Mile Radii

Site Name:
RTN:
NAD83 MA Coordinates:
110168mE, 928372mN

April 6, 2011

The information shown on this map is the best available at the date of printing. For more information please refer to www.mass.gov/mgis/massgis.htm

MassDEP
Commonwealth of Massachusetts
Department of Environmental Protection



Roads: Limited Access, Divided, Other Hwy, Major Road, Minor Road, Track, Trail

Boundaries: Town, County, DEP Region; Train; Powerline; Pipeline; Aqueduct

Basins: Major, Sub; Streams: Perennial, Intermittent, Man Made Shore, Dam

Aquifers: Medium Yield, High Yield, EPA Sole Source

Non Potential Drinking Water Source Area: Medium, High (Yield)

PWS Protection Areas: Zone II, IWPA, Zone A

Hydrography: Open Water, PWS Reservoir, Tidal Flat

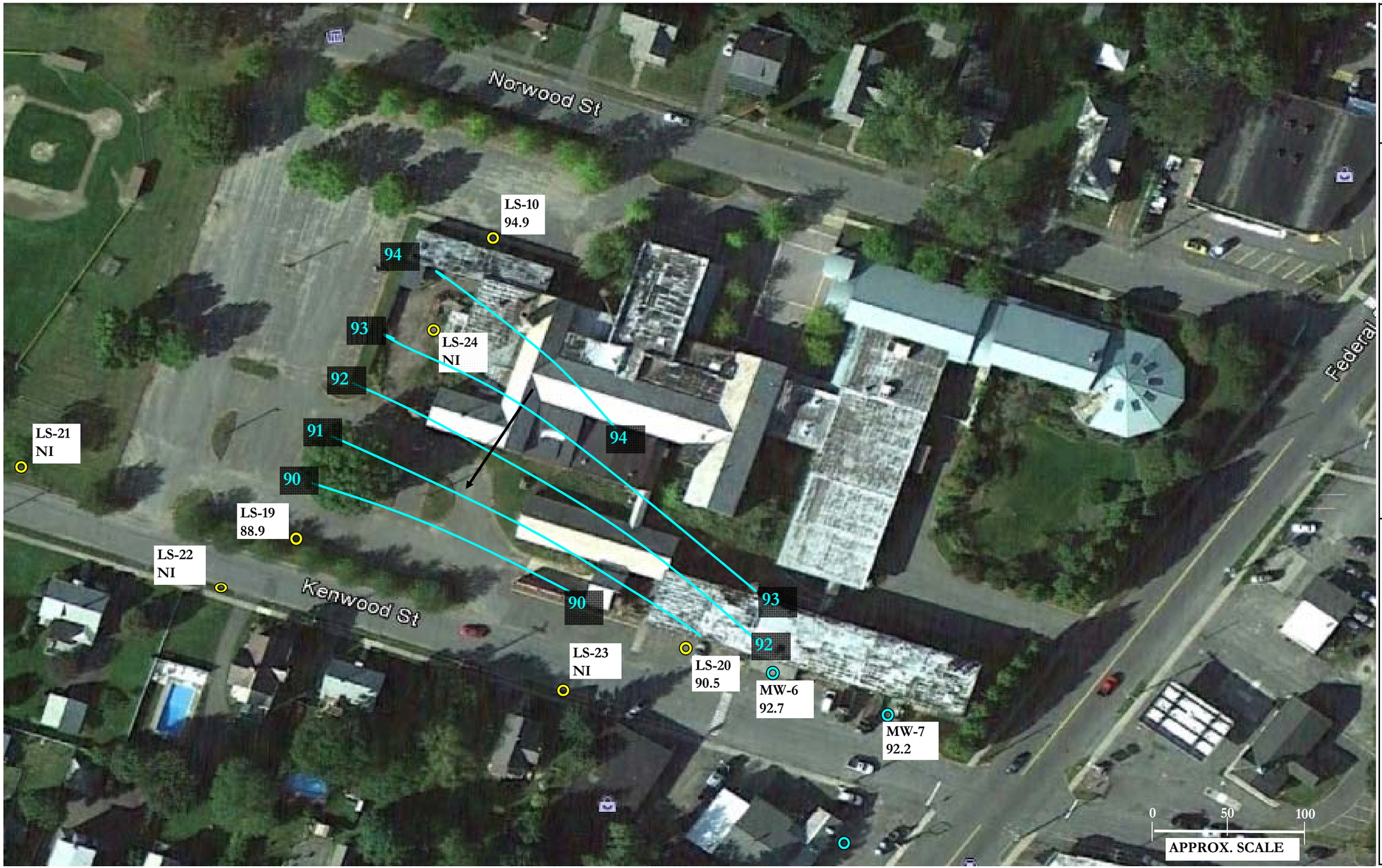
Wetlands: Freshwater, Saltwater, Cranberry Bog

FEMA 100yr Floodplain; Protected Open Space; ACEC

NHESP: Est Rare Weland Habitat, Certified Vernal Pool

DEP Permitted Solid Waste Landfill

Figure 4
MassDEP Priority Resource Map
298 Federal Street, Greenfield



O'Reilly, Talbot & Okun Associates, Inc.

Springfield, MA

N

LEGEND

99 Relative Water Table Elevation (1/19/2012)

OTO Monitoring Well Location

Previoiusly Existing Monitoring Well Location

Estimated Groundwater Flow Direction

FIGURE 5

GROUNDWATER CONTOUR PLAN

FORMER LUNT SILVERSMITH PROPERTY

GREENFIELD, MASSACHUSETTS

File No. 1753-03-01

April 2012

N

O'Reilly, Talbot & Okun Associates, Inc.

Springfield, MA

LEGEND

Indoor Air Sample Location

Soil Gas Sample Location

FIGURE 6

SOIL GAS AND INDOOR AIR SAMPLE LOCATIONS

FORMER LUNT SILVERSMITH PROPERTY

GREENFIELD, MASSACHUSETTS

File No. 1753-03-01

April 2012

O'Reilly, Talbot & Okun Associates, Inc.

Springfield, MA

N

LEGEND

Chlorinated VOCs in soil, groundwater +/or soil gas above standards

Chlorinated VOCs in soil, groundwater +/or soil gas below standards

- Soil Boring Location
- OTO Monitoring Well Location
- Previoiusly Existing Monitoring Well Location
- Indoor Air Sample Location
- Soil Gas Sample Location

FIGURE 7

AREAS OF CONCERN: CVOCs

FORMER LUNT SILVERSMITH PROPERTY

GREENFIELD, MASSACHUSETTS

File No. 1753-03-01

April 2012

O'Reilly, Talbot & Okun Associates, Inc.

Springfield, MA

N

LEGEND

Metals measrued in soil above reportable levels

Metals levels measured are below reportable concentrations

- Soil Boring Location
- OTO Monitoring Well Location
- Previoiusly Existing Monitoring Well Location

FIGURE 8

AREAS OF CONCERN: METALS IN SOIL

FORMER LUNT SILVERSMITH PROPERTY

GREENFIELD, MASSACHUSETTS

File No. 1753-03-01

April 2012

APPENDIX A
LIMITATIONS

LIMITATIONS

1. Our report does not present scientific certainties, but rather our professional opinions on the data obtained through our assessment. Our report was prepared for the exclusive benefit of our client. Reliance upon the report and its conclusions is not made to third parties or future property owners. We would be pleased to discuss extension of reliance to third parties through execution of a written contract with such parties.

2. The observations presented in this report were made under the conditions described herein. The conclusions presented in this report were based solely upon the services described in the report and not on scientific tasks or procedures beyond the scope of the project or the time and budgetary constraints imposed by the client. The work described in this report was carried out in accordance with the contract Terms and Conditions.

3. In preparing the report O'Reilly, Talbot & Okun Associates, Inc. relied on certain information provided by state and local officials and other parties referenced herein, and on information contained in prior site reports. Although there may have been some degree of overlap in the information provided by these sources, O'Reilly, Talbot, & Okun Associates, Inc. did not attempt to independently verify the accuracy or completeness of all information reviewed or received during the course of this assessment.

4. Limited observations were made of the site and of the structures on the site, as indicated within the report. Where access to portions of the site or to structures on the site was unavailable or limited, we render no opinion as to the presence of hazardous materials/oil or asbestos containing materials, or to the presence of indirect information relating to hazardous materials/oil in that portion of the site. No destructive sampling was conducted to expose hidden potentially asbestos containing materials, and significant amounts of asbestos could be located in these areas, which would not be observed during our visit. In addition, we render no opinion as to the presence of hazardous materials/oil or asbestos containing materials, where direct observations of portions of the site were obstructed by objects or coverings on or over these surfaces.

5. Unless otherwise specified in the Report, we did not perform testing or analyses to determine the presence or concentration of asbestos at the site or in the environment at the site.

6. The purpose of this Report was to assess the physical characteristics of the subject site with respect to the presence of hazardous material or oil in soil or groundwater at the site. No specific attempt was made to check on the compliance of present or past owners or operators of the site with federal, state, or local laws and regulations, environmental or otherwise.

APPENDIX B
INFORMATION FROM GOLY'S GARAGE SITE

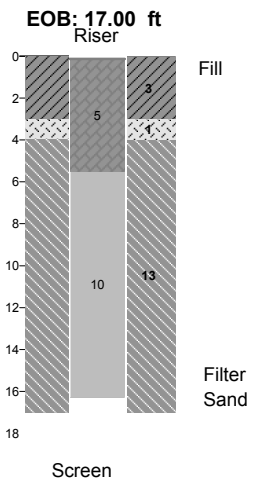
588 Silver Street
Agawam, MA 01001

SOIL BORING & MONITORING WELL INSTALLATION LOG

Boring Name: MW-6		Job Number: 14685.00	
Boring Company:	Environmental Compliance Services , Inc	**Site Name:**	Golys Garage
Address:	588 Silver Street	**Address:**	286 Federal Street
Town:	Agawam	**Town:**	Greenfield
State/Zip:	MA 01001	**State/Zip:**	MA 01301
Foreman:	Stanley Werbicki	**Client:**	Goly's Garage Inc.

Installed/Finished: 09/08/2006 - 09/08/2006

Location of Boring:



Depth (feet)	Penetration/ Recovery (inches)	Blow Count (per 6 in.)	Strata	Soil Descriptions	Field Testing
0 - 1	12/0				
1 - 2	12/0				
2 - 3	12/0				
3 - 4	12/0				
4 - 5	12/0				
5 - 6	12/9	3-4	Clay	damp gray CLAY, silt, fine sand	356
6 - 7	12/12	3-4	Clay	damp gray CLAY, silt, fine sand	356
7 - 8	12/0				
8 - 9	12/0				
9 - 10	12/0				
10 - 11	12/12	3-2	Clay	wet gray CLAY, trace of silt, fine sand	2187

Depth(s), Analyte(s), Time(s) Sampled: Sampled

11 - 12	12/12	3-5	Clay	wet gray CLAY, trace of silt, fine sand	2187
12 - 13	12/0				
13 - 14	12/0				
14 - 15	12/0				
15 - 16	12/12	2-1	Clay	wet gray CLAY, trace of silt, fine sand	1112
16 - 17	12/12	2-2	Clay	wet gray CLAY, trace of silt, fine sand	1112

Boring Type: Hollow Stem Auger 1
Auger Inside Diameter (in): 4.25
Hammer Weight (lbs): 140
Hammer Fall (in): 30
Sampler Inside Diameter (in): 1.375
Sampler Type: S.S. Split Spoon 1
Sampler Length (in.): 24
ECS Inspector: Anita Hansen

Well Construction Data:

A 2.00 inch monitoring well was installed at 15.00 ft below grade using 10.00 ft of 0.01 slotted screen and 5.00 ft of solid riser, sand packed to 4.00 ft below grade, bentonite sealed to 3.00 ft below grade; native fill.

Notes: Field Testing values represent total volatile organic vapors (referenced to a benzene standard) measured in the headspace of sealed soil sample jars with an OVM 580B photoionization meter with a Detection Limit of 0.1 ppm. Results reported in Parts Per Million (ppm), BDL=Below Detection Limit

Notes:

Depth(s), Analyte(s), Time(s) Sampled: Sampled

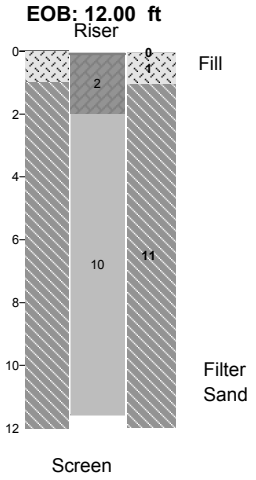
588 Silver Street
Agawam, MA 01001

SOIL BORING & MONITORING WELL INSTALLATION LOG

Boring Name: MW-7		Job Number: 14685.00	
Boring Company:	Environmental Compliance Services , Inc	**Site Name:**	Golys Garage
Address:	588 Silver Street	**Address:**	286 Federal Street
Town:	Agawam	**Town:**	Greenfield
State/Zip:	MA 01001	**State/Zip:**	MA 01301
Foreman:	Stanley Werbicki	**Client:**	Goly's Garage Inc.

Installed/Finished: 09/08/2006 - 09/08/2006

Location of Boring:



Depth (feet)	Penetration/ Recovery (inches)	Blow Count (per 6 in.)	Strata	Soil Descriptions	Field Testing
0 - 1	12/0				
1 - 2	12/0				
2 - 3	12/0				
3 - 4	12/0				
4 - 5	12/0				
5 - 6	12/10	1-2	Clay	damp light brown CLAY, trace of fine sand, silt	0
6 - 7	12/12	3-5	Clay	damp light brown CLAY, trace of fine sand, silt	0
7 - 8	12/0				
8 - 9	12/0				
9 - 10	12/0				
10 - 11	12/12	2-1	Clay	moist 22" gray CLAY, over 2" red med sand, clay	0

Depth(s), Analyte(s), Time(s) Sampled: Sampled

11 - 12	12/12	2-refusal	Clay	moist 22" gray CLAY, over 2" red med sand, clay	0

Boring Type: Hollow Stem Auger 1
Auger Inside Diameter (in): 4.25
Hammer Weight (lbs): 140
Hammer Fall (in): 30
Sampler Inside Diameter (in): 1.375
Sampler Type: S.S. Split Spoon 1
Sampler Length (in.): 24
ECS Inspector: Anita Hansen

Well Construction Data:

A 2.00 inch monitoring well was installed at 12.00 ft below grade using 10.00 ft of 0.01 slotted screen and 2.00 ft of solid riser, sand packed to 1.00 ft below grade, bentonite sealed to 0.00 ft below grade; native fill.

Notes: Field Testing values represent total volatile organic vapors (referenced to a benzene standard) measured in the headspace of sealed soil sample jars with an OVM 580B photoionization meter with a Detection Limit of 0.1 ppm. Results reported in Parts Per Million (ppm), BDL=Below Detection Limit

Notes:

Depth(s), Analyte(s), Time(s) Sampled: Sampled

TABLE 2
SUMMARY OF RESULTS OF ANALYSIS OF SOIL SAMPLES

Goly's Garage, 286 Federal Street, Greenfield, MA
MADEP RTN 1-001047

(MassDEP Methods VPH 97-12 and 5/2004R, EPH 98-1 and 5/2004R, and USEPA 200.7)
Results and standards reported in milligrams per kilogram (mg/Kg) or micrograms per kilogram (µg/Kg), as indicated

Sample Location	S-2 (Northern Wall)[1]	S-3 (East Wall)[1]	S-4 (South Wall)[1]	S-1 (West Wall)[1]	MW-3	EP-3	MW-4	EP-4	MW-5	EP-5	EP-5	EP-1	EP-2	EP-2	MW-6	MW-7
Sampling Date	4/23/1993	4/23/1993	4/23/1993	4/23/1993	8/23/2002	8/26/2009	8/23/2002	8/26/2009	8/23/2002	8/26/2009	8/26/2009	8/26/2009	8/26/2009	8/26/2009	9/8/2006	9/8/2006
Sample Depth	<5'	<5'	<5'	<5'	5-7'	8-9'	5-7'	8-10'	5-7'	0-3'	4-8'	4-8'	0-3'	8-9'	10-12'	10-12'
TOV (ppm)	207	<1	3	6	420	2,800	235	2,570	434	12.6	3,220	3,400	18.7	983	2,187	ND
VPH (mg/Kg)																
C_5-C_8 Aliphatics	NT	NT	NT	NT	33	86.0	NT	18.2	**380**	<0.825	**568**	**691**	<3.97	**284**	15.4	<1.39
C_9-C_{12} Aliphatics	NT	NT	NT	NT	11	179	NT	15.4	93	0.453	652	672	<1.32	182	<0.493	<0.465
C_9-C_{10} Aromatics	NT	NT	NT	NT	41	**123**	NT	11.1	**470**	0.416	**430**	**517**	<1.32	92.3	<0.493	<0.465
VPH Analytes (µg/Kg)																
Benzene	<1,000	<5.0	<5.0	<5.0	<230	<665	NT	78.9	<1,200	<55.0	1,600	<6,710	<265	<1,170	<98.7	<92.9
Toluene	<1,500	<7.5	<7.5	<7.5	320	1,520	NT	284	<1,200	<55.0	9,830	11,100	<265	6,970	<98.7	<92.9
Ethylbenzene	<1,000	<5.0	<5.0	<5.0	3,800	3,770	NT	217	11,600	<55.0	8,220	8,210	<265	<1,170	<98.7	<92.9
Total Xylenes	68,000	<5.0	<5.0	<5.0	25,500	32,890	NT	4,128	175,500	<110	89,820	179,500	<530	3,940	<197	<186
Naphthalene	NT	NT	NT	NT	2,500	13,100	NT	870	<1,200	<55.0	34,440	35,200	<265	9,170	<98.7	<92.9
Methyl tert-butyl ether	<10,000	<50	<50	<50	<230	<665	NT	<64.0	<1,200	<55.0	<2,820	<6,710	<265	<1,170	<98.7	<92.9
EPH (mg/kg)																
C_9-C_{18} Aliphatics	180	56	44	92	<40	NT	NT	NT	880	NT	NT	NT	NT	NT	NT	NT
C_{19}-C_{36} Aliphatics	NA	NA	NA	NA	<40	NT	NT	NT	330	NT	NT	NT	NT	NT	NT	NT
C_{11}-C_{22} Aromatics	270	84	66	138	<40	NT	NT	NT	669	NT	NT	NT	NT	NT	NT	NT
PAH[4] (µg/Kg)																
Naphthalene	NT	NT	NT	NT	670	NT	NT	NT	6,500	NT	NT	NT	NT	NT	NT	NT
2-Methylnaphthalene	NT	NT	NT	NT	600	NT	NT	NT	11,000	NT	NT	NT	NT	NT	NT	NT
Acenaphthene	NT	NT	NT	NT	<180	NT	NT	NT	530	NT	NT	NT	NT	NT	NT	NT
Acenaphthylene	NT	NT	NT	NT	<180	NT	NT	NT	<230	NT	NT	NT	NT	NT	NT	NT
Fluorene	NT	NT	NT	NT	<180	NT	NT	NT	730	NT	NT	NT	NT	NT	NT	NT
Phenanthrene	NT	NT	NT	NT	<180	NT	NT	NT	1,500	NT	NT	NT	NT	NT	NT	NT
Anthracene	NT	NT	NT	NT	<180	NT	NT	NT	<230	NT	NT	NT	NT	NT	NT	NT
Fluoranthene	NT	NT	NT	NT	<180	NT	NT	NT	<230	NT	NT	NT	NT	NT	NT	NT
Pyrene	NT	NT	NT	NT	<180	NT	NT	NT	260	NT	NT	NT	NT	NT	NT	NT
Benzo(a)anthracene	NT	NT	NT	NT	<180	NT	NT	NT	<230	NT	NT	NT	NT	NT	NT	NT
Chrysene	NT	NT	NT	NT	<180	NT	NT	NT	<230	NT	NT	NT	NT	NT	NT	NT
Benzo(b)fluoranthene	NT	NT	NT	NT	<180	NT	NT	NT	<230	NT	NT	NT	NT	NT	NT	NT
Benzo(k)fluoranthene	NT	NT	NT	NT	<180	NT	NT	NT	<230	NT	NT	NT	NT	NT	NT	NT
Benzo(a)pyrene	NT	NT	NT	NT	<180	NT	NT	NT	<230	NT	NT	NT	NT	NT	NT	NT
Indeno(1,2,3-cd)pyrene	NT	NT	NT	NT	<180	NT	NT	NT	<230	NT	NT	NT	NT	NT	NT	NT
Dibenzo(a,h)anthracene	NT	NT	NT	NT	<180	NT	NT	NT	<230	NT	NT	NT	NT	NT	NT	NT
Benzo(g,h,i)perylene	NT	NT	NT	NT	<180	NT	NT	NT	<230	NT	NT	NT	NT	NT	NT	NT
VOC'S by 8260/8240 (µg/Kg)																
1,2-Dibromoethane (EDB)	NT	NT	NT	NT	NT	NT	NT	NT	<1,200	NT	NT	NT	NT	NT	<97.3	<93.4
cis-1,2-Dichloroethene	<1,000	<5.0	<5.0	<5.0	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	**10,100**	<93.4
trans-1,2-Dichloroethene	<1,500	<7.5	<7.5	<7.5	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	**1,440**	<93.4
Tetrachloroethene	<1,500	<7.5	<7.5	<7.5	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	406	<93.4
Trichloroethene	<1,000	<5.0	<5.0	<5.0	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	**85,400**	<93.4
Total Xylenes	68,000	<5.0	<5.0	<5.0	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	<195	<187
Metals (mg/kg)																
Total Lead	NT	NT	NT	NT	NT	NT	NT	NT	38.5	NT	NT	NT	NT	NT	NT	NT

NOTES: ND = Not detected at the method detection limits. NA = Not applicable. NT = sample not tested for this analyte
Bold = Concentrations Above Method 2 Standard.

[1] This sample was analyzed via USEPA TPH Method 418.1 and USEPA Method 8240. In order to compare these results to current standards, EPH fraction concentrations were calculated from the TPH concentration reported as described in WCS-02-411, *Implementation of the MADEP VPH/EPH Approach, Final Policy* (October 31, 2002).

[2] MCP Method 1 Standards pursuant to 310 CMR 40.0975(6)(a),(b), and (c).

[3] Standard for Total Xylenes.

[4] Polycyclic Aromatic Hydrocarbons.

TABLE 3
SUMMARY OF RESULTS OF ANALYSIS OF GROUNDWATER SAMPLES

Goly's Garage, 286 Federal Street, Greenfield, MA
MassDEP RTN 1-1047

MassDEP VPH Methods 97-12 and 5/2004R and USEPA Methods 6010B and 6020A
Results reported in milligrams per liter (mg/L) or micrograms per liter (µg/L) as noted

Well ID/ Elevation	Sampling Date	Depth to Water	GW Elevation	Sampling Method	C_5-C_8 Aliphatic Hydrocarbons	C_9-C_{12} Aliphatic Hydrocarbons	C_9-C_{10} Aromatic Hydrocarbons	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	Naphthalene	MtBE	Dissolved Lead
					mg/L			µg/L							mg/L
				MCP Method 2 GW-2 Standards [2]	3	5	7	2,000	50,000	20,000	9,000 [3]	NA	1,000	50,000	NA
				MCP Method 2 GW-3 Standards [2]	50	50	50	10,000	40,000	5,000	5,000 [3]	NA	20,000	50,000	0.01
MW-1	8/30/02	5.71	94.51	Bailer	<0.075	<0.025	<0.025	<5.0	<5.0	<5.0	<10.0	ND	<5.0	8.00	NT
100.22	4/26/07	4.82	95.40	Low-flow	<0.075	<0.025	<0.025	<5.0	<5.0	<5.0	<10.0	ND	<5.0	8.30	NT
	5/31/07	5.26	94.96	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-2	4/26/07	DRY	DRY	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
100.61	5/31/07	DRY	DRY	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-3	8/30/02	2.98	97.02	Bailer	**5.1**	2.0	**18.0**	<50	900	2,800	23,700	27,400	1,200	<50	0.0222
100.00	4/26/07	2.95	97.05	Low-flow	0.98	0.73	1.67	<5.0	36.4	272	1,930	2,238	120	<5.0	NT
	5/31/07	3.36	96.64	Low-flow	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.0166
	8/26/09	3.10	96.90	Low-flow	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.0059
MW-5	8/30/02	3.34	96.07	Bailer	0.53	0.17	**8.0**	410	85	680	9,393	10,568	690	30	<0.0075
99.41	4/26/07	2.73	96.68	Low-flow*	0.21	0.19	0.45	15.4	<5.0	21.5	180.1	217	23.0	<5.0	0.0114
	5/31/07	3.14	96.27	Low-flow*	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.0075
MW-6	4/26/07	4.80	93.50	Low-flow	**51.9**	<0.250	0.26	<50	<50	<50	<100	ND	<50	<50	NT
98.30	5/31/07	3.09	95.21	Low-flow	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
MW-7	4/26/07	2.67	96.20	Low-flow	<0.0750	<0.0250	<0.0250	<5.0	<5.0	<5.0	<10.0	ND	<5.0	<5.0	NT
98.87	5/31/07	2.89	95.98	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-9	4/26/07	3.69	95.17	Low-flow	<0.0750	<0.0250	<0.0250	<5.0	<5.0	<5.0	<10.0	ND	<5.0	7.10	NT
98.86	5/31/07	3.87	94.99	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-10	4/26/07	5.15	94.06	Low-flow	0.12	<0.250	<0.250	<5.0	<5.0	<5.0	<10.0	ND	<5.0	<5.0	<0.0075
99.21	5/31/07	6.06	93.15	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-11	4/26/07	4.36	95.43	Low-flow	<0.0750	<0.0250	<0.0250	<5.0	<5.0	<5.0	<10.0	ND	<5.0	<5.0	NT
99.79	5/31/07	5.57	94.22	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-13	4/26/07	3.64	95.61	Low-flow	<0.0750	<0.0250	<0.0250	<5.0	<5.0	<5.0	<10.0	ND	<5.0	<5.0	NT
99.25	5/31/07	4.82	94.43	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
				No. Analyses	12	12	12	12	12	12	12	NA	12	12	7
				No. Detections	6	4	5	2	3	4	4	NA	4	3	4
				Frequency of Detection	50%	33%	42%	17%	25%	33%	33%	NA	33%	25%	57%
				Maximum Detection	51.9	2.0	18.0	410	900	2,800	23,700	NA	1,200	30.0	0.0222
				Location of Maximum Detection	MW-6	MW-3	MW-3	MW-5	MW-3	MW-3	MW-3	NA	MW-3	MW-5	MW-3
				COC for Site GW (Y/N)	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	N

[1] MCP Method 1 Standards as documented in 310 CMR 40.0974(2)

[2] Published Method 2 MCP Standards prior to effective date per 310 CMR 40.0982(7)

[3] Standard for Total Xylenes

NA is Not Applicable

NS is No Sample collected at this well on this date

NT is sample not analyzed for this compound

MtBE is methyl tert butyl ether

TABLE 4
SUMMARY OF RESULTS OF ANALYSIS OF GROUNDWATER SAMPLES

Goly's Garage, 286 Federal Street, Greenfield, MA
MassDEP RTN 1-1047

MassDEP EPH Methods 98-1 and 5/2004R
Results reported in milligrams per liter (mg/L) or micrograms per liter (µg/L) as noted

Well ID/ Elevation	Sampling Date	Depth to Water	GW Elevation	Sampling Method	C_9-C_{18} Aliphatic Hydrocarbons	C_{19}-C_{36} Aliphatic Hydrocarbons	C_{11}-C_{22} Aromatic Hydrocarbons	Naphthalene	2-Methyl naphthalene	Acenaphthene	Acenaphthylene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo(a) anthracene	Chrysene	Benzo(b) fluoranthene	Benzo (k) fluoranthene	Benzo (a) pyrene	Indeno (1,2,3-cd) pyrene	Dibenzo (a,h) anthracene	Benzo (g,h,I) perylene
					mg/L			µg/L																	
		MCP Method 1 GW-2 Standards [1]			5	NA	50	1,000	2,000	NA	10,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		MCP Method 1 GW-3 Standards [1]			50	50	5	20,000	20,000	6,000	40	40	10,000	30	200	20	1,000	70	400	100	500	100	40	20
MW-1	8/30/02	5.71	94.51	Bailer	<0.2	<0.2	<0.2	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
100.22	4/26/07	4.82	95.40	Low-flow	<0.2	<0.2	<0.2	<1.0	<1.0	<1.0	1.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.200	<0.500	<0.500	<1.0
MW-2	4/26/07	DRY	DRY	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
100.61																								
MW-3	8/30/02	2.98	97.02	Bailer	2.8	<0.2	**6.7**	270	130	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
100.00	4/26/07	2.95	97.05	Low-flow	0.3	<0.2	0.4	58.9	15.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.200	<0.500	<0.500	<1.0
MW-5	8/30/02	3.34	96.07	Bailer	1.6	0.66	**5.9**	210	120	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
99.41	4/26/07	2.73	96.68	Low-flow	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
	5/31/07	3.14	96.27	Low-flow	<0.2	<0.2	<0.2	21.5	7.11	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.200	<0.500	<0.500	<1.0
MW-6	4/26/07	4.80	93.50	Low-flow	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
98.30	5/31/07	3.09	95.21	Low-flow	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
MW-7	4/26/07	2.67	96.20	Low-flow	<0.2	<0.2	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.200	<0.500	<0.500	<1.0
98.87																								
MW-9	4/26/07	3.69	95.17	Low-flow	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
98.86																								
MW-10	4/26/07	5.15	94.06	Low-flow	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
99.21																								
MW-11	4/26/07	4.36	95.43	Low-flow	<0.2	<0.2	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.200	<0.500	<0.500	<1.0
99.79																								
MW-13	4/26/07	3.64	95.61	Low-flow	<0.2	<0.2	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.200	<0.500	<0.500	<1.0
99.25																								
				No. Analyses	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
				No. Detections	3	1	3	4	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
				Frequency of Detection	33%	11%	33%	44%	44%	0%	11%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
				Maximum Detection	2.8	0.66	6.7	270	130	NA	1.25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
				Location of Maximum Detection	MW-3	MW-5	MW-3	MW-5	MW-5	NA	MW-1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
				COC for Site GW (Y/N)	Y	Y	Y	Y	Y	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N

[1] MCP Method 1 Standards as documented in 310 CMR 40.0974(2)
NA is Not Applicable
NS is No Sample collected at this well on this date
NT is sample not analyzed for this compound

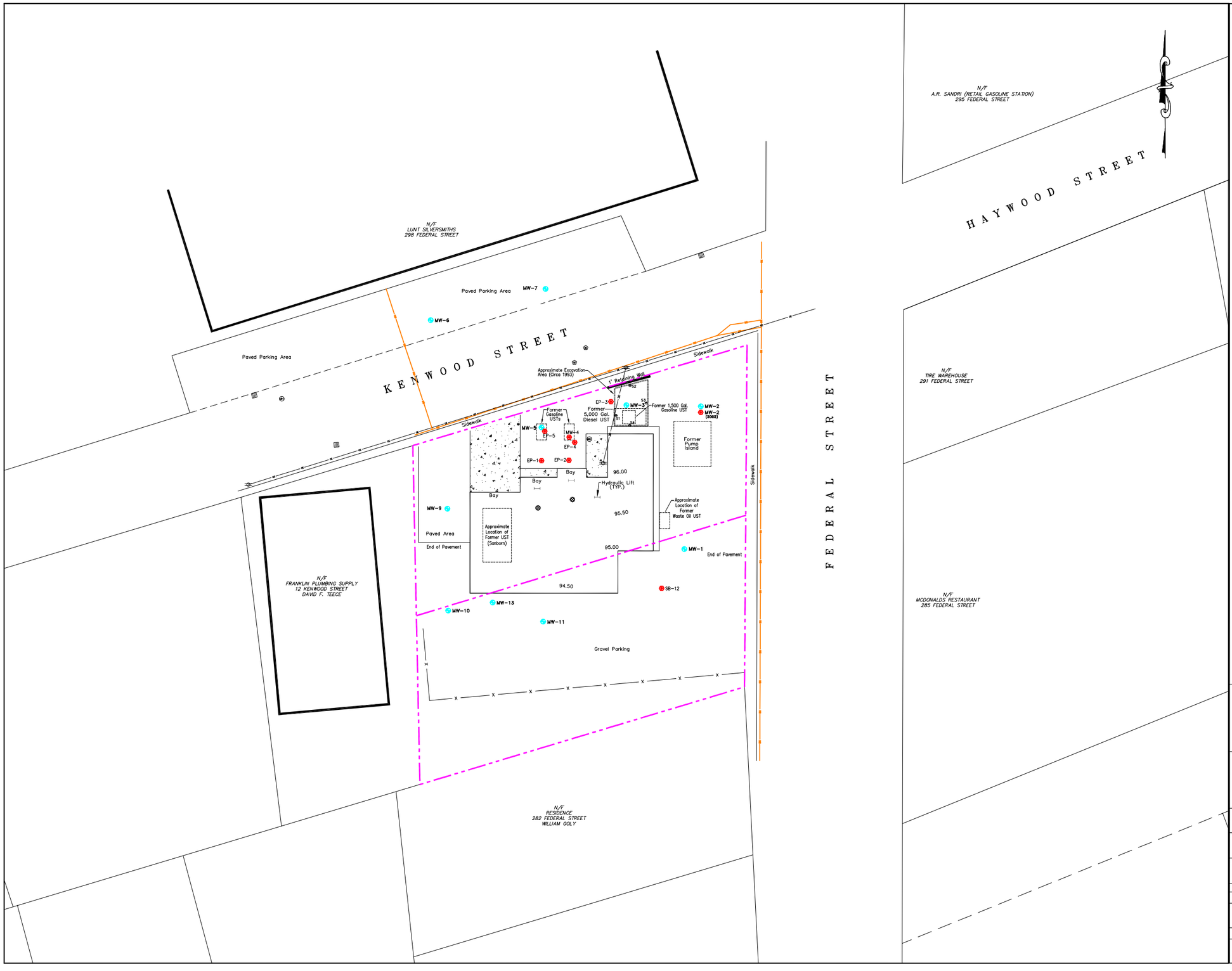
TABLE 5
SUMMARY OF RESULTS OF ANALYSIS OF GROUNDWATER SAMPLES

Goly's Garage, 286 Federal Street, Greenfield, MA
MassDEP RTN 1-1047

USEPA Methods 8260B and 504.1
Results reported in milligrams per liter (mg/L) or micrograms per liter (µg/L) as noted

Well ID/ Elevation	Sampling Date	Depth to Water	GW Elevation	Sampling Method	EDB	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene
		MCP Method 1 GW-2 Standards [1]			2	100	90	50	30
		MCP Method 1 GW-3 Standards [1]			50,000	50,000	50,000	30,000	5,000
MW-1	8/30/02	5.71	94.51	Bailer	NT	NT	NT	NT	NT
100.22	4/26/07	4.82	95.40	Low-flow	NT	NT	NT	NT	NT
	5/31/07	5.26	94.96	Low-flow	NS	NS	NS	NS	NS
MW-2	4/26/07	DRY	DRY	NA	NS	NS	NS	NS	NS
100.61	5/31/07	DRY	DRY	NA	NS	NS	NS	NS	NS
MW-3	8/30/02	2.98	97.02	Bailer	<50.0	NT	NT	NT	NT
100.00	4/26/07	2.95	97.05	Low-flow	NT	NT	NT	NT	NT
	5/31/07	3.36	96.64	Low-flow	NT	NT	NT	NT	NT
MW-5	8/30/02	3.34	96.07	Bailer	<10.0	NT	NT	NT	NT
99.41	4/26/07	2.73	96.68	Low-flow*	<0.0100	NT	NT	NT	NT
	5/31/07	3.14	96.27	Low-flow*	NT	NT	NT	NT	NT
MW-6	4/26/07	4.80	93.50	Low-flow	NT	**11,300**	**1,480**	**<500**	***80,800***
98.30	5/31/07	3.09	95.21	Low-flow	NT	NT	NT	NT	NT
MW-7	4/26/07	2.67	96.20	Low-flow	NT	NT	NT	NT	NT
98.87	5/31/07	2.89	95.98	NA	NS	NS	NS	NS	NS
MW-9	4/26/07	3.69	95.17	Low-flow	NT	<1.0	<1.0	4.9	2.5
98.86	5/31/07	3.87	94.99	NA	NS	NS	NS	NS	NS
MW-10	4/26/07	5.15	94.06	Low-flow	<0.0100	<1.0	<1.0	1.0	<1.0
99.21	5/31/07	6.06	93.15	NA	NS	NS	NS	NS	NS
MW-11	4/26/07	4.36	95.43	Low-flow	NT	NT	NT	NT	NT
99.79	5/31/07	5.57	94.22	NA	NS	NS	NS	NS	NS
MW-13	4/26/07	3.64	95.61	Low-flow	NT	NT	NT	NT	NT
99.25	5/31/07	4.82	94.43	NA	NS	NS	NS	NS	NS
				No. Analyses	4	3	3	3	3
				No. Detections	0	1	1	2	2
				Frequency of Detection	0%	33%	33%	67%	67%
				Maximum Detection	NA	11,300	1,480	4.9	80,800
				Location of Maximum Detection	NA	MW-6	MW-6	MW-9	MW-6
				COC for Site GW (Y/N)	N	N	N	Y	Y

[1] MCP Method 1 Standards as documented in 310 CMR 40.0974(2)
NA is Not Applicable
NS is No Sample collected at this well on this date
NT is sample not analyzed for this compound



Legend

- Approximate Property Line
- SS — Sanitary Sewer Line
- SW — Storm Sewer Line
- W — Water Line
- NG — Natural Gas Line
- OE — Overhead Electric Line
- MH — Manhole
- Catchbasin
- Water Gate
- Fire Hydrant
- Utility Pole
- Soil Sample
- Soil Boring
- Monitoring Well
- ECS–1 — Well I.D.

General Notes:

All locations, dimensions, and property lines depicted on this plan are approximate. This plan should not be used for construction or land conveyance purposes.

ecs
588 Silver Street • Agawam, MA 01001
Phone: 1-800-789-3530 Fax: 413-789-2776

PROJECT:
Goly's Garage
286 Federal Street
Greenfield, Massachusetts

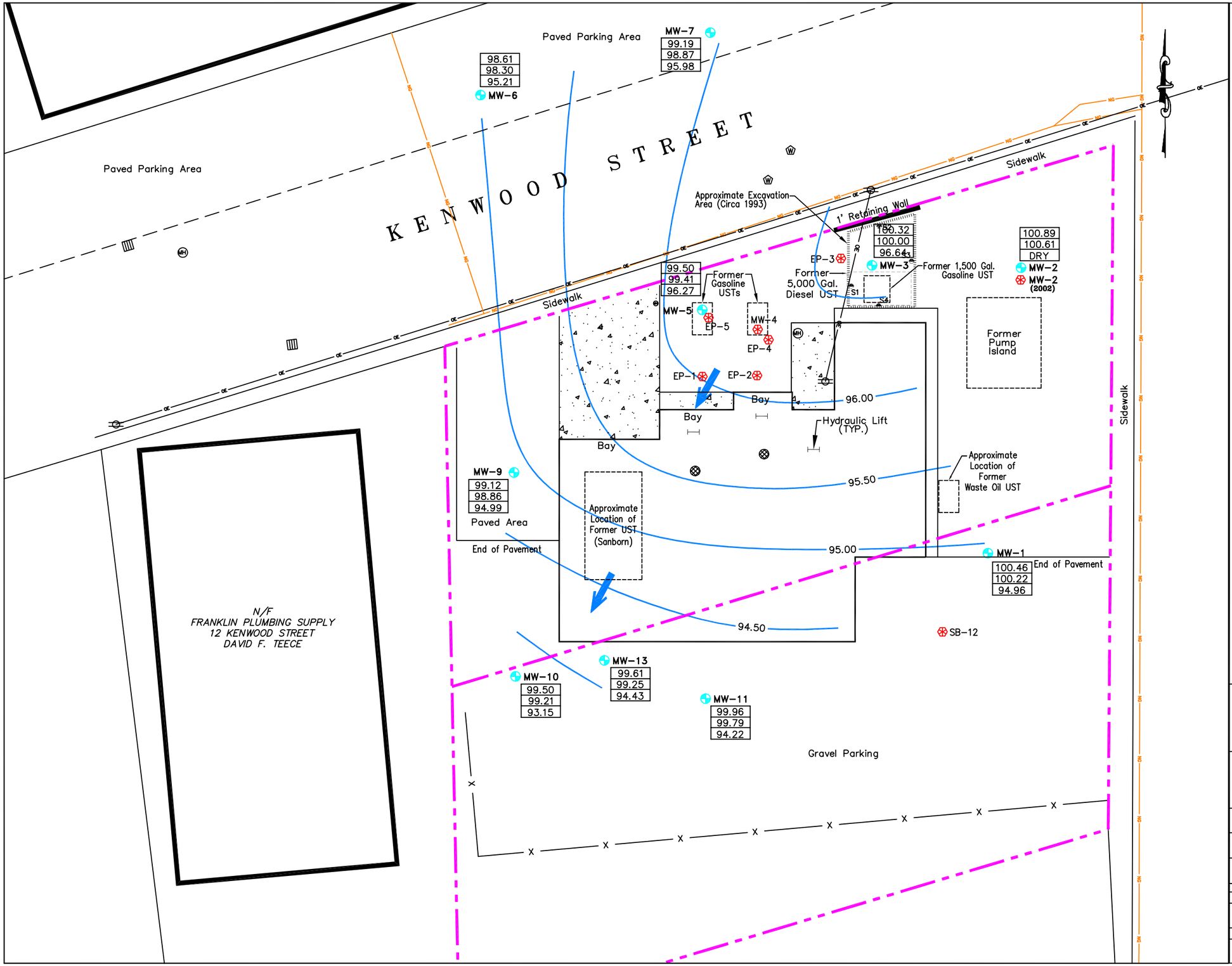
TITLE:
Site Plan with Abutting Properties

CLIENT:
Goly's Garage, Inc.

GRAPHIC SCALE: 40 20 0 20 40

COMPUTER CADFILE : 14685SP.DWG

DRAWN BY:	DESIGNED BY:	CHECKED BY:	APPROVED BY:
RRW		LAG	LAG
SCALE:	DATE:	JOB NO.:	FIGURE NO.:
1" = 40'	Feb. 2010	14685	2



Legend

- Approximate Property Line
- SS — Sanitary Sewer Line
- SW — Storm Sewer Line
- W — Water Line
- NG — Natural Gas Line
- OE — Overhead Electric Line
- MH — Manhole
- Catchbasin
- Water Gate
- Fire Hydrant
- Utility Pole
- Soil Sample
- Soil Boring
- Monitoring Well
- MW-1 — Well I.D.
- 100.46 — Rim Elevation
- 100.22 — PVC Elevation
- 94.96 — Water Table Elevation
- 90.0 — Water Table Contour (Dashed where inferred)
- Flow Direction Indicator

General Notes:

All locations, dimensions, and property lines depicted on this plan are approximate. This plan should not be used for construction or land conveyance purposes.

Horizontal, and vertical locations of wells, and selected site features determined through measurements made by representatives of ECS.

Water table elevation are based on an assumed benchmark of 100.00 feet located on the PVC of monitoring well MW-3.

Water table elevations are based on measurements made on May 31, 2007.

Water table contours, and flow directions assume homogenous, isotropic aquifer conditions, and horizontal flow.

Fluctuations in the level of the water table may occur due to factors not accounted for at the time of measurement.

Water table contours are interpolated between data points, and inferred in other areas.

ecs
588 Silver Street * Agawam, MA 01001
Phone: 1-800-789-3530 Fax: 413-789-2776

PROJECT:
Goly's Garage
286 Federal Street
Greenfield, Massachusetts

TITLE:
Site Plan with Groundwater Contours (5/31/07)

CLIENT:
Goly's Garage, Inc.

GRAPHIC SCALE: 20 10 0 10 20

COMPUTER CADFILE : 14685SP.DWG

DRAWN BY:	DESIGNED BY:	CHECKED BY:	APPROVED BY:
RRW		LAG	LAG
SCALE:	**DATE:**	**JOB NO.:**	**FIGURE NO.:**
1" = 20'	Feb. 2010	14685	3

APPENDIX C
BORING LOGS

O'REILLY, TALBOT & OKUN ASSOCIATES, INC.

ENVIRONMENTAL AND GEOTECHNICAL ENGINEERING CONSULTANTS

LOG OF BORING LS-1

PROJECT : Lunt Silversmith			LOCATION:	Greenfield, MA	PROJECT NO. : 1753-03-01
DRILLING CONTRACTOR Seaboard Environmental Drilling	FOREMAN Mike HELPER Doug		DATE STARTED	01/11/2012	DATE FINISHED 01/11/2012
DRILLING EQUIPMENT Geoprobe			COMPLETION DEPTH	8'	GROUND SURFACE ELEV. DATUM
TYPE BIT	SIZE &TYPE OF CORE BARREL		No. Samples	2	UNDIST.
CASING	Rod		TIME		FIRST / COMPL. / HR.
CASING HAMM.	WEIGHT	DROP	WATER LEVEL (FT.)		2.5'
SAMPLER:			BORING	Western baseball diamond, southeast corner of site	
SAMPLER HAMMER	WEIGHT	DROP	LOCATION	N42° 36.104' W72° 35.970'	
			ENGINEER/GEOLOGIST	Brin Warenda	

SAMPLES	DEPTH FT.	SAMPLES: PENETR. RESIST. BL/6 IN.	SAMPLES: REC. IN.	SAMPLES: TYPE/ NO.	DESCRIPTION	FIELD MEASUREMENTS	SOIL DESCRIPTION	REMARKS
			42/48	S-1	Top 6": Topsoil, brown, fine SAND and SILT (frost)		TOPSOIL	
				0-4'	Middle 14": Brown, fine SAND and SILT, little medium sand, moist	0.0 (0-2')	FILL	
					Bottom 22": Grey, fine to medium SAND, some silt, wet at 2.5'		2'	
						0.0 (2-4')	SAND AND SILT	
	5		38/48	S-2	Grey, fine to medium SAND, some silt, little clay, wet			
				4-8'		0.0 (4-6')		
						0.0 (6-8')	8'	
	10				End of Exploration at 8'			
	15							
	20							
	25							

Remarks:

1. Soil screened in field using TEI Model 580B photoionization detector (PID) with 11.7eV lamp eferenced to benzene in air. Readings in parts per million by volume. "ND" indicates none detected

O'REILLY, TALBOT & OKUN ASSOCIATES, INC.

ENVIRONMENTAL AND GEOTECHNICAL ENGINEERING CONSULTANTS

LOG OF BORING LS-2

PROJECT : Lunt Silversmith			LOCATION:	Greenfield, MA	PROJECT NO. : 1753-03-01
DRILLING CONTRACTOR Seaboard Environmental Drilling	FOREMAN Mike HELPER Doug		DATE STARTED	01/11/2012	DATE FINISHED 01/11/2012
DRILLING EQUIPMENT Geoprobe			COMPLETION DEPTH	8'	GROUND SURFACE ELEV. DATUM
TYPE BIT	SIZE &TYPE OF CORE BARREL		No. Samples	2	UNDIST.
CASING	Rod		TIME		FIRST / COMPL. / HR.
CASING HAMM.	WEIGHT	DROP	WATER LEVEL (FT.)		4'
SAMPLER:			BORING	Center baseball diamond, northcentral of fields	
SAMPLER HAMMER	WEIGHT	DROP	LOCATION	N42° 36.120' W72° 35.880'	
			ENGINEER/GEOLOGIST	Brin Warenda	

SAMPLES	DEPTH FT.	SAMPLES: PENETR. RESIST. BL/6 IN.	SAMPLES: REC. IN.	SAMPLES: TYPE/ NO.	DESCRIPTION	FIELD MEASUREMENTS	SOIL DESCRIPTION	REMARKS
			44/48	S-1	Top 8": Topsoil, brown, fine to medium SAND and SILT (frost)		TOPSOIL	
				0-4'	Middle 12": Brown, fine SAND and SILT, some medium sand, trace coarse sand	0.0 (0-2')	FILL	
					Bottom 24": Light brown, fine to medium SAND, little silt, moist		2'	
						0.0 (2-4')	SAND	
	5		40/48	S-2	Brown, fine to medium SAND, little silt, wet			
				4-8'		0.0 (4-6')		
						0.0 (6-8')	8'	
					End of Exploration at 8'			
	10							
	15							
	20							
	25							

Remarks:

1. Soil screened in field using TEI Model 580B photoionization detector (PID) with 11.7eV lamp eferenced to benzene in air. Readings in parts per million by volume. "ND" indicates none detected

O'REILLY, TALBOT & OKUN ASSOCIATES, INC.

ENVIRONMENTAL AND GEOTECHNICAL ENGINEERING CONSULTANTS

LOG OF BORING LS-3

PROJECT : Lunt Silversmith			LOCATION:	Greenfield, MA	PROJECT NO. :	1753-03-01	
DRILLING CONTRACTOR	FOREMAN Mike		DATE STARTED	01/11/2012	DATE FINISHED	01/11/2012	
Seaboard Environmental Drilling	HELPER Doug						
DRILLING EQUIPMENT			COMPLETION DEPTH		GROUND SURFACE ELEV.		
Geoprobe				8'	DATUM		
TYPE BIT	SIZE &TYPE OF CORE BARREL		No. Samples	2		UNDIST.	
CASING	Rod		TIME		FIRST	COMPL.	HR.
CASING HAMM.	WEIGHT	DROP	WATER LEVEL (FT.)		4'		
SAMPLER:			BORING	Center baseball diamond, first base side bull pen			
SAMPLER	WEIGHT	DROP	LOCATION	N42° 36.110' W72° 35.868'			
HAMMER			ENGINEER/GEOLOGIST	Brin Warenda			

SAMPLES	DEPTH FT.	SAMPLES: PENETR. RESIST. BL/6 IN.	SAMPLES: REC. IN.	SAMPLES: TYPE/ NO.	DESCRIPTION	FIELD MEASUREMENTS	SOIL DESCRIPTION	REMARKS
			46/48	S-1 0-4'	Top 12": Topsoil, brown, fine SAND and SILT, little medium sand (frost)	0.0	TOPSOIL 1'	
					Middle 12": Brown, fine SAND and SILT, dry	(0-2')	FILL 2'	
					Bottom 22": Grey, fine SAND and SILT, dry		SAND AND SILT	
						0.0 (2-4')		
	5		42/48	S-2 4-8'	Brown to grey, fine SAND and SILT, trace medium sand, wet at 4'	0.0 (4-6')		
						0.0 (6-8')	8'	
	10				End of Exploration at 8'			
	15							
	20							
	25							

Remarks:

1. Soil screened in field using TEI Model 580B photoionization detector (PID) with 11.7eV lamp eferenced to benzene in air. Readings in parts per million by volume. "ND" indicates none detected

O'REILLY, TALBOT & OKUN ASSOCIATES, INC.

ENVIRONMENTAL AND GEOTECHNICAL ENGINEERING CONSULTANTS

LOG OF BORING LS-4

PROJECT : Lunt Silversmith			LOCATION:	Greenfield, MA	PROJECT NO. : 1753-03-01
DRILLING CONTRACTOR Seaboard Environmental Drilling	FOREMAN Mike HELPER Doug		DATE STARTED	01/11/2012	DATE FINISHED 01/11/2012
DRILLING EQUIPMENT Geoprobe			COMPLETION DEPTH	8'	GROUND SURFACE ELEV. DATUM
TYPE BIT	SIZE &TYPE OF CORE BARREL		No. Samples	2	UNDIST.
CASING	Rod		TIME		FIRST / COMPL. / HR.
CASING HAMM.	WEIGHT	DROP	WATER LEVEL (FT.)		3.5'
SAMPLER:			BORING	Center baseball diamond, behind backstop	
SAMPLER HAMMER	WEIGHT	DROP	LOCATION	N42° 36.080' W72° 35.886'	
			ENGINEER/GEOLOGIST	Brin Warenda	

SAMPLES	DEPTH FT.	SAMPLES: PENETR. RESIST. BL/6 IN.	SAMPLES: REC. IN.	SAMPLES: TYPE/ NO.	DESCRIPTION	FIELD MEASUREMENTS	SOIL DESCRIPTION	REMARKS
			44/48	S-1	Top 12": Topsoil, brown, fine SAND and SILT, trace medium		TOPSOIL	
				0-4'	sand (frost)	0.0	1'	
					Middle 16": Brown, fine to medium SAND, some silt, trace gravel, dry	(0-2')	FILL	
					Bottom 16": Brown-grey, fine to medium SAND, little silt,		2.5'	
					wet at 3.5'	0.0	SAND AND	
						(2-4')	SILT	
			40/48	S-2	Grey, fine SAND and SILT, trace clay, wet			
	5			4-8'		0.0		
						(4-6')		
						0.0		
						(6-8')		
							8'	
					End of Exploration at 8'			
	10							
	15							
	20							
	25							

Remarks:

1. Soil screened in field using TEI Model 580B photoionization detector (PID) with 11.7eV lamp eferenced to benzene in air. Readings in parts per million by volume. "ND" indicates none detected

O'REILLY, TALBOT & OKUN ASSOCIATES, INC.

ENVIRONMENTAL AND GEOTECHNICAL ENGINEERING CONSULTANTS

LOG OF BORING LS-5

PROJECT : Lunt Silversmith			LOCATION:	Greenfield, MA	PROJECT NO. : 1753-03-01
DRILLING CONTRACTOR Seaboard Environmental Drilling	FOREMAN Mike HELPER Doug		DATE STARTED	01/11/2012	DATE FINISHED 01/11/2012
DRILLING EQUIPMENT Geoprobe			COMPLETION DEPTH	8'	GROUND SURFACE ELEV. DATUM
TYPE BIT	SIZE &TYPE OF CORE BARREL		No. Samples	2	UNDIST.
CASING	Rod		TIME		FIRST / COMPL. / HR.
CASING HAMM.	WEIGHT	DROP	WATER LEVEL (FT.)		4'
SAMPLER:			BORING	Center baseball diamond, right center field	
SAMPLER HAMMER	WEIGHT	DROP	LOCATION	N42° 36.104' W72° 35.882'	
			ENGINEER/GEOLOGIST	Brin Warenda	

SAMPLES	DEPTH FT.	SAMPLES: PENETR. RESIST. BL/6 IN.	SAMPLES: REC. IN.	SAMPLES: TYPE/ NO.	DESCRIPTION	FIELD MEASUREMENTS	SOIL DESCRIPTION	REMARKS
			44/48	S-1 0-4'	Top 12": Topsoil, brown, fine SAND and SILT, trace medium sand (frost) Middle 16": Brown, fine to medium SAND, some silt, moist Bottom 16": Grey, fine to medium SAND and SILT, moist	0.0 (0-2') 0.0 (2-4')	TOPSOIL 1' FILL 2.5' SAND AND SILT	
	5		48/48	S-2 4-8'	Top 30": Grey, fine to medium SAND and SILT, wet at 4' Bottom 18": Brown, fine to medium SAND and SILT, wet	0.0 (4-6') 0.0 (6-8')	8'	
					End of Exploration at 8'			
	10							
	15							
	20							
	25							

Remarks:

1. Soil screened in field using TEI Model 580B photoionization detector (PID) with 11.7eV lamp eferenced to benzene in air. Readings in parts per million by volume. "ND" indicates none detected

O'REILLY, TALBOT & OKUN ASSOCIATES, INC.

ENVIRONMENTAL AND GEOTECHNICAL ENGINEERING CONSULTANTS

LOG OF BORING LS-6

PROJECT : Lunt Silversmith			LOCATION:	Greenfield, MA	PROJECT NO. : 1753-03-01
DRILLING CONTRACTOR Seaboard Environmental Drilling	FOREMAN Mike HELPER Doug		DATE STARTED	01/11/2012	DATE FINISHED 01/11/2012
DRILLING EQUIPMENT Geoprobe			COMPLETION DEPTH	8'	GROUND SURFACE ELEV. DATUM
TYPE BIT	SIZE &TYPE OF CORE BARREL		No. Samples	2	UNDIST.
CASING	Rod		TIME		FIRST / COMPL. / HR.
CASING HAMM.	WEIGHT	DROP	WATER LEVEL (FT.)		4'
SAMPLER:			BORING	Eastern baseball diamond, adjacent to bleachers	
SAMPLER HAMMER	WEIGHT	DROP	LOCATION	N42° 36.076' W72° 35.800'	
			ENGINEER/GEOLOGIST	Brin Warenda	

SAMPLES	DEPTH FT.	SAMPLES: PENETR. RESIST. BL/6 IN.	SAMPLES: REC. IN.	SAMPLES: TYPE/ NO.	DESCRIPTION	FIELD MEASUREMENTS	SOIL DESCRIPTION	REMARKS
			44/48	S-1 0-4'	Top 12": Topsoil, brown, fine SAND and SILT, trace medium sand (frost)	0.0	TOPSOIL 1'	
					Bottom 32": Brown-grey, fine SAND and SILT, trace clay, moist	(0-2')	SAND AND SILT	
						0.0 (2-4')	4'	
	5		46/48	S-2 4-8'	Top 22": Brown-grey, fine SAND and SILT, trace clay, wet at 4'		SILTY CLAY	
					Bottom 24": Grey, silty clay, wet	0.0 (4-6')		
						0.0 (6-8')	8'	
					End of Exploration at 8'			
	10							
	15							
	20							
	25							

Remarks:

1. Soil screened in field using TEI Model 580B photoionization detector (PID) with 11.7eV lamp eferenced to benzene in air. Readings in parts per million by volume. "ND" indicates none detected

O'REILLY, TALBOT & OKUN ASSOCIATES, INC.

ENVIRONMENTAL AND GEOTECHNICAL ENGINEERING CONSULTANTS

LOG OF BORING LS-7

PROJECT : Lunt Silversmith			LOCATION:	Greenfield, MA	PROJECT NO. : 1753-03-01
DRILLING CONTRACTOR Seaboard Environmental Drilling	FOREMAN Mike HELPER Doug		DATE STARTED	01/11/2012	DATE FINISHED 01/11/2012
DRILLING EQUIPMENT Geoprobe			COMPLETION DEPTH	8'	GROUND SURFACE ELEV. DATUM
TYPE BIT	SIZE &TYPE OF CORE BARREL		No. Samples	2	UNDIST.
CASING	Rod		TIME		FIRST / COMPL. / HR.
CASING HAMM.	WEIGHT	DROP	WATER LEVEL (FT.)		4'
SAMPLER:			BORING	Western end of building, southwest corner	
SAMPLER HAMMER	WEIGHT	DROP	LOCATION	N42° 36.068' W72° 35.767'	
			ENGINEER/GEOLOGIST	Brin Warenda	

SAMPLES	DEPTH FT.	SAMPLES: PENETR. RESIST. BL/6 IN.	SAMPLES: REC. IN.	SAMPLES: TYPE/ NO.	DESCRIPTION	FIELD MEASUREMENTS	SOIL DESCRIPTION	REMARKS
			30/48	S-1	Top 4": Topsoil, brown, fine SAND and SILT, trace medium		TOPSOIL	
				0-4'	sand (frost)	2.4	FILL	
					Middle 12": Brown-black, fine to medium SAND, some ash, trace red rock, dry	(0-2')	2'	
					Bottom 14": Brown(iron stained), fine to medium SAND, trace coarse sand, moist	7.2	SAND AND SILT	
						(2-4')		
	5		40/48	S-2	Top 20": Brown, fine to medium SAND, trace silt, wet			
				4-8'	Bottom 20": Grey, fine SAND and SILT, some clay (iron staining), wet	1.3		
						(4-6')		
						0.8		
						(6-8')	8'	
					End of Exploration at 8'			
	10							
	15							
	20							
	25							

Remarks:

1. Soil screened in field using TEI Model 580B photoionization detector (PID) with 11.7eV lamp eferenced to benzene in air. Readings in parts per million by volume. "ND" indicates none detected

O'REILLY, TALBOT & OKUN ASSOCIATES, INC.

ENVIRONMENTAL AND GEOTECHNICAL ENGINEERING CONSULTANTS

LOG OF BORING LS-8

PROJECT : Lunt Silversmith			LOCATION:	Greenfield, MA	PROJECT NO. : 1753-03-01
DRILLING CONTRACTOR Seaboard Environmental Drilling	FOREMAN Mike HELPER Doug		DATE STARTED	01/11/2012	DATE FINISHED 01/11/2012
DRILLING EQUIPMENT Geoprobe			COMPLETION DEPTH	8'	GROUND SURFACE ELEV. DATUM
TYPE BIT	SIZE &TYPE OF CORE BARREL		No. Samples	2	UNDIST.
CASING	Rod		TIME		FIRST / COMPL. / HR.
CASING HAMM.	WEIGHT	DROP	WATER LEVEL (FT.)		4'
SAMPLER:			BORING	Western end of building, northwest corner	
SAMPLER HAMMER	WEIGHT	DROP	LOCATION	N42° 36.080' W72° 35.761'	
			ENGINEER/GEOLOGIST	Brin Warenda	

SAMPLES	DEPTH FT.	SAMPLES: PENETR. RESIST. BL/6 IN.	SAMPLES: REC. IN.	SAMPLES: TYPE/ NO.	DESCRIPTION	FIELD MEASUREMENTS	SOIL DESCRIPTION	REMARKS
			36/48	S-1	Top 4": Topsoil, brown, fine SAND and SILT (frost)		TOPSOIL	
				0-4'	Bottom 32": Brown, fine to medium SAND, little silt, trace fine gravel, moist	0.0 (0-2')	FILL	
						0.0 (2-4')		
	5		42/48	S-2	Top 12": Brown, fine to medium SAND, little silt, trace fine gravel, wet at 4'		5'	
				4-8'	Middle 12": Grey-black, SILTY CLAY, trace fine sand, wet (petroleum odor)	0.0 (4-6')	SAND AND SILT	
					Bottom 18": Grey-brown, fine SAND and SILT, little clay, wet	0.0 (6-8')		
							8'	
					End of Exploration at 8'			
	10							
	15							
	20							
	25							

Remarks:

1. Soil screened in field using TEI Model 580B photoionization detector (PID) with 11.7eV lamp eferenced to benzene in air. Readings in parts per million by volume. "ND" indicates none detected

O'REILLY, TALBOT & OKUN ASSOCIATES, INC.

ENVIRONMENTAL AND GEOTECHNICAL ENGINEERING CONSULTANTS

LOG OF BORING LS-9

PROJECT : Lunt Silversmith			LOCATION:	Greenfield, MA	PROJECT NO. : 1753-03-01
DRILLING CONTRACTOR Seaboard Environmental Drilling	FOREMAN Mike HELPER Doug		DATE STARTED	01/11/2012	DATE FINISHED 01/11/2012
DRILLING EQUIPMENT Geoprobe			COMPLETION DEPTH	8'	GROUND SURFACE ELEV. DATUM
TYPE BIT	SIZE &TYPE OF CORE BARREL		No. Samples	2	UNDIST.
CASING	Rod		TIME		FIRST / COMPL. / HR.
CASING HAMM.	WEIGHT	DROP	WATER LEVEL (FT.)		4.5'
SAMPLER:			BORING	Northwest portion of building, west corner	
SAMPLER HAMMER	WEIGHT	DROP	LOCATION	N42° 36.082' W72° 35.760'	
			ENGINEER/GEOLOGIST	Brin Warenda	

SAMPLES	DEPTH FT.	SAMPLES: PENETR. RESIST. BL/6 IN.	SAMPLES: REC. IN.	SAMPLES: TYPE/ NO.	DESCRIPTION	FIELD MEASUREMENTS	SOIL DESCRIPTION	REMARKS
			46/48	S-1 0-4'	Top 12": Topsoil, brown, fine SAND and SILT, trace fine gravel, dry	0.0	TOPSOIL 1'	
					Middle 16": Brown, fine to medium SAND, some silt, little medium sand, trace debris (brick), dry	(0-2')	FILL	
					Bottom 18": Brown, fine to medium SAND, some silt, moist	0.0 (2-4')	3' SAND AND SILT	
	5		40/48	S-2 4-8'	Top 14": Brown, fine to medium SAND, some silt, wet at 4.5'	4.3 (4-5')		
					Bottom 26": Brown-grey, fine SAND and SILT, little clay, wet	159.0 (5-6')		
						2.3 (6-8')	8'	
					End of Exploration at 8'			
	10							
	15							
	20							
	25							

Remarks:

1. Soil screened in field using TEI Model 580B photoionization detector (PID) with 11.7eV lamp eferenced to benzene in air. Readings in parts per million by volume. "ND" indicates none detected

O'REILLY, TALBOT & OKUN ASSOCIATES, INC.

ENVIRONMENTAL AND GEOTECHNICAL ENGINEERING CONSULTANTS

LOG OF BORING LS-10

PROJECT : Lunt Silversmith			LOCATION:	Greenfield, MA	PROJECT NO. : 1753-03-01
DRILLING CONTRACTOR Seaboard Environmental Drilling	FOREMAN Mike HELPER Doug		DATE STARTED	01/11/2012	DATE FINISHED 01/12/2012
DRILLING EQUIPMENT Geoprobe			COMPLETION DEPTH	8'	GROUND SURFACE ELEV. DATUM
TYPE BIT	SIZE &TYPE OF CORE BARREL		No. Samples	2	UNDIST.
CASING	Rod		TIME		FIRST / COMPL. / HR.
CASING HAMM.	WEIGHT	DROP	WATER LEVEL (FT.)		4'
SAMPLER:			BORING	Northwest portion of building, adjacent to AST fill line	
SAMPLER HAMMER	WEIGHT	DROP	LOCATION	N42° 36.080' W72° 35.755'	
			ENGINEER/GEOLOGIST	Brin Warenda	

SAMPLES	DEPTH FT.	SAMPLES: PENETR. RESIST. BL/6 IN.	SAMPLES: REC. IN.	SAMPLES: TYPE/ NO.	DESCRIPTION	FIELD MEASUREMENTS	SOIL DESCRIPTION	REMARKS
			35/48	S-1	Top 5": Topsoil, brown, fine SAND and SILT, dry		TOPSOIL	
				0-4'	Bottom 30": Brown, fine to medium SAND, some silt, little fine gravel, trace coarse sand, trace debris (brick), moist	0.0 (0-2')	FILL	1'
						0.0 (2-4')	4'	2'
	5		34/48	S-2	Top 14": Brown, fine to medium SAND, some silt, wet at 4'		SAND	
				4-8'	Bottom 20": Grey, fine SAND and SILT, trace clay, wet	0.0 (4-6')	5'	
							SAND AND SILT	
						0.0 (6-8')	8'	
					End of Exploration at 8'			
	10							12'
	15							
	20							
	25							

Remarks:

1. Soil screened in field using TEI Model 580B photoionization detector (PID) with 11.7eV lamp eferenced to benzene in air. Readings in parts per million by volume. "ND" indicates none detected
2. Well installed using B-53 Drill Rig with hollow stem augers on 1/12/12, straight drilled to 12'
3. 2" well screen from 12'-2', riser from 2'-grade, sand pack from 12'-1', bentonite from 1'-0.5', sand to grade, curb box cemented in place

O'REILLY, TALBOT & OKUN ASSOCIATES, INC.

ENVIRONMENTAL AND GEOTECHNICAL ENGINEERING CONSULTANTS

LOG OF BORING LS-11

PROJECT : Lunt Silversmith			LOCATION:	Greenfield, MA	PROJECT NO. : 1753-03-01
DRILLING CONTRACTOR Seaboard Environmental Drilling	FOREMAN Mike HELPER Doug		DATE STARTED	01/11/2012	DATE FINISHED 01/11/2012
DRILLING EQUIPMENT Geoprobe			COMPLETION DEPTH	8'	GROUND SURFACE ELEV. DATUM
TYPE BIT	SIZE &TYPE OF CORE BARREL		No. Samples	2	UNDIST.
CASING	Rod		TIME		FIRST / COMPL. / HR.
CASING HAMM.	WEIGHT	DROP	WATER LEVEL (FT.)		5'
SAMPLER:			BORING	Northwest portion of building, east corner	
SAMPLER HAMMER	WEIGHT	DROP	LOCATION	N42° 36.079' W72° 35.748'	
			ENGINEER/GEOLOGIST	Brin Warenda	

SAMPLES	DEPTH FT.	SAMPLES: PENETR. RESIST. BL/6 IN.	SAMPLES: REC. IN.	SAMPLES: TYPE/ NO.	DESCRIPTION	FIELD MEASUREMENTS	SOIL DESCRIPTION	REMARKS
			40/48	S-1	Top 5": Topsoil, brown, fine SAND and SILT, frost		TOPSOIL	
				0-4'	Middle 16": Brown-black, medium SAND, little debris(ash), trace fine sand, trace silt, dry	0.0 (0-2')	FILL	
					Bottom 19": Brown, fine to medium SAND, some silt, dry		2'	
						0.0 (2-4')	SAND AND SILT	
	5		45/48	S-2	Top 30": Brown, fine to medium SAND, some silt, wet at 5'			
				4-8'	Bottom 15": Brown-grey, fine SAND and SILT, wet	0.0 (4-6')		
						0.0 (6-8')		
					End of Exploration at 8'			
	10							
	15							
	20							
	25							

Remarks:

1. Soil screened in field using TEI Model 580B photoionization detector (PID) with 11.7eV lamp eferenced to benzene in air. Readings in parts per million by volume. "ND" indicates none detected

O'REILLY, TALBOT & OKUN ASSOCIATES, INC.

ENVIRONMENTAL AND GEOTECHNICAL ENGINEERING CONSULTANTS

LOG OF BORING LS-12

PROJECT : Lunt Silversmith			LOCATION:	Greenfield, MA	PROJECT NO. : 1753-03-01
DRILLING CONTRACTOR Seaboard Environmental Drilling	FOREMAN Mike HELPER Doug		DATE STARTED	01/11/2012	DATE FINISHED 01/11/2012
DRILLING EQUIPMENT Geoprobe			COMPLETION DEPTH	8'	GROUND SURFACE ELEV. DATUM
TYPE BIT	SIZE &TYPE OF CORE BARREL		No. Samples	2	UNDIST.
CASING	Rod		TIME		FIRST / COMPL. / HR.
CASING HAMM.	WEIGHT	DROP	WATER LEVEL (FT.)		3.5'
SAMPLER:			BORING	Northwest portion of building, northcentral portion of parking area	
SAMPLER HAMMER	WEIGHT	DROP	LOCATION	N42° 36.089' W72° 35.751'	
			ENGINEER/GEOLOGIST	Brin Warenda	

SAMPLES	DEPTH FT.	SAMPLES: PENETR. RESIST. BL/6 IN.	SAMPLES: REC. IN.	SAMPLES: TYPE/ NO.	DESCRIPTION	FIELD MEASUREMENTS	SOIL DESCRIPTION	REMARKS
			33/48	S-1	2" Asphalt		ASPHALT	
				0-4'	Top 23": Brown, fine to medium SAND, some fine gravel, trace silt	0.0	FILL	
					trace coarse sand, dry	(0-2')		
					Bottom 10": Brown, fine to medium sand, little silt, wet at 3.5'			
						0.0		
						(2-4')	4'	
			36/48	S-2	Top 18": Brown-grey, fine SAND and SILT, wet		SAND AND SILT	
	5			4-8'	Bottom 18": Grey, fine SAND and SILT, wet	0.0		
						(4-6')		
						0.0		
						(6-8')		
					End of Exploration at 8'			
	10							
	15							
	20							
	25							

Remarks:

1. Soil screened in field using TEI Model 580B photoionization detector (PID) with 11.7eV lamp eferenced to benzene in air. Readings in parts per million by volume. "ND" indicates none detected

O'REILLY, TALBOT & OKUN ASSOCIATES, INC.

ENVIRONMENTAL AND GEOTECHNICAL ENGINEERING CONSULTANTS

LOG OF BORING LS-13

PROJECT : Lunt Silversmith			LOCATION:	Greenfield, MA	PROJECT NO. : 1753-03-01
DRILLING CONTRACTOR Seaboard Environmental Drilling	FOREMAN Mike HELPER Doug		DATE STARTED	01/11/2012	DATE FINISHED 01/11/2012
DRILLING EQUIPMENT Geoprobe			COMPLETION DEPTH	8'	GROUND SURFACE ELEV. DATUM
TYPE BIT	SIZE &TYPE OF CORE BARREL		No. Samples	2	UNDIST.
CASING	Rod		TIME		FIRST / COMPL. / HR.
CASING HAMM.	WEIGHT	DROP	WATER LEVEL (FT.)		3'
SAMPLER:			BORING	Southwest corner of parking area	
SAMPLER HAMMER	WEIGHT	DROP	LOCATION	N42° 36.049' W72° 35.801'	
			ENGINEER/GEOLOGIST	Brin Warenda	

SAMPLES	DEPTH FT.	SAMPLES: PENETR. RESIST. BL/6 IN.	SAMPLES: REC. IN.	SAMPLES: TYPE/ NO.	DESCRIPTION	FIELD MEASUREMENTS	SOIL DESCRIPTION	REMARKS
			27/48	S-1	3" Asphalt		ASPHALT	
				0-4'	Top 12": Brown, fine to medium SAND, some fine gravel, trace silt	0.0	FILL	
					dry	(0-2')	1.5'	
					Bottom 12": Brown-grey, fine SAND and SILT, little clay, wet at 3'		SILTY CLAY	
						0.3		
						(2-4')		
			48/48	S-2	Grey, SILTY CLAY, wet			
	5			4-8'		4.1		
						(4-6')		
						0.0		
						(6-8')	8'	
					End of Exploration at 8'			
	10							
	15							
	20							
	25							

Remarks:

1. Soil screened in field using TEI Model 580B photoionization detector (PID) with 11.7eV lamp eferenced to benzene in air. Readings in parts per million by volume. "ND" indicates none detected

O'REILLY, TALBOT & OKUN ASSOCIATES, INC.

ENVIRONMENTAL AND GEOTECHNICAL ENGINEERING CONSULTANTS

LOG OF BORING LS-14

PROJECT : Lunt Silversmith			LOCATION:	Greenfield, MA	PROJECT NO. : 1753-03-01
DRILLING CONTRACTOR Seaboard Environmental Drilling	FOREMAN Mike HELPER Doug		DATE STARTED	01/11/2012	DATE FINISHED 01/11/2012
DRILLING EQUIPMENT Geoprobe			COMPLETION DEPTH	12'	GROUND SURFACE ELEV. DATUM
TYPE BIT	SIZE &TYPE OF CORE BARREL		No. Samples	3	UNDIST.
CASING	Rod		TIME		FIRST / COMPL. / HR.
CASING HAMM.	WEIGHT	DROP	WATER LEVEL (FT.)		4'
SAMPLER:			BORING	Western portion of building, southwest end	
SAMPLER HAMMER	WEIGHT	DROP	LOCATION	N42° 36.056' W72° 35.751'	
			ENGINEER/GEOLOGIST	Brin Warenda	

SAMPLES	DEPTH FT.	SAMPLES: PENETR. RESIST. BL/6 IN.	SAMPLES: REC. IN.	SAMPLES: TYPE/ NO.	DESCRIPTION	FIELD MEASUREMENTS	SOIL DESCRIPTION	REMARKS
			46/48	S-1 0-4'	Top 6": Topsoil, brown, fine SAND and SILT, dry Bottom 40": Brown, fine to medium SAND, some silt, trace coarse sand, wet at 4'	0.0 (0-2') 0.0 (2-4')	TOPSOIL SAND AND SILT	
	5		46/48	S-2 4-8'	Brown, fine to medium SAND, some silt, trace coarse sand, wet	1.2 (4-6') 53.1 (6-8')		
	10		46/48	S-3 8-12'	Top 14": Brown, fine to medium SAND, some silt, trace coarse sand, wet Bottom 32": Grey, CLAYEY SILT, trace fine sand, wet	50.1 (8-10') 11.2 (10-12')	9' CLAYEY SILT 12'	
					End of Exploration at 12'			
	15							
	20							
	25							

Remarks:

1. Soil screened in field using TEI Model 580B photoionization detector (PID) with 11.7eV lamp eferenced to benzene in air. Readings in parts per million by volume. "ND" indicates none detected

O'REILLY, TALBOT & OKUN ASSOCIATES, INC.

ENVIRONMENTAL AND GEOTECHNICAL ENGINEERING CONSULTANTS

LOG OF BORING LS-15

PROJECT : Lunt Silversmith			LOCATION:	Greenfield, MA	PROJECT NO. : 1753-03-01
DRILLING CONTRACTOR Seaboard Environmental Drilling	FOREMAN Mike HELPER Doug		DATE STARTED	01/11/2012	DATE FINISHED 01/11/2012
DRILLING EQUIPMENT Geoprobe			COMPLETION DEPTH	8'	GROUND SURFACE ELEV. DATUM
TYPE BIT	SIZE &TYPE OF CORE BARREL		No. Samples	2	UNDIST.
CASING	Rod		TIME		FIRST / COMPL. / HR.
CASING HAMM.	WEIGHT	DROP	WATER LEVEL (FT.)		5'
SAMPLER:			BORING	Western end of building, southwest end near transformer pad	
SAMPLER HAMMER	WEIGHT	DROP	LOCATION	N42° 36.053' W72° 35.744'	
			ENGINEER/GEOLOGIST	Brin Warenda	

SAMPLES	DEPTH FT.	SAMPLES: PENETR. RESIST. BL/6 IN.	SAMPLES: REC. IN.	SAMPLES: TYPE/ NO.	DESCRIPTION	FIELD MEASUREMENTS	SOIL DESCRIPTION	REMARKS
			48/48	S-1 0-4'	Top 6": Topsoil, brown, fine SAND and SILT, trace medium sand	0.0 (0-2')	TOPSOIL FILL	
					Bottom 42": Brown, fine to medium SAND, some silt, trace debris (brick), moist	0.0 (2-4')	4'	
	5		44/48	S-2 4-8'	Top 30": Brown, fine to medium SAND, some silt, wet at 5'		SAND AND SILT	
					Bottom 14": Grey, medium-coarse SAND, trace fine sand, trace silt, wet	0.0 (4-6')		
						0.0 (6-8')		
					End of Exploration at 8'			
	10							
	15							
	20							
	25							

Remarks:

1. Soil screened in field using TEI Model 580B photoionization detector (PID) with 11.7eV lamp eferenced to benzene in air. Readings in parts per million by volume. "ND" indicates none detected

O'REILLY, TALBOT & OKUN ASSOCIATES, INC.

ENVIRONMENTAL AND GEOTECHNICAL ENGINEERING CONSULTANTS

LOG OF BORING LS-16

PROJECT : Lunt Silversmith			LOCATION:	Greenfield, MA	PROJECT NO. : 1753-03-01
DRILLING CONTRACTOR Seaboard Environmental Drilling	FOREMAN Mike HELPER Doug		DATE STARTED	01/11/2012	DATE FINISHED 01/11/2012
DRILLING EQUIPMENT Geoprobe			COMPLETION DEPTH	8'	GROUND SURFACE ELEV. DATUM
TYPE BIT	SIZE &TYPE OF CORE BARREL		No. Samples	2	UNDIST.
CASING	Rod		TIME		FIRST / COMPL. / HR.
CASING HAMM.	WEIGHT	DROP	WATER LEVEL (FT.)		5'
SAMPLER:			BORING	Western portion of building, southeastern end inside gated area	
SAMPLER HAMMER	WEIGHT	DROP	LOCATION	N42° 36.050' W72° 35.734'	
			ENGINEER/GEOLOGIST	Brin Warenda	

SAMPLES	DEPTH FT.	SAMPLES: PENETR. RESIST. BL/6 IN.	SAMPLES: REC. IN.	SAMPLES: TYPE/ NO.	DESCRIPTION	FIELD MEASUREMENTS	SOIL DESCRIPTION	REMARKS
			36/48	S-1 0-4'	Top 6": Topsoil, brown, fine SAND and SILT, dry Bottom 30": Brown-grey, fine SAND and SILT, some medium sand, trace fine gravel, wet at 4'	0.0 (0-2') 0.0 (2-4')	TOPSOIL SAND AND SILT	
	5		42/48	S-2 4-8'	Top 28": Brown-grey, fine SAND and SILT, some medium sand, trace fine gravel, bottom 30" wet Bottom 14": Grey, fine-medium SAND, some silt, wet	0.0 (4-6') 0.0 (6-8')		
	10				End of Exploration at 8'			
	15							
	20							
	25							

Remarks:

1. Soil screened in field using TEI Model 580B photoionization detector (PID) with 11.7eV lamp eferenced to benzene in air. Readings in parts per million by volume. "ND" indicates none detected

O'REILLY, TALBOT & OKUN ASSOCIATES, INC.

ENVIRONMENTAL AND GEOTECHNICAL ENGINEERING CONSULTANTS

LOG OF BORING LS-17

PROJECT : Lunt Silversmith			LOCATION:	Greenfield, MA	PROJECT NO. : 1753-03-01
DRILLING CONTRACTOR Seaboard Environmental Drilling	FOREMAN Mike HELPER Doug		DATE STARTED	01/11/2012	DATE FINISHED 01/11/2012
DRILLING EQUIPMENT Geoprobe			COMPLETION DEPTH	12'	GROUND SURFACE ELEV. DATUM
TYPE BIT	SIZE &TYPE OF CORE BARREL		No. Samples	3	UNDIST.
CASING	Rod		TIME		FIRST / COMPL. / HR.
CASING HAMM.	WEIGHT	DROP	WATER LEVEL (FT.)		4'
SAMPLER:			BORING	Southeast corner of parking lot	
SAMPLER HAMMER	WEIGHT	DROP	LOCATION	N42° 36.040' W72° 35.759'	
			ENGINEER/GEOLOGIST	Brin Warenda	

SAMPLES	DEPTH FT.	SAMPLES: PENETR. RESIST. BL/6 IN.	SAMPLES: REC. IN.	SAMPLES: TYPE/ NO.	DESCRIPTION	FIELD MEASUREMENTS	SOIL DESCRIPTION	REMARKS
			34/48	S-1	2" Asphalt		ASPHALT	
				0-4'	Brown, fine to medium SAND, some fine gravel, trace silt, dry	0.8 (0-2')	FILL	
						8.0 (2-4')	4'	
	5		46/48	S-2	Top 6": Grey, fine to medium SAND, little silt, wet at 4'		CLAYEY SILT	
				4-8'	Bottom 40": Grey, CLAYEY SILT, trace fine sand, wet	14.7 (4-6')		
						24.4 (6-8')		
	10		48/48	S-3	Top 24": Grey, fine SAND and SILT, some gravel, wet			
				8-12'	Bottom 24": Grey, CLAYEY SILT, trace fine sand, wet	2.4 (8-10')		
						5.3 (10-12')	12'	
					End of Exploration at 12'			
	15							
	20							
	25							

Remarks:

1. Soil screened in field using TEI Model 580B photoionization detector (PID) with 11.7eV lamp eferenced to benzene in air. Readings in parts per million by volume. "ND" indicates none detected

O'REILLY, TALBOT & OKUN ASSOCIATES, INC.

ENVIRONMENTAL AND GEOTECHNICAL ENGINEERING CONSULTANTS

LOG OF BORING LS-18

PROJECT : Lunt Silversmith			LOCATION: Greenfield, MA	PROJECT NO. : 1753-03-01	
DRILLING CONTRACTOR Seaboard Environmental Drilling	FOREMAN Mike HELPER Doug		DATE STARTED 01/12/2012	DATE FINISHED 01/12/2012	
DRILLING EQUIPMENT B-53 Truck Mounted Rig			COMPLETION DEPTH 5'	GROUND SURFACE ELEV. DATUM	
TYPE BIT Hollow Stem Auger	SIZE &TYPE OF CORE BARREL		No. Samples 2	UNDIST.	
CASING	Rod		TIME	FIRST / COMPL. / HR.	
CASING HAMM.	WEIGHT	DROP	WATER LEVEL (FT.)	-	
SAMPLER: 2" O.D. Split Spoon			BORING LOCATION	Southeast portion of site, northeast corner of building visitor parking area N42° 36.034' W72° 35.677'	
SAMPLER HAMMER Safety	WEIGHT 140 lbs.	DROP 30" (Wire Line)	ENGINEER/GEOLOGIST Brin Warenda		

SAMPLES	DEPTH FT.	SAMPLES: PENETR. RESIST. BL/6 IN.	SAMPLES: REC. IN.	SAMPLES: TYPE/ NO.	DESCRIPTION	FIELD MEASUREMENTS	SOIL DESCRIPTION	REMARKS
					1" ASPHALT 8" BRICK		ASPHALT FILL	
X			12/24	S-1 1-3'	Brown-grey, fine SAND and SILT, moist	0.0	SAND AND SILT	
X		17/41/ 50 for 1"	14/24	S-2 3-5'	Top 12": Very dense, brown-grey, fine SAND and SILT, moist Bottom 2": Very dense, brown-red, fine SAND and SILT, some fine gravel, dry	0.0		
	5				Auger refusal at 5'			Off-set two times and could not advance past 3 feet. No well installed at this location due to shallow refusal.
	10							
	15							
	20							
	25							

Remarks:

1. Soil screened in field using TEI Model 580B photoionization detector (PID) with 11.7eV lamp eferenced to benzene in air. Readings in parts per million by volume. "ND" indicates none detected

O'REILLY, TALBOT & OKUN ASSOCIATES, INC.

ENVIRONMENTAL AND GEOTECHNICAL ENGINEERING CONSULTANTS

LOG OF BORING LS-19

PROJECT : Lunt Silversmith		LOCATION: Greenfield, MA	PROJECT NO. : 1753-03-01
DRILLING CONTRACTOR Seaboard Environmental Drilling	FOREMAN Mike HELPER Doug	DATE STARTED 01/12/2012	DATE FINISHED 01/12/2012
DRILLING EQUIPMENT B-53 Truck Mounted Rig		COMPLETION DEPTH 12'	GROUND SURFACE ELEV. DATUM
TYPE BIT Hollow Stem Auger	SIZE &TYPE OF CORE BARREL	No. Samples 5	UNDIST.
CASING	Rod	TIME	FIRST / COMPL. / HR.
CASING HAMM.	WEIGHT / DROP	WATER LEVEL (FT.)	4'
SAMPLER: 2" O.D. Split Spoon		BORING Southcentral of parking lot	
SAMPLER HAMMER Safety	WEIGHT 140 lbs. / DROP 30" (Wire Line)	LOCATION N42° 36.043' W72° 35.774'	
		ENGINEER/GEOLOGIST Brin Warenda	

SAMPLES	DEPTH FT.	SAMPLES: PENETR. RESIST. BL/6 IN.	SAMPLES: REC. IN.	SAMPLES: TYPE/ NO.	DESCRIPTION	FIELD MEASUREMENTS	SOIL DESCRIPTION	WELL CONSTRUCTION
					2" ASPHAL		ASPHALT	
					6" FROST LAYER		FILL	1'
			16/24	S-1	Top 4": Brown, fine SAND and SILT, some medium sand, dry	0.3		
				1-3'	Middle 6": Grey, fine GRAVEL, dry		2'	2'
					Bottom 4": Brown-grey, fine SAND and SILT, moist		SAND AND SILT	
			18/24	S-2	Brown-grey, fine SAND and SILT, wet at 4'	1.0		
				3-5'				
	5						5'	
			15/24	S-3	Grey, CLAYEY SILT, trace fine sand, wet	0.8	CLAYEY SILT	
				5-7'				
			16/24	S-4	Grey, CLAYEY SILT, trace fine sand, wet	54.8		
				7-9'				
			16/24	S-5	Grey, CLAYEY SILT, trace fine sand, wet	9.7		
	10			9-11'				
					End of Exploration at 12'			
	15							
	20							
	25							

Remarks:

1. Soil screened in field using TEI Model 580B photoionization detector (PID) with 11.7eV lamp eferenced to benzene in air. Readings in parts per million by volume. "ND" indicates none detected
2. 2" well screened from 12'-2', riser from 2'-grade, sand pack from 10'-1', bentonite seal from 1'-0.5', sand to grade, curb box cemented in place

O'REILLY, TALBOT & OKUN ASSOCIATES, INC.

ENVIRONMENTAL AND GEOTECHNICAL ENGINEERING CONSULTANTS

LOG OF BORING LS-20

PROJECT : Lunt Silversmith		LOCATION: Greenfield, MA	PROJECT NO. : 1753-03-01
DRILLING CONTRACTOR Seaboard Environmental Drilling	FOREMAN Mike HELPER Doug	DATE STARTED 01/12/2012	DATE FINISHED 01/12/2012
DRILLING EQUIPMENT B-53 Truck Mounted Rig		COMPLETION DEPTH 10'	GROUND SURFACE ELEV. DATUM
TYPE BIT Hollow Stem Auger	SIZE &TYPE OF CORE BARREL	No. Samples 4	UNDIST.
CASING	Rod	TIME	FIRST / COMPL. / HR.
CASING HAMM. WEIGHT	DROP	WATER LEVEL (FT.)	4.5'
SAMPLER: 2" O.D. Split Spoon		BORING LOCATION	Southcentral portion of building, in parking spaces
SAMPLER HAMMER Safety	WEIGHT 140 lbs. / DROP 30" (Wire Line)	ENGINEER/GEOLOGIST	Brin Warenda

SAMPLES	DEPTH FT.	SAMPLES: PENETR. RESIST. BL/6 IN.	SAMPLES: REC. IN.	SAMPLES: TYPE/ NO.	DESCRIPTION	FIELD MEASUREMENTS	SOIL DESCRIPTION	WELL CONSTRUCTION
					2" ASPHALT 4" FROST LAYER		ASPHALT	
		15/24/17/15	22/24	S-1 1-3'	Dense brown-black, fine SAND and SILT, some ash, trace debris (brick), dry	1.3	FILL 3'	1' 2'
		20/20/20/10	20/24	S-2 3-5'	Dense brown-grey, fine to medium SAND, some silt, moist- wet at 4.5'	0.0	SAND AND SILT 5'	
	5	7/1/1/1	20/24	S-3 5-7'	Very soft, grey, SILTY CLAY, wet	0.0	SILTY CLAY	
		24/50 for 5"	14/24	S-4 7-9'	Top 12": Grey, SILTY CLAY, wet Bottom 2": Brown-red, fine to medium SAND, some gravel, wet	0.0	9' BEDROCK	
	10				Auger refusal at 10'			
	15							
	20							
	25							

Remarks:

1. Soil screened in field using TEI Model 580B photoionization detector (PID) with 11.7eV lamp eferenced to benzene in air. Readings in parts per million by volume. "ND" indicates none detected
2. 2" well screened from 10'-2', riser from 2'-grade, sand pack from 10'-1', bentonite seal from 1'-0.5', sand to grade, curb box cemented in place

O'REILLY, TALBOT & OKUN ASSOCIATES, INC.

ENVIRONMENTAL AND GEOTECHNICAL ENGINEERING CONSULTANTS

LOG OF BORING LS-21

PROJECT: Lunt Silversmith			LOCATION Greenfield, MA	PROJECT NO. 1753-03-01	
DRILLING CONTRACTOR Seaboard Environmental Drilling	FOREMAN David HELPER Jeff		DATE STARTED 2/21/2012	DATE FINISHED 2/21/2012	
DRILLING EQUIPMENT Geoprobe 5340DT			COMPLETION DEPTH 12'	GROUND SURFACE ELEV. DATUM	
TYPE BIT	SIZE &TYPE OF CORE BARREL		No. of samples collected 3	UNDIST.	
CASING			TIME	FIRST	COMPL. HR.
CASING HAMM.	WEIGHT	DROP	WATER LEVEL (FT.)	5.5'	
SAMPLER:			BORING LOCATION Southeastern corner of fields		
SAMPLER HAMMER Split Spoon	WEIGHT	DROP	ENGINEER/GEOL Brin Thompson		

SAMPLES	DEPTH FT.	SAMPLES PENETR. RESIST. BL/6 IN.	SAMPLES REC. IN.	SAMPLES TYPE/ NO.	DESCRIPTION	FIELD MEASUREMENTS	SOIL DESCRIPTION	WELL CONSTRUCTION
			46/48	S-1 0'-4'	Top 12": Brown, fine to medium SAND and SILT, trace fine gravel, dry (TOPSOIL) Bottom 34": Brown to gray, fine SAND and SILT, dry	0.0 (0'-2') 0.0 (2'-4')	TOPSOIL 1' SAND AND SILT	1' 2'
	5		40/48	S-2 4'-8'	Top 36": Gray, fine SAND and SILT, wet at 5.5' Bottom 4": Gray, CLAYEY SILT, trace fine sand, wet	0.0 (4'-6') 0.0 (6'-8')	7.5' CLAYEY SILT	
	10		42/48	S-3 8'-12'	Gray, CLAYEY SILT, trace fine sand, wet	0.0 (8'-10') 0.0 (10'-12')		
	15				End of exploration at 12'			
	20							
	25							

Remarks:

1. Soil headspace screened in field using TEI model 580B photoionization detector (PID) referenced to benzene in air. Readings shown in parts per million (ppm)
2. 1" PVC well at 12' below ground surface, screen 12'-2', riser from 2' to ground surface. Sand pack 12'-1', bentonite clay seal 1'-0.5', sand to grade, curb box cemented in place

O'REILLY, TALBOT & OKUN ASSOCIATES, INC.

ENVIRONMENTAL AND GEOTECHNICAL ENGINEERING CONSULTANTS

LOG OF BORING LS-22

PROJECT: Lunt Silversmith		LOCATION Greenfield, MA	PROJECT NO. 1753-03-01
DRILLING CONTRACTOR Seaboard Environmental Drilling	FOREMAN David HELPER Jeff	DATE STARTED 2/21/2012	DATE FINISHED 2/21/2012
DRILLING EQUIPMENT Geoprobe 5340DT		COMPLETION DEPTH 12'	GROUND SURFACE ELEV. DATUM
TYPE BIT	SIZE &TYPE OF CORE BARREL	No. of samples collected 3	UNDIST.
CASING		TIME	FIRST / COMPL. / HR.
CASING HAMM.	WEIGHT / DROP	WATER LEVEL (FT.)	4'
SAMPLER:		BORING LOCATION South side of street, between 22 and 28 Kendall St.	
SAMPLER HAMMER Split Spoon	WEIGHT / DROP	ENGINEER/GEOL Brin Thompson	

SAMPLES	DEPTH FT.	SAMPLES: PENETR. RESIST. BL/6 IN.	SAMPLES: REC. IN.	SAMPLES: TYPE/ NO.	DESCRIPTION	FIELD MEASUREMENTS	SOIL DESCRIPTION	WELL CONSTRUCTION
			22/48	S-1 0'-4'	Top 4": Brown, fine SAND and SILT, dry (TOPSOIL) Bottom 18": Brown to gray, fine to medium SAND, some silt, moist	0.0 (0'-2') 0.0 (2'-4')	TOPSOIL FILL	1' 2'
	5		48/48	S-2 4'-8'	Top 12": Brown to gray, fine to medium SAND, some silt, wet at 4' Bottom 36": Gray, CLAYEY SILT, trace fine sand, wet	0.0 (4'-6') 0.0 (6'-8')	5' CLAYEY SILT	
	10		44/48	S-3 8'-12'	Gray, CLAYEY SILT, trace fine sand, wet	0.0 (8'-10') 0.0 (10'-12')		
	15				End of exploration at 12'			
	20							
	25							

Remarks:

1. Soil headspace screened in field using TEI model 580B photoionization detector (PID) referenced to benzene in air. Readings shown in parts per million (ppm)
2. 1" PVC well at 12' below ground surface, screen 12'-2', riser from 2' to ground surface. Sand pack 12'-1', bentonite clay seal 1'-0.5', sand to grade, curb box cemented in place

O'REILLY, TALBOT & OKUN ASSOCIATES, INC.

ENVIRONMENTAL AND GEOTECHNICAL ENGINEERING CONSULTANTS

LOG OF BORING LS-23

PROJECT: Lunt Silversmith			LOCATION Greenfield, MA	PROJECT NO. 1753-03-01	
DRILLING CONTRACTOR Seaboard Environmental Drilling	FOREMAN David HELPER Jeff		DATE STARTED 2/21/2012	DATE FINISHED 2/21/2012	
DRILLING EQUIPMENT Geoprobe 5340DT			COMPLETION DEPTH 12'	GROUND SURFACE ELEV. DATUM	
TYPE BIT	SIZE &TYPE OF CORE BARREL		No. of samples collected 3	UNDIST.	
CASING			TIME	FIRST / COMPL. / HR.	
CASING HAMM.	WEIGHT	DROP	WATER LEVEL (FT.)	4.5'	
SAMPLER:			BORING LOCATION South side of Kenwood St between #14 and Plumbing Supply		
SAMPLER HAMMER Split Spoon	WEIGHT	DROP	ENGINEER/GEOL Brin Thompson		

SAMPLES	DEPTH FT.	SAMPLES: PENETR. RESIST. BL/6 IN.	SAMPLES: REC. IN.	SAMPLES: TYPE/ NO.	DESCRIPTION	FIELD MEASUREMENTS	SOIL DESCRIPTION	WELL CONSTRUCTION
			40/48	S-1 0'-4'	Top 4": Brown, fine to medium SAND and SILT, dry (TOPSOIL) Next 6": CONCRETE Bottom 30": Brown, fine to medium SAND, little silt, moist	0.0 (0'-2') 0.0 (2'-4')	TOPSOIL FILL	1' 2'
	5		38/48	S-2 4'-8'	Top 6": Brown, fine to medium SAND, little silt, moist Bottom 32": Brown to gray, CLAYEY SILT, little fine sand, wet at 4.5'	0.0 (4'-6') 0.0 (6'-8')	4.5' CLAYEY SILT	
	10		30/48	S-3 8'-12'	Gray, CLAYEY SILT, little fine sand, wet	0.0 (8'-10') 0.0 (10'-12')		
	15				End of exploration at 12'			
	20							
	25							

Remarks:

1. Soil headspace screened in field using TEI model 580B photoionization detector (PID) referenced to benzene in air. Readings shown in parts per million (ppm)
2. 1" PVC well at 12' below ground surface, screen 12'-2', riser from 2' to ground surface. Sand pack 12'-1', bentonite clay seal 1'-0.5', sand to grade, curb box cemented in place

O'REILLY, TALBOT & OKUN ASSOCIATES, INC.

ENVIRONMENTAL AND GEOTECHNICAL ENGINEERING CONSULTANTS

LOG OF BORING LS-24

PROJECT: Lunt Silversmith		LOCATION Greenfield, MA	PROJECT NO. 1753-03-01
DRILLING CONTRACTOR Seaboard Environmental Drilling	FOREMAN David HELPER Jeff	DATE STARTED 2/21/2012	DATE FINISHED 2/21/2012
DRILLING EQUIPMENT Geoprobe 5340DT		COMPLETION DEPTH 12'	GROUND SURFACE ELEV. DATUM
TYPE BIT	SIZE &TYPE OF CORE BARREL	No. of samples collected 3	UNDIST.
CASING		TIME	FIRST / COMPL. / HR.
CASING HAMM. WEIGHT DROP		WATER LEVEL (FT.)	6'
SAMPLER:		BORING LOCATION Gated area, under former dumpster area, west of building	
SAMPLER HAMMER Split Spoon WEIGHT DROP		ENGINEER/GEOL Brin Thompson	

SAMPLES	DEPTH FT.	SAMPLES: PENETR. RESIST. BL/6 IN.	SAMPLES: REC. IN.	SAMPLES: TYPE/ NO.	DESCRIPTION	FIELD MEASUREMENTS	SOIL DESCRIPTION	WELL CONSTRUCTION
			24/48	S-1 0'-4'	Brown, fine to medium SAND and SILT, trace fine gravel, moist	24.1 (0'-4')	FILL	1' / 2'
	5		36/48	S-2 4'-8'	Top 18": Brown, fine to medium SAND and SILT, trace fine gravel, moist Bottom 18": Brown, fine to medium SAND, some silt, wet at 6'	31.9 (4'-6') 54.6 (6'-8')	4.5' SAND AND SILT	
	10			S-3 8'-12'	Top 24": Brown, fine to medium SAND, some silt, wet Bottom 24": Gray, CLAYEY SILT, trace fine sand, wet	17.9 (8'-10') 1.2 (10'-12')	10' CLAYEY SILT	
	15				End of exploration at 12'			
	20							
	25							

Remarks:

1. Soil headspace screened in field using TEI model 580B photoionization detector (PID) referenced to benzene in air. Readings shown in parts per million (ppm)
2. 1" PVC well at 12' below ground surface, screen 12'-2', riser from 2' to ground surface. Sand pack 12'-1', bentonite clay seal 1'-0.5', sand to grade, curb box cemented in place

O'REILLY, TALBOT & OKUN ASSOCIATES, INC.

ENVIRONMENTAL AND GEOTECHNICAL ENGINEERING CONSULTANTS

LOG OF BORING LS-27

PROJECT: Lunt Silversmith		LOCATION Greenfield, MA	PROJECT NO. 1753-03-01
DRILLING CONTRACTOR Seaboard Environmental Drilling	FOREMAN David HELPER Jeff	DATE STARTED 2/21/2012	DATE FINISHED 2/21/2012
DRILLING EQUIPMENT Geoprobe 5340DT		COMPLETION DEPTH 12'	GROUND SURFACE ELEV. DATUM
TYPE BIT	SIZE &TYPE OF CORE BARREL	No. of samples collected 3	UNDIST.
CASING		TIME	FIRST / COMPL. / HR.
CASING HAMM. WEIGHT DROP		WATER LEVEL (FT.)	6.5'
SAMPLER:		BORING LOCATION Northwest side of building, south side of AST location	
SAMPLER HAMMER WEIGHT DROP		ENGINEER/GEOL Brin Thompson	

SAMPLES	DEPTH FT.	SAMPLES: PENETR. RESIST. BL/6 IN.	SAMPLES: REC. IN.	SAMPLES: TYPE/ NO.	DESCRIPTION	FIELD MEASUREMENTS	SOIL DESCRIPTION	REMARKS
			30/48	S-1 0'-4'	Brown, fine to medium SAND and SILT, trace(-) fine gravel, moist	10.7 (0'-2') 0.4 (2'-4')	FILL	
	5		30/48	S-2 4'-8'	Top 18": Brown, fine to medium SAND and SILT, trace (fine gravel, moist to wet at 6.5' Bottom 12": Gray, CLAYEY SILT, trace fine sand, wet	0.3 (4'-6') 0.4 (6'-8')	7' CLAYEY SILT	
	10		18/48	S-3 8'-12'	Gray, CLAYEY SILT, trace fine sand, wet	0.0 (8'-10') 0.0 (10'-12')		
	15				End of exploration at 12'			
	20							
	25							

Remarks:

1. Soil headspace screened in field using TEI model 580B photoionization detector (PID) referenced to benzene in air. Readings shown in parts per million (ppm)

O'REILLY, TALBOT & OKUN ASSOCIATES, INC.

ENVIRONMENTAL AND GEOTECHNICAL ENGINEERING CONSULTANTS

LOG OF BORING LS-29

PROJECT: Lunt Silversmith		LOCATION Greenfield, MA	PROJECT NO. 1753-03-01
DRILLING CONTRACTOR Seaboard Environmental Drilling	FOREMAN David HELPER Jeff	DATE STARTED 2/21/2012	DATE FINISHED 2/21/2012
DRILLING EQUIPMENT Shovel		COMPLETION DEPTH 2'	GROUND SURFACE ELEV. DATUM
TYPE BIT	SIZE &TYPE OF CORE BARREL	No. of samples collected 2	UNDIST.
CASING		TIME	FIRST / COMPL. / HR.
CASING HAMM. WEIGHT DROP		WATER LEVEL (FT.)	NE
SAMPLER:		BORING LOCATION Directly beneath two cyclones, south side of building	
SAMPLER HAMMER WEIGHT DROP		ENGINEER/GEOL Brin Thompson	

SAMPLES	DEPTH FT.	SAMPLES: PENETR. RESIST. BL/6 IN.	SAMPLES: REC. IN.	SAMPLES: TYPE/ NO.	DESCRIPTION	FIELD MEASUREMENTS	SOIL DESCRIPTION	REMARKS
				S-1 0'-1'	Dark brown, fine to medium sand, some silt, little coarse sand, dry	0.0	FILL	
				S-2 1'-2'	Brown, fine to medium sand, little silt, dry	0.0	2'	
	5				End exploration at 2'			
	10							
	15							
	20							
	25							

Remarks:

1. Soil headspace screened in field using TEI model 580B photoionization detector (PID) referenced to benzene in air. Readings shown in parts per million (ppm)

O'REILLY, TALBOT & OKUN ASSOCIATES, INC.

ENVIRONMENTAL AND GEOTECHNICAL ENGINEERING CONSULTANTS

LOG OF BORING LS-30

PROJECT: Lunt Silversmith			LOCATION Greenfield, MA	PROJECT NO. 1753-03-01	
DRILLING CONTRACTOR Seaboard Environmental Drilling	FOREMAN David HELPER Jeff		DATE STARTED 2/21/2012	DATE FINISHED 2/21/2012	
DRILLING EQUIPMENT Geoprobe 5340DT			COMPLETION DEPTH 12'	GROUND SURFACE ELEV. DATUM	
TYPE BIT	SIZE &TYPE OF CORE BARREL		No. of samples collected 3	UNDIST.	
CASING			TIME	FIRST	COMPL. HR.
CASING HAMM.	WEIGHT	DROP	WATER LEVEL (FT.)	6'	
SAMPLER:			BORING LOCATION Northeast side of property, near loading dock		
SAMPLER HAMMER Split Spoon	WEIGHT	DROP	ENGINEER/GEOL Brin Thompson		

SAMPLES	DEPTH FT.	SAMPLES PENETR. RESIST. BL/6 IN.	SAMPLES REC. IN.	SAMPLES TYPE/ NO.	DESCRIPTION	FIELD MEASUREMENTS	SOIL DESCRIPTION	REMARKS
			28/48	S-1 0'-4'	Brown, fine to medium SAND, some silt, little fine gravel, trace debris (brick), dry	0.0 (0'-2') 0.0 (2'-4')	FILL	
							4'	
							SAND AND SILT	
	5		14/48	S-2 4'-8'	Brown to gray, fine to medium SAND, some silt, wet at 6' (petroleum odor)	4.6 (4'-8')		
							8'	
							CLAYEY SILT	
	10		36/48	S-3 8'-12'	Gray, CLAYEY SILT, trace fine sand, wet	0.0 (8'-10') 0.0 (10'-12')		
					End of exploration at 12'			
	15							
	20							
	25							

Remarks:

1. Soil headspace screened in field using TEI model 580B photoionization detector (PID) referenced to benzene in air. Readings shown in parts per million (ppm)

APPENDIX D
LABORATORY REPORTS

Report Date:
26-Jan-12 17:14

☑ Final Report
☐ Re-Issued Report
☐ Revised Report

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

Laboratory Report

O'Reilly, Talbot & Okun
293 Bridge Street; Suite 500
Springfield, MA 01103
Attn: Val Tillinghast

Project: Lunt - MA
Project #: 1753-03-01

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
SB42546-01	LS-6 4-6'	Soil	11-Jan-12 10:45	16-Jan-12 14:50
SB42546-02	LS-7 2-4'	Soil	11-Jan-12 11:10	16-Jan-12 14:50
SB42546-03	LS-8 4-6'	Soil	11-Jan-12 11:45	16-Jan-12 14:50
SB42546-04	LS-9 5-6'	Soil	11-Jan-12 12:30	16-Jan-12 14:50
SB42546-05	LS-11 4-6'	Soil	11-Jan-12 12:55	16-Jan-12 14:50
SB42546-06	LS-14 0-2'	Soil	11-Jan-12 14:15	16-Jan-12 14:50
SB42546-07	LS-14 6-8'	Soil	11-Jan-12 14:30	16-Jan-12 14:50
SB42546-08	LS-15 0-2'	Soil	11-Jan-12 14:45	16-Jan-12 14:50
SB42546-09	LS-15 4-6'	Soil	11-Jan-12 14:55	16-Jan-12 14:50
SB42546-10	LS-17 6-8'	Soil	11-Jan-12 15:28	16-Jan-12 14:50
SB42546-11	LS-19 7-9'	Soil	12-Jan-12 13:00	16-Jan-12 14:50
SB42546-12	LS-20 1-3'	Soil	12-Jan-12 13:25	16-Jan-12 14:50

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

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

Authorized by:

Nicole Leja
Laboratory Director

Spectrum Analytical holds certification in the State of Massachusetts for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of Massachusetts does not offer certification for all analytes.
Please note that this report contains 72 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Spectrum Analytical, Inc.

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

The following outlines the condition of all VPH samples contained within this report upon laboratory receipt.

Matrices	Soil		
Containers	✓ Satisfactory		
Sample Preservative	**Aqueous** (acid preserved)	✓ N/A pH≤2 pH>2	
	Soil or Sediment	N/A ✓ Samples not received in Methanol	ml Methanol/g soil 1:1 +/-25% ✓ Other
		✓ Samples received in Methanol: ✓ covering soil/sediment not covering soil/sediment	
		✓ Samples received in air-tight container	
Temperature	✓ Received on ice	Received at 4 ± 2 ºC ✓ Other: 0.8ºC	

Were all QA/QC procedures followed as required by the VPH method? *Yes*
Were any significant modifications made to the VPH method as specified in section 11.3? *No*
Were all performance/acceptance standards for required QA/QC procedures achieved? *Yes*

The following outlines the condition of all EPH samples contained within this report upon laboratory receipt.

Matrices	Soil			
Containers	✓ Satisfactory			
Aqueous Preservative	✓ N/A	pH≤2	pH>2	pH adjusted to <2 in lab
Temperature	✓ Received on ice	Received at 4 ± 2 ºC	✓ Other: 0.8ºC	

Were all QA/QC procedures followed as required by the EPH method? *Yes*
Were any significant modifications made to the EPH method as specified in Section 11.3? *No*
Were all performance/acceptance standards for required QA/QC procedures achieved? *Yes*

I attest that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Authorized by:

Nicole Leja
Laboratory Director

MassDEP Analytical Protocol Certification Form

Laboratory Name: Spectrum Analytical, Inc.	**Project #:** 1753-03-01
Project Location: Lunt - MA	**RTN:**
This form provides certifications for the following data set:	SB42546-01 through SB42546-12
Matrices: Soil	

CAM Protocol

✓ 8260 VOC CAM II A	✓ 7470/7471 Hg CAM III B	✓ MassDEP VPH CAM IV A	8081 Pesticides CAM V B	7196 Hex Cr CAM VI B	MassDEP APH CAM IX A
8270 SVOC CAM II B	7010 Metals CAM III C	✓ MassDEP EPH CAM IV B	8151 Herbicides CAM V C	8330 Explosives CAM VIII A	TO-15 VOC CAM IX B
✓ 6010 Metals CAM III A	6020 Metals CAM III D	✓ 8082 PCB CAM V A	9012 Total Cyanide/PAC CAM VI A	9014 Total Cyanide/PAC CAM VI A	6860 Perchlorate CAM VIII B

Affirmative responses to questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain of Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	Yes ✓ No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	✓ Yes No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	✓ Yes No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	✓ Yes No
E	a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	✓ Yes No Yes No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to questions A through E)?	✓ Yes No

Responses to questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	Yes ✓ No

<u>Data User Note:</u> Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.

H	Were all QC performance standards specified in the CAM protocol(s) achieved?	Yes ✓ No
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	✓ Yes No

All negative responses are addressed in a case narrative on the cover page of this report.

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

Nicole Leja
Laboratory Director
Date: 1/26/2012

CASE NARRATIVE:

The samples were received 0.8 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/- 2.0 degrees Celsius was used immediately upon receipt of the samples.

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

MADEP has published a list of analytical methods (CAM) which provides a series of recommended protocols for the acquisition, analysis and reporting of analytical data in support of MCP decisions. "Presumptive Certainty" can be established only for those methods published by the MADEP in the MCP CAM. The compounds and/or elements reported were specifically requested by the client on the Chain of Custody and in some cases may not include the full analyte list as defined in the method. Regulatory limits may not be achieved if specific method and/or technique was not requested on the Chain of Custody.

According to WSC-CAM 5/2009 Rev.1, Table 11 A-1, recovery for some VOC analytes have been deemed potentially difficult. Although they may still be within the recommended recovery range, a range has been set based on historical control limits.

Some target analytes which are not listed as exceptions in the Summary of CAM Reporting Limits may exceed the recommended RL based on sample initial volume or weight provided, % moisture content, or responsiveness of a particular analyte to purge and trap instrumentation.

All VOC soils samples submitted and analyzed in methanol will have a minimum dilution factor of 50. This is the minimum amount of solvent allowed on the instrumentation without causing interference. Additional dilution factors may be required to keep analyte concentration within instrument calibration.

Method SW846 5035A is designed to use on samples containing low levels of VOCs, ranging from 0.5 to 200 ug/Kg. Target analytes that are less responsive to purge and trap may be present at concentrations over 200ug/Kg but may not be reportable in the methanol preserved vial (SW846 5030). This is the result of the inherent dilution factor required for the methanol preservation.

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

MADEP VPH 5/2004 Rev. 1.1

Calibration:

S110838-ICV1

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

n-Pentane (74%)

This affected the following samples:

1201825-BLK1
1201825-BS1
1201825-BSD1
S200957-CCV1
S200957-CCV2

Laboratory Control Samples:

1201825-BSD1

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

n-Decane

Samples:

SB42546-04 *LS-9 5-6'*

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

MADEP VPH 5/2004 Rev. 1.1

Samples:

SB42546-04 *LS-9 5-6'*

The VOC preserved soil sample is not within the 1:1 weight to volume ratio as recommended by SW846 methods 5030 and 5035 but may be within the 1:1 volume to volume ratio. This variance may affect the final reporting limit.

SB42546-07 *LS-14 6-8'*

The VOC preserved soil sample is not within the 1:1 weight to volume ratio as recommended by SW846 methods 5030 and 5035 but may be within the 1:1 volume to volume ratio. This variance may affect the final reporting limit.

SB42546-10 *LS-17 6-8'*

The VOC preserved soil sample is not within the 1:1 weight to volume ratio as recommended by SW846 methods 5030 and 5035 but may be within the 1:1 volume to volume ratio. This variance may affect the final reporting limit.

SB42546-11 *LS-19 7-9'*

The VOC preserved soil sample is not within the 1:1 weight to volume ratio as recommended by SW846 methods 5030 and 5035 but may be within the 1:1 volume to volume ratio. This variance may affect the final reporting limit.

SW846 6010C

Samples:

SB42546-12 *LS-20 1-3'*

The Reporting Limit has been raised to account for matrix interference.

Selenium

SW846 8260C

Calibration:

1201020

Analyte quantified by quadratic equation type calibration.

Naphthalene
trans-1,4-Dichloro-2-butene

This affected the following samples:

1201366-BLK1
1201366-BS1
1201366-BSD1
LS-14 6-8'
LS-17 6-8'
LS-19 7-9'
S200348-ICV1
S200779-CCV1

1201033

SW846 8260C

Calibration:

1201033

Analyte quantified by quadratic equation type calibration.

1,2-Dibromo-3-chloropropane
Bromodichloromethane
Bromoform
Carbon disulfide
Carbon tetrachloride
cis-1,3-Dichloropropene
Dibromochloromethane
trans-1,3-Dichloropropene

This affected the following samples:

S200714-ICV1

Laboratory Control Samples:

1201366 BS/BSD

4-Methyl-2-pentanone (MIBK) percent recoveries (131/134) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

LS-14 6-8'
LS-17 6-8'
LS-19 7-9'

Ethanol percent recoveries (131/123) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

LS-14 6-8'
LS-17 6-8'
LS-19 7-9'

1201627 BS/BSD

Chloromethane percent recoveries (105/133) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

LS-14 6-8'
LS-17 6-8'
LS-19 7-9'

1201751 BS/BSD

Chloromethane percent recoveries (109/140) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

LS-20 1-3'

Spikes:

1201627-MS1 *Source: SB42546-12*

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

2-Butanone (MEK)

The spike recovery was outside of QC acceptance limits for the MS, MSD and/or PS due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.

Trichloroethene

1201627-MSD1 *Source: SB42546-12*

SW846 8260C

Spikes:

1201627-MSD1 *Source: SB42546-12*

RPD out of acceptance range.

2-Butanone (MEK)

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

cis-1,2-Dichloroethene

The spike recovery was outside of QC acceptance limits for the MS, MSD and/or PS due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.

Trichloroethene

Samples:

S200847-CCV1

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

2,2-Dichloropropane (-20.6%)
Acetone (-20.9%)
Acrylonitrile (-21.1%)
Chloromethane (-23.9%)
Dichlorodifluoromethane (Freon12) (-25.4%)
Ethanol (-20.5%)
Tert-Butanol / butyl alcohol (-23.5%)
Tetrahydrofuran (-22.2%)

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

Carbon disulfide (-20.8%)
Tert-amyl methyl ether (-21.5%)

This affected the following samples:

1201627-BLK1
1201627-BS1
1201627-BSD1
1201627-MS1
1201627-MSD1
LS-14 6-8'
LS-17 6-8'
LS-19 7-9'

S200923-CCV1

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

1,1,1-Trichloroethane (20.3%)

This affected the following samples:

1201751-BLK1
1201751-BS1
1201751-BSD1
LS-20 1-3'

SB42546-07 *LS-14 6-8'*

The concentration indicated for this analyte is an estimated value. This value is considered an estimate (CLP E-flag).

Trichloroethene

SW846 8260C

Samples:

SB42546-07RE1 *LS-14 6-8'*

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

SB42546-10 *LS-17 6-8'*

The concentration indicated for this analyte is an estimated value. This value is considered an estimate (CLP E-flag).

Trichloroethene

SB42546-10RE1 *LS-17 6-8'*

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

SB42546-11 *LS-19 7-9'*

The concentration indicated for this analyte is an estimated value. This value is considered an estimate (CLP E-flag).

cis-1,2-Dichloroethene
Tetrachloroethene
Trichloroethene

SB42546-11RE1 *LS-19 7-9'*

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

SB42546-12RE1 *LS-20 1-3'*

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

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-6 4-6' SB42546-01	1753-03-01	Soil	11-Jan-12 10:45	16-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Extractable Petroleum Hydrocarbons													
EPH Aliphatic/Aromatic Ranges Prepared by method SW846 3545A													
	C9-C18 Aliphatic Hydrocarbons	< 12.6		mg/kg dry	12.6	1.86	1	MADEP EPH 5/2004 R	18-Jan-12	24-Jan-12	MP	1201380	
	C19-C36 Aliphatic Hydrocarbons	< 12.6		mg/kg dry	12.6	6.18	1	"	"	"	"	"	
	C11-C22 Aromatic Hydrocarbons	< 12.6		mg/kg dry	12.6	4.58	1	"	"	"	"	"	
	Unadjusted C11-C22 Aromatic Hydrocarbons	< 12.6		mg/kg dry	12.6	4.58	1	"	"	"	"	"	
	Total Petroleum Hydrocarbons	< 12.6		mg/kg dry	12.6	12.6	1	"	"	"	"	"	
	Unadjusted Total Petroleum Hydrocarbons	< 12.6		mg/kg dry	12.6	12.6	1	"	"	"	"	"	
EPH Target PAH Analytes Prepared by method SW846 3545A													
91-20-3	Naphthalene	< 0.421		mg/kg dry	0.421	0.220	1	"	"	"	"	"	
91-57-6	2-Methylnaphthalene	< 0.421		mg/kg dry	0.421	0.220	1	"	"	"	"	"	
208-96-8	Acenaphthylene	< 0.421		mg/kg dry	0.421	0.247	1	"	"	"	"	"	
83-32-9	Acenaphthene	< 0.421		mg/kg dry	0.421	0.246	1	"	"	"	"	"	
86-73-7	Fluorene	< 0.421		mg/kg dry	0.421	0.249	1	"	"	"	"	"	
85-01-8	Phenanthrene	< 0.421		mg/kg dry	0.421	0.287	1	"	"	"	"	"	
120-12-7	Anthracene	< 0.421		mg/kg dry	0.421	0.312	1	"	"	"	"	"	
206-44-0	Fluoranthene	< 0.421		mg/kg dry	0.421	0.282	1	"	"	"	"	"	
129-00-0	Pyrene	< 0.421		mg/kg dry	0.421	0.304	1	"	"	"	"	"	
56-55-3	Benzo (a) anthracene	< 0.421		mg/kg dry	0.421	0.305	1	"	"	"	"	"	
218-01-9	Chrysene	< 0.421		mg/kg dry	0.421	0.328	1	"	"	"	"	"	
205-99-2	Benzo (b) fluoranthene	< 0.421		mg/kg dry	0.421	0.375	1	"	"	"	"	"	
207-08-9	Benzo (k) fluoranthene	< 0.421		mg/kg dry	0.421	0.351	1	"	"	"	"	"	
50-32-8	Benzo (a) pyrene	< 0.421		mg/kg dry	0.421	0.283	1	"	"	"	"	"	
193-39-5	Indeno (1,2,3-cd) pyrene	< 0.421		mg/kg dry	0.421	0.374	1	"	"	"	"	"	
53-70-3	Dibenzo (a,h) anthracene	< 0.421		mg/kg dry	0.421	0.305	1	"	"	"	"	"	
191-24-2	Benzo (g,h,i) perylene	< 0.421		mg/kg dry	0.421	0.315	1	"	"	"	"	"	
Surrogate recoveries:													
3386-33-2	*1-Chlorooctadecane*	*43*			*40-140 %*			"	"	"	"	"	
84-15-1	*Ortho-Terphenyl*	*53*			*40-140 %*			"	"	"	"	"	
321-60-8	*2-Fluorobiphenyl*	*66*			*40-140 %*			"	"	"	"	"	
General Chemistry Parameters													
	% Solids	78.3		%			1	SM2540 G Mod.	17-Jan-12	17-Jan-12	DT	1201291	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-7 2-4'	1753-03-01	Soil	11-Jan-12 11:10	16-Jan-12
SB42546-02				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Extractable Petroleum Hydrocarbons													
EPH Aliphatic/Aromatic Ranges Prepared by method SW846 3545A													
	C9-C18 Aliphatic Hydrocarbons	< 11.5		mg/kg dry	11.5	1.69	1	MADEP EPH 5/2004 R	18-Jan-12	26-Jan-12	MWP	1201380	
	C19-C36 Aliphatic Hydrocarbons	< 11.5		mg/kg dry	11.5	5.61	1	"	"	"	"	"	
	C11-C22 Aromatic Hydrocarbons	< 11.5		mg/kg dry	11.5	4.15	1	"	"	"	"	"	
	Unadjusted C11-C22 Aromatic Hydrocarbons	< 11.5		mg/kg dry	11.5	4.15	1	"	"	"	"	"	
	Total Petroleum Hydrocarbons	< 11.5		mg/kg dry	11.5	11.5	1	"	"	"	"	"	
	Unadjusted Total Petroleum Hydrocarbons	< 11.5		mg/kg dry	11.5	11.5	1	"	"	"	"	"	
EPH Target PAH Analytes Prepared by method SW846 3545A													
91-20-3	Naphthalene	< 0.382		mg/kg dry	0.382	0.200	1	"	"	"	"	"	
91-57-6	2-Methylnaphthalene	< 0.382		mg/kg dry	0.382	0.200	1	"	"	"	"	"	
208-96-8	Acenaphthylene	< 0.382		mg/kg dry	0.382	0.224	1	"	"	"	"	"	
83-32-9	Acenaphthene	< 0.382		mg/kg dry	0.382	0.223	1	"	"	"	"	"	
86-73-7	Fluorene	< 0.382		mg/kg dry	0.382	0.226	1	"	"	"	"	"	
85-01-8	Phenanthrene	< 0.382		mg/kg dry	0.382	0.260	1	"	"	"	"	"	
120-12-7	Anthracene	< 0.382		mg/kg dry	0.382	0.283	1	"	"	"	"	"	
206-44-0	Fluoranthene	< 0.382		mg/kg dry	0.382	0.256	1	"	"	"	"	"	
129-00-0	Pyrene	< 0.382		mg/kg dry	0.382	0.276	1	"	"	"	"	"	
56-55-3	Benzo (a) anthracene	< 0.382		mg/kg dry	0.382	0.277	1	"	"	"	"	"	
218-01-9	Chrysene	< 0.382		mg/kg dry	0.382	0.297	1	"	"	"	"	"	
205-99-2	Benzo (b) fluoranthene	< 0.382		mg/kg dry	0.382	0.341	1	"	"	"	"	"	
207-08-9	Benzo (k) fluoranthene	< 0.382		mg/kg dry	0.382	0.319	1	"	"	"	"	"	
50-32-8	Benzo (a) pyrene	< 0.382		mg/kg dry	0.382	0.257	1	"	"	"	"	"	
193-39-5	Indeno (1,2,3-cd) pyrene	< 0.382		mg/kg dry	0.382	0.340	1	"	"	"	"	"	
53-70-3	Dibenzo (a,h) anthracene	< 0.382		mg/kg dry	0.382	0.277	1	"	"	"	"	"	
191-24-2	Benzo (g,h,i) perylene	< 0.382		mg/kg dry	0.382	0.286	1	"	"	"	"	"	
Surrogate recoveries:													
3386-33-2	*1-Chlorooctadecane*	*81*			*40-140 %*			"	"	"	"	"	
84-15-1	*Ortho-Terphenyl*	*42*			*40-140 %*			"	"	"	"	"	
321-60-8	*2-Fluorobiphenyl*	*47*			*40-140 %*			"	"	"	"	"	
General Chemistry Parameters													
	% Solids	**86.0**		%			1	SM2540 G Mod.	17-Jan-12	17-Jan-12	DT	1201291	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-8 4-6'	1753-03-01	Soil	11-Jan-12 11:45	16-Jan-12
SB42546-03				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Extractable Petroleum Hydrocarbons													
EPH Aliphatic/Aromatic Ranges Prepared by method SW846 3545A													
	C9-C18 Aliphatic Hydrocarbons	< 11.9		mg/kg dry	11.9	1.75	1	MADEP EPH 5/2004 R	18-Jan-12	24-Jan-12	MP	1201380	
	C19-C36 Aliphatic Hydrocarbons	< 11.9		mg/kg dry	11.9	5.84	1	"	"	"	"	"	
	C11-C22 Aromatic Hydrocarbons	< 11.9		mg/kg dry	11.9	4.32	1	"	"	"	"	"	
	Unadjusted C11-C22 Aromatic Hydrocarbons	< 11.9		mg/kg dry	11.9	4.32	1	"	"	"	"	"	
	Total Petroleum Hydrocarbons	< 11.9		mg/kg dry	11.9	11.9	1	"	"	"	"	"	
	Unadjusted Total Petroleum Hydrocarbons	< 11.9		mg/kg dry	11.9	11.9	1	"	"	"	"	"	
EPH Target PAH Analytes Prepared by method SW846 3545A													
91-20-3	Naphthalene	< 0.397		mg/kg dry	0.397	0.208	1	"	"	"	"	"	
91-57-6	2-Methylnaphthalene	< 0.397		mg/kg dry	0.397	0.208	1	"	"	"	"	"	
208-96-8	Acenaphthylene	< 0.397		mg/kg dry	0.397	0.233	1	"	"	"	"	"	
83-32-9	Acenaphthene	< 0.397		mg/kg dry	0.397	0.232	1	"	"	"	"	"	
86-73-7	Fluorene	< 0.397		mg/kg dry	0.397	0.235	1	"	"	"	"	"	
85-01-8	Phenanthrene	< 0.397		mg/kg dry	0.397	0.271	1	"	"	"	"	"	
120-12-7	Anthracene	< 0.397		mg/kg dry	0.397	0.295	1	"	"	"	"	"	
206-44-0	Fluoranthene	< 0.397		mg/kg dry	0.397	0.266	1	"	"	"	"	"	
129-00-0	Pyrene	< 0.397		mg/kg dry	0.397	0.287	1	"	"	"	"	"	
56-55-3	Benzo (a) anthracene	< 0.397		mg/kg dry	0.397	0.288	1	"	"	"	"	"	
218-01-9	Chrysene	< 0.397		mg/kg dry	0.397	0.309	1	"	"	"	"	"	
205-99-2	Benzo (b) fluoranthene	< 0.397		mg/kg dry	0.397	0.354	1	"	"	"	"	"	
207-08-9	Benzo (k) fluoranthene	< 0.397		mg/kg dry	0.397	0.331	1	"	"	"	"	"	
50-32-8	Benzo (a) pyrene	< 0.397		mg/kg dry	0.397	0.267	1	"	"	"	"	"	
193-39-5	Indeno (1,2,3-cd) pyrene	< 0.397		mg/kg dry	0.397	0.353	1	"	"	"	"	"	
53-70-3	Dibenzo (a,h) anthracene	< 0.397		mg/kg dry	0.397	0.288	1	"	"	"	"	"	
191-24-2	Benzo (g,h,i) perylene	< 0.397		mg/kg dry	0.397	0.298	1	"	"	"	"	"	
Surrogate recoveries:													
3386-33-2	*1-Chlorooctadecane*	*49*			*40-140 %*			"	"	"	"	"	
84-15-1	*Ortho-Terphenyl*	*57*			*40-140 %*			"	"	"	"	"	
321-60-8	*2-Fluorobiphenyl*	*63*			*40-140 %*			"	"	"	"	"	
General Chemistry Parameters													
	% Solids	**82.7**		%			1	SM2540 G Mod.	17-Jan-12	17-Jan-12	DT	1201291	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-9 5-6' SB42546-04	1753-03-01	Soil	11-Jan-12 12:30	16-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
	VOC Extraction	**Field extracted**		N/A			1	VOC Soil Extraction	17-Jan-12	17-Jan-12	BD	1201301	
VPH Aliphatic/Aromatic Carbon Ranges			GS1, VC10										
Prepared by method VPH - EPA 5030B							Initial weight: 9.2 g						
	C5-C8 Aliphatic Hydrocarbons	**21.6**		mg/kg dry	7.22	0.678	200	MADEP VPH 5/2004 Rev. 1.1	24-Jan-12	25-Jan-12	mp	1201825	
	C9-C12 Aliphatic Hydrocarbons	**153**		mg/kg dry	2.41	0.351	200	"	"	"	"	"	
	C9-C10 Aromatic Hydrocarbons	**54.0**		mg/kg dry	2.41	0.0621	200	"	"	"	"	"	
	Unadjusted C5-C8 Aliphatic Hydrocarbons	**21.6**		mg/kg dry	7.22	0.554	200	"	"	"	"	"	
	Unadjusted C9-C12 Aliphatic Hydrocarbons	**207**		mg/kg dry	2.41	0.330	200	"	"	"	"	"	
VPH Target Analytes			GS1, VC10										
Prepared by method VPH - EPA 5030B							Initial weight: 9.2 g						
71-43-2	Benzene	< 0.5		mg/kg dry	0.5	0.1	200	"	"	"	"	"	
100-41-4	Ethylbenzene	< 0.5		mg/kg dry	0.5	0.1	200	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 0.5		mg/kg dry	0.5	0.08	200	"	"	"	"	"	
91-20-3	Naphthalene	< 0.5		mg/kg dry	0.5	0.09	200	"	"	"	"	"	
108-88-3	Toluene	< 0.5		mg/kg dry	0.5	0.1	200	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 1.0		mg/kg dry	1.0	0.3	200	"	"	"	"	"	
95-47-6	o-Xylene	< 0.5		mg/kg dry	0.5	0.1	200	"	"	"	"	"	
Surrogate recoveries:													
615-59-8	*2,5-Dibromotoluene (FID)*	*99*			*70-130 %*			"	"	"	"	"	
615-59-8	*2,5-Dibromotoluene (PID)*	*88*			*70-130 %*			"	"	"	"	"	
Extractable Petroleum Hydrocarbons													
EPH Aliphatic/Aromatic Ranges													
Prepared by method SW846 3545A													
	C9-C18 Aliphatic Hydrocarbons	**981**		mg/kg dry	12.6	1.85	1	MADEP EPH 5/2004 R	18-Jan-12	24-Jan-12	MP	1201380	
	C19-C36 Aliphatic Hydrocarbons	< 12.6		mg/kg dry	12.6	6.16	1	"	"	"	"	"	
	C11-C22 Aromatic Hydrocarbons	**104**		mg/kg dry	12.6	4.56	1	"	"	"	"	"	
	Unadjusted C11-C22 Aromatic Hydrocarbons	**104**		mg/kg dry	12.6	4.56	1	"	"	"	"	"	
	Total Petroleum Hydrocarbons	**1,090**		mg/kg dry	12.6	12.6	1	"	"	"	"	"	
	Unadjusted Total Petroleum Hydrocarbons	**1,090**		mg/kg dry	12.6	12.6	1	"	"	"	"	"	
EPH Target PAH Analytes													
Prepared by method SW846 3545A													
91-20-3	Naphthalene	< 0.419		mg/kg dry	0.419	0.219	1	"	"	"	"	"	
91-57-6	2-Methylnaphthalene	< 0.419		mg/kg dry	0.419	0.219	1	"	"	"	"	"	
208-96-8	Acenaphthylene	< 0.419		mg/kg dry	0.419	0.245	1	"	"	"	"	"	
83-32-9	Acenaphthene	< 0.419		mg/kg dry	0.419	0.245	1	"	"	"	"	"	
86-73-7	Fluorene	< 0.419		mg/kg dry	0.419	0.248	1	"	"	"	"	"	
85-01-8	Phenanthrene	< 0.419		mg/kg dry	0.419	0.285	1	"	"	"	"	"	
120-12-7	Anthracene	< 0.419		mg/kg dry	0.419	0.311	1	"	"	"	"	"	
206-44-0	Fluoranthene	< 0.419		mg/kg dry	0.419	0.281	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-9 5-6'	1753-03-01	Soil	11-Jan-12 12:30	16-Jan-12
SB42546-04				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Extractable Petroleum Hydrocarbons													
EPH Target PAH Analytes Prepared by method SW846 3545A													
129-00-0	Pyrene	< 0.419		mg/kg dry	0.419	0.302	1	MADEP EPH 5/2004 R	18-Jan-12	24-Jan-12	MP	1201380	
56-55-3	Benzo (a) anthracene	< 0.419		mg/kg dry	0.419	0.304	1	"	"	"	"	"	
218-01-9	Chrysene	< 0.419		mg/kg dry	0.419	0.326	1	"	"	"	"	"	
205-99-2	Benzo (b) fluoranthene	< 0.419		mg/kg dry	0.419	0.374	1	"	"	"	"	"	
207-08-9	Benzo (k) fluoranthene	< 0.419		mg/kg dry	0.419	0.349	1	"	"	"	"	"	
50-32-8	Benzo (a) pyrene	< 0.419		mg/kg dry	0.419	0.282	1	"	"	"	"	"	
193-39-5	Indeno (1,2,3-cd) pyrene	< 0.419		mg/kg dry	0.419	0.373	1	"	"	"	"	"	
53-70-3	Dibenzo (a,h) anthracene	< 0.419		mg/kg dry	0.419	0.304	1	"	"	"	"	"	
191-24-2	Benzo (g,h,i) perylene	< 0.419		mg/kg dry	0.419	0.314	1	"	"	"	"	"	
Surrogate recoveries:													
3386-33-2	*1-Chlorooctadecane*	*54*			*40-140 %*			"	"	"	"	"	
84-15-1	*Ortho-Terphenyl*	*53*			*40-140 %*			"	"	"	"	"	
321-60-8	*2-Fluorobiphenyl*	*61*			*40-140 %*			"	"	"	"	"	
General Chemistry Parameters													
	% Solids	**77.2**		%			1	SM2540 G Mod.	17-Jan-12	17-Jan-12	DT	1201291	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-11 4-6' SB42546-05	1753-03-01	Soil	11-Jan-12 12:55	16-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Extractable Petroleum Hydrocarbons													
EPH Aliphatic/Aromatic Ranges Prepared by method SW846 3545A													
	C9-C18 Aliphatic Hydrocarbons	< 11.8		mg/kg dry	11.8	1.74	1	MADEP EPH 5/2004 R	18-Jan-12	24-Jan-12	MP	1201380	
	C19-C36 Aliphatic Hydrocarbons	< 11.8		mg/kg dry	11.8	5.79	1	"	"	"	"	"	
	C11-C22 Aromatic Hydrocarbons	< 11.8		mg/kg dry	11.8	4.28	1	"	"	"	"	"	
	Unadjusted C11-C22 Aromatic Hydrocarbons	< 11.8		mg/kg dry	11.8	4.28	1	"	"	"	"	"	
	Total Petroleum Hydrocarbons	< 11.8		mg/kg dry	11.8	11.8	1	"	"	"	"	"	
	Unadjusted Total Petroleum Hydrocarbons	< 11.8		mg/kg dry	11.8	11.8	1	"	"	"	"	"	
EPH Target PAH Analytes Prepared by method SW846 3545A													
91-20-3	Naphthalene	< 0.394		mg/kg dry	0.394	0.206	1	"	"	"	"	"	
91-57-6	2-Methylnaphthalene	< 0.394		mg/kg dry	0.394	0.206	1	"	"	"	"	"	
208-96-8	Acenaphthylene	< 0.394		mg/kg dry	0.394	0.231	1	"	"	"	"	"	
83-32-9	Acenaphthene	< 0.394		mg/kg dry	0.394	0.230	1	"	"	"	"	"	
86-73-7	Fluorene	< 0.394		mg/kg dry	0.394	0.233	1	"	"	"	"	"	
85-01-8	Phenanthrene	< 0.394		mg/kg dry	0.394	0.268	1	"	"	"	"	"	
120-12-7	Anthracene	< 0.394		mg/kg dry	0.394	0.292	1	"	"	"	"	"	
206-44-0	Fluoranthene	< 0.394		mg/kg dry	0.394	0.264	1	"	"	"	"	"	
129-00-0	Pyrene	< 0.394		mg/kg dry	0.394	0.284	1	"	"	"	"	"	
56-55-3	Benzo (a) anthracene	< 0.394		mg/kg dry	0.394	0.285	1	"	"	"	"	"	
218-01-9	Chrysene	< 0.394		mg/kg dry	0.394	0.306	1	"	"	"	"	"	
205-99-2	Benzo (b) fluoranthene	< 0.394		mg/kg dry	0.394	0.351	1	"	"	"	"	"	
207-08-9	Benzo (k) fluoranthene	< 0.394		mg/kg dry	0.394	0.328	1	"	"	"	"	"	
50-32-8	Benzo (a) pyrene	< 0.394		mg/kg dry	0.394	0.265	1	"	"	"	"	"	
193-39-5	Indeno (1,2,3-cd) pyrene	< 0.394		mg/kg dry	0.394	0.350	1	"	"	"	"	"	
53-70-3	Dibenzo (a,h) anthracene	< 0.394		mg/kg dry	0.394	0.286	1	"	"	"	"	"	
191-24-2	Benzo (g,h,i) perylene	< 0.394		mg/kg dry	0.394	0.295	1	"	"	"	"	"	
Surrogate recoveries:													
3386-33-2	*1-Chlorooctadecane*	*68*			*40-140 %*			"	"	"	"	"	
84-15-1	*Ortho-Terphenyl*	*56*			*40-140 %*			"	"	"	"	"	
321-60-8	*2-Fluorobiphenyl*	*68*			*40-140 %*			"	"	"	"	"	
General Chemistry Parameters													
	% Solids	82.1		%			1	SM2540 G Mod.	17-Jan-12	17-Jan-12	DT	1201291	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-14 0-2'	1753-03-01	Soil	11-Jan-12 14:15	16-Jan-12
SB42546-06				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Semivolatile Organic Compounds by GC													
Polychlorinated Biphenyls Prepared by method SW846 3545A													
12674-11-2	Aroclor-1016	< 22.1		µg/kg dry	22.1	11.0	1	SW846 8082A	20-Jan-12	20-Jan-12	IMR	1201586	
11104-28-2	Aroclor-1221	< 22.1		µg/kg dry	22.1	19.9	1	"	"	"	"	"	
11141-16-5	Aroclor-1232	< 22.1		µg/kg dry	22.1	14.2	1	"	"	"	"	"	
53469-21-9	Aroclor-1242	< 22.1		µg/kg dry	22.1	13.0	1	"	"	"	"	"	
12672-29-6	Aroclor-1248	< 22.1		µg/kg dry	22.1	10.8	1	"	"	"	"	"	
11097-69-1	Aroclor-1254	< 22.1		µg/kg dry	22.1	16.2	1	"	"	"	"	"	
11096-82-5	Aroclor-1260	< 22.1		µg/kg dry	22.1	8.46	1	"	"	"	"	"	
37324-23-5	Aroclor-1262	< 22.1		µg/kg dry	22.1	20.6	1	"	"	"	"	"	
11100-14-4	Aroclor-1268	< 22.1		µg/kg dry	22.1	6.93	1	"	"	"	"	"	
Surrogate recoveries:													
10386-84-2	*4,4-DB-Octafluorobiphenyl (Sr)*	*60*			*30-150 %*			"	"	"	"	"	
10386-84-2	*4,4-DB-Octafluorobiphenyl (Sr) [2C]*	*70*			*30-150 %*			"	"	"	"	"	
2051-24-3	*Decachlorobiphenyl (Sr)*	*110*			*30-150 %*			"	"	"	"	"	
2051-24-3	*Decachlorobiphenyl (Sr) [2C]*	*95*			*30-150 %*			"	"	"	"	"	
Total Metals by EPA 6000/7000 Series Methods													
7440-22-4	Silver	**36.1**		mg/kg dry	1.46	0.225	1	SW846 6010C	19-Jan-12	20-Jan-12	EDT	1201419	
7429-90-5	Aluminum	**8,220**		mg/kg dry	4.86	0.681	1	"	"	"	"	"	
7440-38-2	Arsenic	**3.16**		mg/kg dry	1.46	0.234	1	"	"	"	"	"	
7440-39-3	Barium	**18.2**		mg/kg dry	0.973	0.235	1	"	"	22-Jan-12	"	"	
7440-41-7	Beryllium	< 0.486		mg/kg dry	0.486	0.156	1	"	"	"	"	"	
7440-70-2	Calcium	**323**		mg/kg dry	24.3	6.09	1	"	"	20-Jan-12	"	"	
7440-43-9	Cadmium	**1.26**		mg/kg dry	0.486	0.0537	1	"	"	"	"	"	
7440-48-4	Cobalt	**3.97**		mg/kg dry	0.973	0.108	1	"	"	"	"	"	
7440-47-3	Chromium	**13.0**		mg/kg dry	0.973	0.355	1	"	"	"	"	"	
7440-50-8	Copper	**85.1**		mg/kg dry	0.973	0.109	1	"	"	"	"	"	
7439-89-6	Iron	**14,400**		mg/kg dry	3.89	0.717	1	"	"	22-Jan-12	"	"	
7439-97-6	Mercury	**0.184**		mg/kg dry	0.0292	0.0060	1	SW846 7471B	24-Jan-12	24-Jan-12	AMT	1201420	
7440-09-7	Potassium	**422**		mg/kg dry	48.6	12.2	1	SW846 6010C	19-Jan-12	20-Jan-12	EDT	1201419	
7439-95-4	Magnesium	**1,960**		mg/kg dry	4.86	0.139	1	"	"	"	"	"	
7439-96-5	Manganese	**126**		mg/kg dry	0.973	0.0526	1	"	"	"	"	"	
7440-23-5	Sodium	**24.9**		mg/kg dry	24.3	3.08	1	"	"	"	"	"	
7440-02-0	Nickel	**77.8**		mg/kg dry	0.973	0.0670	1	"	"	"	"	"	
7439-92-1	Lead	**25.8**		mg/kg dry	1.46	0.173	1	"	"	"	"	"	
7440-36-0	Antimony	< 4.86		mg/kg dry	4.86	0.214	1	"	"	"	"	"	
7782-49-2	Selenium	< 1.46		mg/kg dry	1.46	0.216	1	"	"	"	"	"	
7440-28-0	Thallium	< 2.92		mg/kg dry	2.92	0.240	1	"	"	"	"	"	
7440-62-2	Vanadium	**17.7**		mg/kg dry	1.46	0.255	1	"	"	"	"	"	
7440-66-6	Zinc	**46.5**		mg/kg dry	0.973	0.211	1	"	"	"	"	"	
General Chemistry Parameters													
	% Solids	**90.4**		%			1	SM2540 G Mod.	17-Jan-12	17-Jan-12	DT	1201291	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-14 6-8' SB42546-07	1753-03-01	Soil	11-Jan-12 14:30	16-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
	VOC Extraction	**Field extracted**		N/A			1	VOC Soil Extraction	17-Jan-12	17-Jan-12	BD	1201301	
Volatile Organic Compounds													
Prepared by method SW846 5035A Soil (low level)							Initial weight: 5.2 g						
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 6.9		µg/kg dry	6.9	4.6	1	SW846 8260C	18-Jan-12	18-Jan-12	JRO	1201366	
67-64-1	Acetone	< 69.4		µg/kg dry	69.4	52.2	1	"	"	"	"	"	
107-13-1	Acrylonitrile	< 6.9		µg/kg dry	6.9	6.2	1	"	"	"	"	"	
71-43-2	Benzene	< 6.9		µg/kg dry	6.9	3.6	1	"	"	"	"	"	
108-86-1	Bromobenzene	< 6.9		µg/kg dry	6.9	4.4	1	"	"	"	"	"	
74-97-5	Bromochloromethane	< 6.9		µg/kg dry	6.9	2.3	1	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 6.9		µg/kg dry	6.9	2.6	1	"	"	"	"	"	
75-25-2	Bromoform	< 6.9		µg/kg dry	6.9	4.8	1	"	"	"	"	"	
74-83-9	Bromomethane	< 13.9		µg/kg dry	13.9	12.5	1	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	< 69.4		µg/kg dry	69.4	59.5	1	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 6.9		µg/kg dry	6.9	3.5	1	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 6.9		µg/kg dry	6.9	6.7	1	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 6.9		µg/kg dry	6.9	5.0	1	"	"	"	"	"	
75-15-0	Carbon disulfide	< 13.9		µg/kg dry	13.9	9.9	1	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 6.9		µg/kg dry	6.9	6.9	1	"	"	"	"	"	
108-90-7	Chlorobenzene	< 6.9		µg/kg dry	6.9	3.9	1	"	"	"	"	"	
75-00-3	Chloroethane	< 13.9		µg/kg dry	13.9	9.8	1	"	"	"	"	"	
67-66-3	Chloroform	< 6.9		µg/kg dry	6.9	3.4	1	"	"	"	"	"	
74-87-3	Chloromethane	< 13.9		µg/kg dry	13.9	3.5	1	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 6.9		µg/kg dry	6.9	4.2	1	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 6.9		µg/kg dry	6.9	6.2	1	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	< 13.9		µg/kg dry	13.9	13.1	1	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 6.9		µg/kg dry	6.9	3.3	1	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 6.9		µg/kg dry	6.9	4.3	1	"	"	"	"	"	
74-95-3	Dibromomethane	< 6.9		µg/kg dry	6.9	6.9	1	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 6.9		µg/kg dry	6.9	5.6	1	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 6.9		µg/kg dry	6.9	6.9	1	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 6.9		µg/kg dry	6.9	4.7	1	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 13.9		µg/kg dry	13.9	11.7	1	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 6.9		µg/kg dry	6.9	6.3	1	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 6.9		µg/kg dry	6.9	3.9	1	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 6.9		µg/kg dry	6.9	3.4	1	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	< 6.9		µg/kg dry	6.9	2.9	1	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 6.9		µg/kg dry	6.9	5.8	1	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 6.9		µg/kg dry	6.9	3.5	1	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 6.9		µg/kg dry	6.9	3.5	1	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 6.9		µg/kg dry	6.9	2.8	1	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 6.9		µg/kg dry	6.9	4.3	1	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 6.9		µg/kg dry	6.9	3.8	1	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 6.9		µg/kg dry	6.9	2.0	1	"	"	"	"	"	
100-41-4	Ethylbenzene	< 6.9		µg/kg dry	6.9	4.2	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-14 6-8' SB42546-07	1753-03-01	Soil	11-Jan-12 14:30	16-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds													
Prepared by method SW846 5035A Soil (low level)							Initial weight: 5.2 g						
87-68-3	Hexachlorobutadiene	< 6.9		µg/kg dry	6.9	6.0	1	SW846 8260C	18-Jan-12	18-Jan-12	JRO	1201366	
591-78-6	2-Hexanone (MBK)	< 69.4		µg/kg dry	69.4	17.7	1	"	"	"	"	"	
98-82-8	Isopropylbenzene	< 6.9		µg/kg dry	6.9	3.5	1	"	"	"	"	"	
99-87-6	4-Isopropyltoluene	< 6.9		µg/kg dry	6.9	2.9	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 6.9		µg/kg dry	6.9	5.0	1	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 69.4		µg/kg dry	69.4	22.6	1	"	"	"	"	"	
75-09-2	Methylene chloride	< 13.9		µg/kg dry	13.9	3.5	1	"	"	"	"	"	
91-20-3	Naphthalene	< 6.9		µg/kg dry	6.9	4.3	1	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 6.9		µg/kg dry	6.9	4.2	1	"	"	"	"	"	
100-42-5	Styrene	< 6.9		µg/kg dry	6.9	5.1	1	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 6.9		µg/kg dry	6.9	6.7	1	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 6.9		µg/kg dry	6.9	5.3	1	"	"	"	"	"	
127-18-4	Tetrachloroethene	**38.4**		µg/kg dry	6.9	4.0	1	"	"	"	"	"	
108-88-3	Toluene	< 6.9		µg/kg dry	6.9	6.2	1	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 6.9		µg/kg dry	6.9	6.0	1	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 6.9		µg/kg dry	6.9	5.2	1	"	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 6.9		µg/kg dry	6.9	4.9	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 6.9		µg/kg dry	6.9	5.6	1	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 6.9		µg/kg dry	6.9	6.0	1	"	"	"	"	"	
79-01-6	Trichloroethene	**331**	E	µg/kg dry	6.9	5.3	1	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 6.9		µg/kg dry	6.9	2.8	1	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 6.9		µg/kg dry	6.9	3.1	1	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 6.9		µg/kg dry	6.9	2.3	1	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 6.9		µg/kg dry	6.9	6.9	1	"	"	"	"	"	
75-01-4	Vinyl chloride	< 6.9		µg/kg dry	6.9	6.5	1	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 13.9		µg/kg dry	13.9	13.5	1	"	"	"	"	"	
95-47-6	o-Xylene	< 6.9		µg/kg dry	6.9	4.7	1	"	"	"	"	"	
109-99-9	Tetrahydrofuran	< 13.9		µg/kg dry	13.9	12.8	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 6.9		µg/kg dry	6.9	6.5	1	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	< 6.9		µg/kg dry	6.9	5.5	1	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 6.9		µg/kg dry	6.9	2.4	1	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 6.9		µg/kg dry	6.9	2.2	1	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 69.4		µg/kg dry	69.4	39.3	1	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 139		µg/kg dry	139	114	1	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-buten e	< 34.7		µg/kg dry	34.7	17.8	1	"	"	"	"	"	
64-17-5	Ethanol	< 2780		µg/kg dry	2780	581	1	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*102*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*100*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*121*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*102*			*70-130 %*			"	"	"	"	"	
Re-analysis of Volatile Organic Compounds			GS1										

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Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-14 6-8' SB42546-07	1753-03-01	Soil	11-Jan-12 14:30	16-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Re-analysis of Volatile Organic Compounds Prepared by method SW846 5030 Soil (high level)			GS1				Initial weight: 10 g						
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 102		µg/kg dry	102	68.2	50	SW846 8260C	20-Jan-12	20-Jan-12	naa	1201627	
67-64-1	Acetone	< 1020		µg/kg dry	1020	768	50	"	"	"	"	"	
107-13-1	Acrylonitrile	< 102		µg/kg dry	102	91.5	50	"	"	"	"	"	
71-43-2	Benzene	< 102		µg/kg dry	102	53.6	50	"	"	"	"	"	
108-86-1	Bromobenzene	< 102		µg/kg dry	102	65.2	50	"	"	"	"	"	
74-97-5	Bromochloromethane	< 102		µg/kg dry	102	33.5	50	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 102		µg/kg dry	102	38.6	50	"	"	"	"	"	
75-25-2	Bromoform	< 102		µg/kg dry	102	70.6	50	"	"	"	"	"	
74-83-9	Bromomethane	< 204		µg/kg dry	204	184	50	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	< 1020		µg/kg dry	1020	876	50	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 102		µg/kg dry	102	51.0	50	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 102		µg/kg dry	102	99.1	50	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 102		µg/kg dry	102	73.9	50	"	"	"	"	"	
75-15-0	Carbon disulfide	< 204		µg/kg dry	204	146	50	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 102		µg/kg dry	102	102	50	"	"	"	"	"	
108-90-7	Chlorobenzene	< 102		µg/kg dry	102	57.1	50	"	"	"	"	"	
75-00-3	Chloroethane	< 204		µg/kg dry	204	145	50	"	"	"	"	"	
67-66-3	Chloroform	< 102		µg/kg dry	102	50.0	50	"	"	"	"	"	
74-87-3	Chloromethane	< 204		µg/kg dry	204	51.4	50	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 102		µg/kg dry	102	62.2	50	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 102		µg/kg dry	102	91.5	50	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	< 204		µg/kg dry	204	193	50	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 102		µg/kg dry	102	49.0	50	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 102		µg/kg dry	102	63.4	50	"	"	"	"	"	
74-95-3	Dibromomethane	< 102		µg/kg dry	102	102	50	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 102		µg/kg dry	102	82.3	50	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 102		µg/kg dry	102	102	50	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 102		µg/kg dry	102	69.0	50	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 204		µg/kg dry	204	172	50	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 102		µg/kg dry	102	93.3	50	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 102		µg/kg dry	102	57.1	50	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 102		µg/kg dry	102	50.7	50	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	< 102		µg/kg dry	102	42.9	50	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 102		µg/kg dry	102	84.8	50	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 102		µg/kg dry	102	52.0	50	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 102		µg/kg dry	102	51.4	50	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 102		µg/kg dry	102	41.2	50	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 102		µg/kg dry	102	63.0	50	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 102		µg/kg dry	102	55.7	50	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 102		µg/kg dry	102	28.8	50	"	"	"	"	"	
100-41-4	Ethylbenzene	< 102		µg/kg dry	102	62.2	50	"	"	"	"	"	
87-68-3	Hexachlorobutadiene	< 102		µg/kg dry	102	88.1	50	"	"	"	"	"	
591-78-6	2-Hexanone (MBK)	< 1020		µg/kg dry	1020	261	50	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-14 6-8' SB42546-07	1753-03-01	Soil	11-Jan-12 14:30	16-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Re-analysis of Volatile Organic Compounds			GS1										
Prepared by method SW846 5030 Soil (high level)							Initial weight: 10 g						
98-82-8	Isopropylbenzene	< 102		µg/kg dry	102	51.3	50	SW846 8260C	20-Jan-12	20-Jan-12	naa	1201627	
99-87-6	4-Isopropyltoluene	< 102		µg/kg dry	102	42.3	50	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 102		µg/kg dry	102	74.3	50	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 1020		µg/kg dry	1020	332	50	"	"	"	"	"	
75-09-2	Methylene chloride	< 204		µg/kg dry	204	51.9	50	"	"	"	"	"	
91-20-3	Naphthalene	< 102		µg/kg dry	102	63.5	50	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 102		µg/kg dry	102	61.3	50	"	"	"	"	"	
100-42-5	Styrene	< 102		µg/kg dry	102	75.6	50	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 102		µg/kg dry	102	98.1	50	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 102		µg/kg dry	102	77.7	50	"	"	"	"	"	
127-18-4	Tetrachloroethene	**278**		µg/kg dry	102	58.4	50	"	"	"	"	"	
108-88-3	Toluene	< 102		µg/kg dry	102	91.6	50	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 102		µg/kg dry	102	88.5	50	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 102		µg/kg dry	102	76.8	50	"	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 102		µg/kg dry	102	72.3	50	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 102		µg/kg dry	102	81.8	50	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 102		µg/kg dry	102	87.9	50	"	"	"	"	"	
79-01-6	Trichloroethene	**2,180**		µg/kg dry	102	78.3	50	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 102		µg/kg dry	102	41.3	50	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 102		µg/kg dry	102	46.2	50	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 102		µg/kg dry	102	33.4	50	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 102		µg/kg dry	102	101	50	"	"	"	"	"	
75-01-4	Vinyl chloride	< 102		µg/kg dry	102	95.8	50	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 204		µg/kg dry	204	198	50	"	"	"	"	"	
95-47-6	o-Xylene	< 102		µg/kg dry	102	69.8	50	"	"	"	"	"	
109-99-9	Tetrahydrofuran	< 204		µg/kg dry	204	189	50	"	"	"	"	"	
60-29-7	Ethyl ether	< 102		µg/kg dry	102	95.3	50	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	< 102		µg/kg dry	102	80.6	50	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 102		µg/kg dry	102	35.7	50	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 102		µg/kg dry	102	32.9	50	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 1020		µg/kg dry	1020	578	50	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 2040		µg/kg dry	2040	1670	50	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-buten e	< 511		µg/kg dry	511	262	50	"	"	"	"	"	
64-17-5	Ethanol	< 40900		µg/kg dry	40900	8550	50	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*96*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*99*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*96*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*85*			*70-130 %*			"	"	"	"	"	
VPH Aliphatic/Aromatic Carbon Ranges			VC10										
Prepared by method VPH - EPA 5030B							Initial weight: 10 g						

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-14 6-8'	1753-03-01	Soil	11-Jan-12 14:30	16-Jan-12
SB42546-07				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
VPH Aliphatic/Aromatic Carbon Ranges			VC10										
Prepared by method VPH - EPA 5030B							Initial weight: 10 g						
	C5-C8 Aliphatic Hydrocarbons	< 1.53		mg/kg dry	1.53	0.144	50	MADEP VPH 5/2004 Rev. 1.1	24-Jan-12	25-Jan-12	mp	1201825	
	C9-C12 Aliphatic Hydrocarbons	< 0.511		mg/kg dry	0.511	0.0745	50	"	"	"	"	"	
	C9-C10 Aromatic Hydrocarbons	< 0.511		mg/kg dry	0.511	0.0132	50	"	"	"	"	"	
	Unadjusted C5-C8 Aliphatic Hydrocarbons	< 1.53		mg/kg dry	1.53	0.118	50	"	"	"	"	"	
	Unadjusted C9-C12 Aliphatic Hydrocarbons	< 0.511		mg/kg dry	0.511	0.0700	50	"	"	"	"	"	
VPH Target Analytes			VC10										
Prepared by method VPH - EPA 5030B							Initial weight: 10 g						
71-43-2	Benzene	< 0.1		mg/kg dry	0.1	0.02	50	"	"	"	"	"	
100-41-4	Ethylbenzene	< 0.1		mg/kg dry	0.1	0.02	50	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 0.1		mg/kg dry	0.1	0.02	50	"	"	"	"	"	
91-20-3	Naphthalene	< 0.1		mg/kg dry	0.1	0.02	50	"	"	"	"	"	
108-88-3	Toluene	< 0.1		mg/kg dry	0.1	0.02	50	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 0.2		mg/kg dry	0.2	0.06	50	"	"	"	"	"	
95-47-6	o-Xylene	< 0.1		mg/kg dry	0.1	0.03	50	"	"	"	"	"	
Surrogate recoveries:													
615-59-8	*2,5-Dibromotoluene (FID)*	*96*			*70-130 %*			"	"	"	"	"	
615-59-8	*2,5-Dibromotoluene (PID)*	*85*			*70-130 %*			"	"	"	"	"	
Extractable Petroleum Hydrocarbons													
EPH Aliphatic/Aromatic Ranges													
Prepared by method SW846 3545A													
	C9-C18 Aliphatic Hydrocarbons	< 12.0		mg/kg dry	12.0	1.77	1	MADEP EPH 5/2004 R	18-Jan-12	24-Jan-12	MP	1201380	
	C19-C36 Aliphatic Hydrocarbons	< 12.0		mg/kg dry	12.0	5.88	1	"	"	"	"	"	
	C11-C22 Aromatic Hydrocarbons	< 12.0		mg/kg dry	12.0	4.35	1	"	"	"	"	"	
	Unadjusted C11-C22 Aromatic Hydrocarbons	< 12.0		mg/kg dry	12.0	4.35	1	"	"	"	"	"	
	Total Petroleum Hydrocarbons	< 12.0		mg/kg dry	12.0	12.0	1	"	"	"	"	"	
	Unadjusted Total Petroleum Hydrocarbons	< 12.0		mg/kg dry	12.0	12.0	1	"	"	"	"	"	
EPH Target PAH Analytes													
Prepared by method SW846 3545A													
91-20-3	Naphthalene	< 0.400		mg/kg dry	0.400	0.209	1	"	"	"	"	"	
91-57-6	2-Methylnaphthalene	< 0.400		mg/kg dry	0.400	0.209	1	"	"	"	"	"	
208-96-8	Acenaphthylene	< 0.400		mg/kg dry	0.400	0.234	1	"	"	"	"	"	
83-32-9	Acenaphthene	< 0.400		mg/kg dry	0.400	0.234	1	"	"	"	"	"	
86-73-7	Fluorene	< 0.400		mg/kg dry	0.400	0.237	1	"	"	"	"	"	
85-01-8	Phenanthrene	< 0.400		mg/kg dry	0.400	0.273	1	"	"	"	"	"	
120-12-7	Anthracene	< 0.400		mg/kg dry	0.400	0.297	1	"	"	"	"	"	
206-44-0	Fluoranthene	< 0.400		mg/kg dry	0.400	0.268	1	"	"	"	"	"	
129-00-0	Pyrene	< 0.400		mg/kg dry	0.400	0.289	1	"	"	"	"	"	
56-55-3	Benzo (a) anthracene	< 0.400		mg/kg dry	0.400	0.290	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-14 6-8' SB42546-07	1753-03-01	Soil	11-Jan-12 14:30	16-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Extractable Petroleum Hydrocarbons													
EPH Target PAH Analytes Prepared by method SW846 3545A													
218-01-9	Chrysene	< 0.400		mg/kg dry	0.400	0.311	1	MADEP EPH 5/2004 R	18-Jan-12	24-Jan-12	MP	1201380	
205-99-2	Benzo (b) fluoranthene	< 0.400		mg/kg dry	0.400	0.357	1	"	"	"	"	"	
207-08-9	Benzo (k) fluoranthene	< 0.400		mg/kg dry	0.400	0.334	1	"	"	"	"	"	
50-32-8	Benzo (a) pyrene	< 0.400		mg/kg dry	0.400	0.269	1	"	"	"	"	"	
193-39-5	Indeno (1,2,3-cd) pyrene	< 0.400		mg/kg dry	0.400	0.356	1	"	"	"	"	"	
53-70-3	Dibenzo (a,h) anthracene	< 0.400		mg/kg dry	0.400	0.290	1	"	"	"	"	"	
191-24-2	Benzo (g,h,i) perylene	< 0.400		mg/kg dry	0.400	0.300	1	"	"	"	"	"	
Surrogate recoveries:													
3386-33-2	*1-Chlorooctadecane*	*72*			*40-140 %*			"	"	"	"	"	
84-15-1	*Ortho-Terphenyl*	*59*			*40-140 %*			"	"	"	"	"	
321-60-8	*2-Fluorobiphenyl*	*73*			*40-140 %*			"	"	"	"	"	
General Chemistry Parameters													
	% Solids	**82.1**		%			1	SM2540 G Mod.	17-Jan-12	17-Jan-12	DT	1201291	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-15 0-2'	1753-03-01	Soil	11-Jan-12 14:45	16-Jan-12
SB42546-08				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Semivolatile Organic Compounds by GC													
Polychlorinated Biphenyls Prepared by method SW846 3545A													
12674-11-2	Aroclor-1016	< 22.9		µg/kg dry	22.9	11.4	1	SW846 8082A	20-Jan-12	20-Jan-12	IMR	1201586	
11104-28-2	Aroclor-1221	< 22.9		µg/kg dry	22.9	20.6	1	"	"	"	"	"	
11141-16-5	Aroclor-1232	< 22.9		µg/kg dry	22.9	14.7	1	"	"	"	"	"	
53469-21-9	Aroclor-1242	< 22.9		µg/kg dry	22.9	13.5	1	"	"	"	"	"	
12672-29-6	Aroclor-1248	< 22.9		µg/kg dry	22.9	11.2	1	"	"	"	"	"	
11097-69-1	Aroclor-1254	< 22.9		µg/kg dry	22.9	16.8	1	"	"	"	"	"	
11096-82-5	Aroclor-1260	< 22.9		µg/kg dry	22.9	8.77	1	"	"	"	"	"	
37324-23-5	Aroclor-1262	< 22.9		µg/kg dry	22.9	21.3	1	"	"	"	"	"	
11100-14-4	Aroclor-1268	< 22.9		µg/kg dry	22.9	7.18	1	"	"	"	"	"	
Surrogate recoveries:													
10386-84-2	*4,4-DB-Octafluorobiphenyl (Sr)*	*35*			*30-150 %*			"	"	"	"	"	
10386-84-2	*4,4-DB-Octafluorobiphenyl (Sr) [2C]*	*45*			*30-150 %*			"	"	"	"	"	
2051-24-3	*Decachlorobiphenyl (Sr)*	*75*			*30-150 %*			"	"	"	"	"	
2051-24-3	*Decachlorobiphenyl (Sr) [2C]*	*60*			*30-150 %*			"	"	"	"	"	
Total Metals by EPA 6000/7000 Series Methods													
7440-22-4	Silver	**101**		mg/kg dry	1.64	0.252	1	SW846 6010C	19-Jan-12	20-Jan-12	EDT	1201419	
7429-90-5	Aluminum	**9,410**		mg/kg dry	5.46	0.764	1	"	"	"	"	"	
7440-38-2	Arsenic	**6.02**		mg/kg dry	1.64	0.263	1	"	"	"	"	"	
7440-39-3	Barium	**34.8**		mg/kg dry	1.09	0.264	1	"	"	22-Jan-12	"	"	
7440-41-7	Beryllium	< 0.546		mg/kg dry	0.546	0.175	1	"	"	"	"	"	
7440-70-2	Calcium	**931**		mg/kg dry	27.3	6.83	1	"	"	20-Jan-12	"	"	
7440-43-9	Cadmium	**6.96**		mg/kg dry	0.546	0.0602	1	"	"	"	"	"	
7440-48-4	Cobalt	**4.63**		mg/kg dry	1.09	0.121	1	"	"	"	"	"	
7440-47-3	Chromium	**15.9**		mg/kg dry	1.09	0.398	1	"	"	"	"	"	
7440-50-8	Copper	**97.7**		mg/kg dry	1.09	0.123	1	"	"	"	"	"	
7439-89-6	Iron	**16,400**		mg/kg dry	4.37	0.804	1	"	"	22-Jan-12	"	"	
7439-97-6	Mercury	**0.217**		mg/kg dry	0.0342	0.0070	1	SW846 7471B	24-Jan-12	24-Jan-12	AMT	1201420	
7440-09-7	Potassium	**424**		mg/kg dry	54.6	13.7	1	SW846 6010C	19-Jan-12	20-Jan-12	EDT	1201419	
7439-95-4	Magnesium	**2,330**		mg/kg dry	5.46	0.156	1	"	"	"	"	"	
7439-96-5	Manganese	**191**		mg/kg dry	1.09	0.0590	1	"	"	"	"	"	
7440-23-5	Sodium	**28.5**		mg/kg dry	27.3	3.46	1	"	"	"	"	"	
7440-02-0	Nickel	**53.2**		mg/kg dry	1.09	0.0752	1	"	"	"	"	"	
7439-92-1	Lead	**50.7**		mg/kg dry	1.64	0.194	1	"	"	"	"	"	
7440-36-0	Antimony	< 5.46		mg/kg dry	5.46	0.240	1	"	"	"	"	"	
7782-49-2	Selenium	< 1.64		mg/kg dry	1.64	0.242	1	"	"	"	"	"	
7440-28-0	Thallium	< 3.27		mg/kg dry	3.27	0.269	1	"	"	"	"	"	
7440-62-2	Vanadium	**35.7**		mg/kg dry	1.64	0.286	1	"	"	"	"	"	
7440-66-6	Zinc	**83.1**		mg/kg dry	1.09	0.237	1	"	"	"	"	"	
General Chemistry Parameters													
	% Solids	**84.7**		%			1	SM2540 G Mod.	17-Jan-12	17-Jan-12	DT	1201291	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-15 4-6' SB42546-09	1753-03-01	Soil	11-Jan-12 14:55	16-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Extractable Petroleum Hydrocarbons													
EPH Aliphatic/Aromatic Ranges Prepared by method SW846 3545A													
	C9-C18 Aliphatic Hydrocarbons	< 12.0		mg/kg dry	12.0	1.76	1	MADEP EPH 5/2004 R	18-Jan-12	24-Jan-12	MP	1201380	
	C19-C36 Aliphatic Hydrocarbons	< 12.0		mg/kg dry	12.0	5.85	1	"	"	"	"	"	
	C11-C22 Aromatic Hydrocarbons	< 12.0		mg/kg dry	12.0	4.33	1	"	"	"	"	"	
	Unadjusted C11-C22 Aromatic Hydrocarbons	< 12.0		mg/kg dry	12.0	4.33	1	"	"	"	"	"	
	Total Petroleum Hydrocarbons	< 12.0		mg/kg dry	12.0	11.9	1	"	"	"	"	"	
	Unadjusted Total Petroleum Hydrocarbons	< 12.0		mg/kg dry	12.0	11.9	1	"	"	"	"	"	
EPH Target PAH Analytes Prepared by method SW846 3545A													
91-20-3	Naphthalene	< 0.398		mg/kg dry	0.398	0.208	1	"	"	"	"	"	
91-57-6	2-Methylnaphthalene	< 0.398		mg/kg dry	0.398	0.208	1	"	"	"	"	"	
208-96-8	Acenaphthylene	< 0.398		mg/kg dry	0.398	0.233	1	"	"	"	"	"	
83-32-9	Acenaphthene	< 0.398		mg/kg dry	0.398	0.233	1	"	"	"	"	"	
86-73-7	Fluorene	< 0.398		mg/kg dry	0.398	0.235	1	"	"	"	"	"	
85-01-8	Phenanthrene	< 0.398		mg/kg dry	0.398	0.271	1	"	"	"	"	"	
120-12-7	Anthracene	< 0.398		mg/kg dry	0.398	0.295	1	"	"	"	"	"	
206-44-0	Fluoranthene	< 0.398		mg/kg dry	0.398	0.267	1	"	"	"	"	"	
129-00-0	Pyrene	< 0.398		mg/kg dry	0.398	0.287	1	"	"	"	"	"	
56-55-3	Benzo (a) anthracene	< 0.398		mg/kg dry	0.398	0.289	1	"	"	"	"	"	
218-01-9	Chrysene	< 0.398		mg/kg dry	0.398	0.310	1	"	"	"	"	"	
205-99-2	Benzo (b) fluoranthene	< 0.398		mg/kg dry	0.398	0.355	1	"	"	"	"	"	
207-08-9	Benzo (k) fluoranthene	< 0.398		mg/kg dry	0.398	0.332	1	"	"	"	"	"	
50-32-8	Benzo (a) pyrene	< 0.398		mg/kg dry	0.398	0.268	1	"	"	"	"	"	
193-39-5	Indeno (1,2,3-cd) pyrene	< 0.398		mg/kg dry	0.398	0.354	1	"	"	"	"	"	
53-70-3	Dibenzo (a,h) anthracene	< 0.398		mg/kg dry	0.398	0.289	1	"	"	"	"	"	
191-24-2	Benzo (g,h,i) perylene	< 0.398		mg/kg dry	0.398	0.298	1	"	"	"	"	"	
Surrogate recoveries:													
3386-33-2	*1-Chlorooctadecane*	*53*			*40-140 %*			"	"	"	"	"	
84-15-1	*Ortho-Terphenyl*	*51*			*40-140 %*			"	"	"	"	"	
321-60-8	*2-Fluorobiphenyl*	*68*			*40-140 %*			"	"	"	"	"	
General Chemistry Parameters													
	% Solids	83.1		%			1	SM2540 G Mod.	17-Jan-12	17-Jan-12	DT	1201291	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-17 6-8' SB42546-10	1753-03-01	Soil	11-Jan-12 15:28	16-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
	VOC Extraction	**Field extracted**		N/A			1	VOC Soil Extraction	17-Jan-12	17-Jan-12	BD	1201301	
Volatile Organic Compounds													
Prepared by method SW846 5035A Soil (low level)							Initial weight: 4.47 g						
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 8.7		µg/kg dry	8.7	5.8	1	SW846 8260C	18-Jan-12	19-Jan-12	JRO	1201366	
67-64-1	Acetone	**91.8**		µg/kg dry	87.0	65.4	1	"	"	"	"	"	
107-13-1	Acrylonitrile	< 8.7		µg/kg dry	8.7	7.8	1	"	"	"	"	"	
71-43-2	Benzene	< 8.7		µg/kg dry	8.7	4.6	1	"	"	"	"	"	
108-86-1	Bromobenzene	< 8.7		µg/kg dry	8.7	5.6	1	"	"	"	"	"	
74-97-5	Bromochloromethane	< 8.7		µg/kg dry	8.7	2.9	1	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 8.7		µg/kg dry	8.7	3.3	1	"	"	"	"	"	
75-25-2	Bromoform	< 8.7		µg/kg dry	8.7	6.0	1	"	"	"	"	"	
74-83-9	Bromomethane	< 17.4		µg/kg dry	17.4	15.7	1	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	< 87.0		µg/kg dry	87.0	74.7	1	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 8.7		µg/kg dry	8.7	4.3	1	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 8.7		µg/kg dry	8.7	8.4	1	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 8.7		µg/kg dry	8.7	6.3	1	"	"	"	"	"	
75-15-0	Carbon disulfide	< 17.4		µg/kg dry	17.4	12.4	1	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 8.7		µg/kg dry	8.7	8.7	1	"	"	"	"	"	
108-90-7	Chlorobenzene	< 8.7		µg/kg dry	8.7	4.9	1	"	"	"	"	"	
75-00-3	Chloroethane	< 17.4		µg/kg dry	17.4	12.3	1	"	"	"	"	"	
67-66-3	Chloroform	< 8.7		µg/kg dry	8.7	4.3	1	"	"	"	"	"	
74-87-3	Chloromethane	< 17.4		µg/kg dry	17.4	4.4	1	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 8.7		µg/kg dry	8.7	5.3	1	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 8.7		µg/kg dry	8.7	7.8	1	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	< 17.4		µg/kg dry	17.4	16.5	1	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 8.7		µg/kg dry	8.7	4.2	1	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 8.7		µg/kg dry	8.7	5.4	1	"	"	"	"	"	
74-95-3	Dibromomethane	< 8.7		µg/kg dry	8.7	8.7	1	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 8.7		µg/kg dry	8.7	7.0	1	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 8.7		µg/kg dry	8.7	8.7	1	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 8.7		µg/kg dry	8.7	5.9	1	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 17.4		µg/kg dry	17.4	14.7	1	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 8.7		µg/kg dry	8.7	7.9	1	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 8.7		µg/kg dry	8.7	4.9	1	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 8.7		µg/kg dry	8.7	4.3	1	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	**301**		µg/kg dry	8.7	3.7	1	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 8.7		µg/kg dry	8.7	7.2	1	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 8.7		µg/kg dry	8.7	4.4	1	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 8.7		µg/kg dry	8.7	4.4	1	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 8.7		µg/kg dry	8.7	3.5	1	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 8.7		µg/kg dry	8.7	5.4	1	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 8.7		µg/kg dry	8.7	4.7	1	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 8.7		µg/kg dry	8.7	2.5	1	"	"	"	"	"	
100-41-4	Ethylbenzene	< 8.7		µg/kg dry	8.7	5.3	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-17 6-8' SB42546-10	1753-03-01	Soil	11-Jan-12 15:28	16-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds													
Prepared by method SW846 5035A Soil (low level)							Initial weight: 4.47 g						
87-68-3	Hexachlorobutadiene	< 8.7		µg/kg dry	8.7	7.5	1	SW846 8260C	18-Jan-12	19-Jan-12	JRO	1201366	
591-78-6	2-Hexanone (MBK)	< 87.0		µg/kg dry	87.0	22.2	1	"	"	"	"	"	
98-82-8	Isopropylbenzene	< 8.7		µg/kg dry	8.7	4.4	1	"	"	"	"	"	
99-87-6	4-Isopropyltoluene	< 8.7		µg/kg dry	8.7	3.6	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 8.7		µg/kg dry	8.7	6.3	1	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 87.0		µg/kg dry	87.0	28.3	1	"	"	"	"	"	
75-09-2	Methylene chloride	< 17.4		µg/kg dry	17.4	4.4	1	"	"	"	"	"	
91-20-3	Naphthalene	< 8.7		µg/kg dry	8.7	5.4	1	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 8.7		µg/kg dry	8.7	5.2	1	"	"	"	"	"	
100-42-5	Styrene	< 8.7		µg/kg dry	8.7	6.4	1	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 8.7		µg/kg dry	8.7	8.4	1	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 8.7		µg/kg dry	8.7	6.6	1	"	"	"	"	"	
127-18-4	Tetrachloroethene	**203**		µg/kg dry	8.7	5.0	1	"	"	"	"	"	
108-88-3	Toluene	< 8.7		µg/kg dry	8.7	7.8	1	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 8.7		µg/kg dry	8.7	7.5	1	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 8.7		µg/kg dry	8.7	6.5	1	"	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 8.7		µg/kg dry	8.7	6.2	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 8.7		µg/kg dry	8.7	7.0	1	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 8.7		µg/kg dry	8.7	7.5	1	"	"	"	"	"	
79-01-6	Trichloroethene	**2,770**	E	µg/kg dry	8.7	6.7	1	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 8.7		µg/kg dry	8.7	3.5	1	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 8.7		µg/kg dry	8.7	3.9	1	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 8.7		µg/kg dry	8.7	2.8	1	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 8.7		µg/kg dry	8.7	8.6	1	"	"	"	"	"	
75-01-4	Vinyl chloride	**37.9**		µg/kg dry	8.7	8.2	1	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 17.4		µg/kg dry	17.4	16.9	1	"	"	"	"	"	
95-47-6	o-Xylene	< 8.7		µg/kg dry	8.7	5.9	1	"	"	"	"	"	
109-99-9	Tetrahydrofuran	< 17.4		µg/kg dry	17.4	16.1	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 8.7		µg/kg dry	8.7	8.1	1	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	< 8.7		µg/kg dry	8.7	6.9	1	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 8.7		µg/kg dry	8.7	3.0	1	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 8.7		µg/kg dry	8.7	2.8	1	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 87.0		µg/kg dry	87.0	49.3	1	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 174		µg/kg dry	174	143	1	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-buten e	< 43.5		µg/kg dry	43.5	22.3	1	"	"	"	"	"	
64-17-5	Ethanol	< 3480		µg/kg dry	3480	728	1	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*98*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*101*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*113*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*102*			*70-130 %*			"	"	"	"	"	
Re-analysis of Volatile Organic Compounds			GS1										

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Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-17 6-8'	1753-03-01	Soil	11-Jan-12 15:28	16-Jan-12
SB42546-10				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Re-analysis of Volatile Organic Compounds			GS1										
Prepared by method SW846 5030 Soil (high level)							Initial weight: 9.41 g						
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 471		µg/kg dry	471	314	200	SW846 8260C	20-Jan-12	20-Jan-12	naa	1201627	
67-64-1	Acetone	< 4710		µg/kg dry	4710	3540	200	"	"	"	"	"	
107-13-1	Acrylonitrile	< 471		µg/kg dry	471	422	200	"	"	"	"	"	
71-43-2	Benzene	< 471		µg/kg dry	471	247	200	"	"	"	"	"	
108-86-1	Bromobenzene	< 471		µg/kg dry	471	301	200	"	"	"	"	"	
74-97-5	Bromochloromethane	< 471		µg/kg dry	471	155	200	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 471		µg/kg dry	471	178	200	"	"	"	"	"	
75-25-2	Bromoform	< 471		µg/kg dry	471	326	200	"	"	"	"	"	
74-83-9	Bromomethane	< 942		µg/kg dry	942	849	200	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	< 4710		µg/kg dry	4710	4040	200	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 471		µg/kg dry	471	235	200	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 471		µg/kg dry	471	457	200	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 471		µg/kg dry	471	341	200	"	"	"	"	"	
75-15-0	Carbon disulfide	< 942		µg/kg dry	942	673	200	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 471		µg/kg dry	471	468	200	"	"	"	"	"	
108-90-7	Chlorobenzene	< 471		µg/kg dry	471	263	200	"	"	"	"	"	
75-00-3	Chloroethane	< 942		µg/kg dry	942	667	200	"	"	"	"	"	
67-66-3	Chloroform	< 471		µg/kg dry	471	230	200	"	"	"	"	"	
74-87-3	Chloromethane	< 942		µg/kg dry	942	237	200	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 471		µg/kg dry	471	287	200	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 471		µg/kg dry	471	422	200	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	< 942		µg/kg dry	942	891	200	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 471		µg/kg dry	471	226	200	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 471		µg/kg dry	471	292	200	"	"	"	"	"	
74-95-3	Dibromomethane	< 471		µg/kg dry	471	470	200	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 471		µg/kg dry	471	379	200	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 471		µg/kg dry	471	469	200	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 471		µg/kg dry	471	318	200	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 942		µg/kg dry	942	795	200	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 471		µg/kg dry	471	430	200	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 471		µg/kg dry	471	263	200	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 471		µg/kg dry	471	234	200	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	< 471		µg/kg dry	471	198	200	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 471		µg/kg dry	471	391	200	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 471		µg/kg dry	471	240	200	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 471		µg/kg dry	471	237	200	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 471		µg/kg dry	471	190	200	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 471		µg/kg dry	471	291	200	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 471		µg/kg dry	471	257	200	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 471		µg/kg dry	471	133	200	"	"	"	"	"	
100-41-4	Ethylbenzene	< 471		µg/kg dry	471	287	200	"	"	"	"	"	
87-68-3	Hexachlorobutadiene	< 471		µg/kg dry	471	406	200	"	"	"	"	"	
591-78-6	2-Hexanone (MBK)	< 4710		µg/kg dry	4710	1200	200	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-17 6-8' SB42546-10	1753-03-01	Soil	11-Jan-12 15:28	16-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Re-analysis of Volatile Organic Compounds			GS1										
Prepared by method SW846 5030 Soil (high level)							Initial weight: 9.41 g						
98-82-8	Isopropylbenzene	< 471		µg/kg dry	471	237	200	SW846 8260C	20-Jan-12	20-Jan-12	naa	1201627	
99-87-6	4-Isopropyltoluene	< 471		µg/kg dry	471	195	200	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 471		µg/kg dry	471	343	200	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 4710		µg/kg dry	4710	1530	200	"	"	"	"	"	
75-09-2	Methylene chloride	< 942		µg/kg dry	942	239	200	"	"	"	"	"	
91-20-3	Naphthalene	< 471		µg/kg dry	471	293	200	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 471		µg/kg dry	471	283	200	"	"	"	"	"	
100-42-5	Styrene	< 471		µg/kg dry	471	349	200	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 471		µg/kg dry	471	452	200	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 471		µg/kg dry	471	358	200	"	"	"	"	"	
127-18-4	Tetrachloroethene	< 471		µg/kg dry	471	270	200	"	"	"	"	"	
108-88-3	Toluene	< 471		µg/kg dry	471	422	200	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 471		µg/kg dry	471	408	200	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 471		µg/kg dry	471	354	200	"	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 471		µg/kg dry	471	334	200	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 471		µg/kg dry	471	377	200	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 471		µg/kg dry	471	405	200	"	"	"	"	"	
79-01-6	Trichloroethene	**4,360**		µg/kg dry	471	361	200	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 471		µg/kg dry	471	190	200	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 471		µg/kg dry	471	213	200	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 471		µg/kg dry	471	154	200	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 471		µg/kg dry	471	467	200	"	"	"	"	"	
75-01-4	Vinyl chloride	< 471		µg/kg dry	471	442	200	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 942		µg/kg dry	942	914	200	"	"	"	"	"	
95-47-6	o-Xylene	< 471		µg/kg dry	471	322	200	"	"	"	"	"	
109-99-9	Tetrahydrofuran	< 942		µg/kg dry	942	872	200	"	"	"	"	"	
60-29-7	Ethyl ether	< 471		µg/kg dry	471	440	200	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	< 471		µg/kg dry	471	372	200	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 471		µg/kg dry	471	164	200	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 471		µg/kg dry	471	152	200	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 4710		µg/kg dry	4710	2670	200	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 9420		µg/kg dry	9420	7720	200	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-buten e	< 2360		µg/kg dry	2360	1210	200	"	"	"	"	"	
64-17-5	Ethanol	< 188000		µg/kg dry	188000	39400	200	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*100*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*99*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*103*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*90*			*70-130 %*			"	"	"	"	"	
VPH Aliphatic/Aromatic Carbon Ranges			VC10										
Prepared by method VPH - EPA 5030B							Initial weight: 9.41 g						

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Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-17 6-8' SB42546-10	1753-03-01	Soil	11-Jan-12 15:28	16-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
VPH Aliphatic/Aromatic Carbon Ranges			VC10										
Prepared by method VPH - EPA 5030B							Initial weight: 9.41 g						
	C5-C8 Aliphatic Hydrocarbons	2.41		mg/kg dry	1.77	0.166	50	MADEP VPH 5/2004 Rev. 1.1	24-Jan-12	25-Jan-12	mp	1201825	
	C9-C12 Aliphatic Hydrocarbons	< 0.589		mg/kg dry	0.589	0.0859	50	"	"	"	"	"	
	C9-C10 Aromatic Hydrocarbons	< 0.589		mg/kg dry	0.589	0.0152	50	"	"	"	"	"	
	Unadjusted C5-C8 Aliphatic Hydrocarbons	2.41		mg/kg dry	1.77	0.135	50	"	"	"	"	"	
	Unadjusted C9-C12 Aliphatic Hydrocarbons	< 0.589		mg/kg dry	0.589	0.0807	50	"	"	"	"	"	
VPH Target Analytes			VC10										
Prepared by method VPH - EPA 5030B							Initial weight: 9.41 g						
71-43-2	Benzene	< 0.1		mg/kg dry	0.1	0.03	50	"	"	"	"	"	
100-41-4	Ethylbenzene	< 0.1		mg/kg dry	0.1	0.03	50	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 0.1		mg/kg dry	0.1	0.02	50	"	"	"	"	"	
91-20-3	Naphthalene	< 0.1		mg/kg dry	0.1	0.02	50	"	"	"	"	"	
108-88-3	Toluene	< 0.1		mg/kg dry	0.1	0.03	50	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 0.2		mg/kg dry	0.2	0.07	50	"	"	"	"	"	
95-47-6	o-Xylene	< 0.1		mg/kg dry	0.1	0.03	50	"	"	"	"	"	
Surrogate recoveries:													
615-59-8	*2,5-Dibromotoluene (FID)*	*98*			*70-130 %*			"	"	"	"	"	
615-59-8	*2,5-Dibromotoluene (PID)*	*87*			*70-130 %*			"	"	"	"	"	
Extractable Petroleum Hydrocarbons													
EPH Aliphatic/Aromatic Ranges													
Prepared by method SW846 3545A													
	C9-C18 Aliphatic Hydrocarbons	< 12.7		mg/kg dry	12.7	1.87	1	MADEP EPH 5/2004 R	18-Jan-12	24-Jan-12	MP	1201380	
	C19-C36 Aliphatic Hydrocarbons	< 12.7		mg/kg dry	12.7	6.22	1	"	"	"	"	"	
	C11-C22 Aromatic Hydrocarbons	< 12.7		mg/kg dry	12.7	4.60	1	"	"	"	"	"	
	Unadjusted C11-C22 Aromatic Hydrocarbons	< 12.7		mg/kg dry	12.7	4.60	1	"	"	"	"	"	
	Total Petroleum Hydrocarbons	< 12.7		mg/kg dry	12.7	12.7	1	"	"	"	"	"	
	Unadjusted Total Petroleum Hydrocarbons	< 12.7		mg/kg dry	12.7	12.7	1	"	"	"	"	"	
EPH Target PAH Analytes													
Prepared by method SW846 3545A													
91-20-3	Naphthalene	< 0.423		mg/kg dry	0.423	0.221	1	"	"	"	"	"	
91-57-6	2-Methylnaphthalene	< 0.423		mg/kg dry	0.423	0.221	1	"	"	"	"	"	
208-96-8	Acenaphthylene	< 0.423		mg/kg dry	0.423	0.248	1	"	"	"	"	"	
83-32-9	Acenaphthene	< 0.423		mg/kg dry	0.423	0.247	1	"	"	"	"	"	
86-73-7	Fluorene	< 0.423		mg/kg dry	0.423	0.250	1	"	"	"	"	"	
85-01-8	Phenanthrene	< 0.423		mg/kg dry	0.423	0.288	1	"	"	"	"	"	
120-12-7	Anthracene	< 0.423		mg/kg dry	0.423	0.314	1	"	"	"	"	"	
206-44-0	Fluoranthene	< 0.423		mg/kg dry	0.423	0.284	1	"	"	"	"	"	
129-00-0	Pyrene	< 0.423		mg/kg dry	0.423	0.305	1	"	"	"	"	"	
56-55-3	Benzo (a) anthracene	< 0.423		mg/kg dry	0.423	0.307	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-17 6-8' SB42546-10	1753-03-01	Soil	11-Jan-12 15:28	16-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Extractable Petroleum Hydrocarbons													
EPH Target PAH Analytes Prepared by method SW846 3545A													
218-01-9	Chrysene	< 0.423		mg/kg dry	0.423	0.329	1	MADEP EPH 5/2004 R	18-Jan-12	24-Jan-12	MP	1201380	
205-99-2	Benzo (b) fluoranthene	< 0.423		mg/kg dry	0.423	0.377	1	"	"	"	"	"	
207-08-9	Benzo (k) fluoranthene	< 0.423		mg/kg dry	0.423	0.353	1	"	"	"	"	"	
50-32-8	Benzo (a) pyrene	< 0.423		mg/kg dry	0.423	0.285	1	"	"	"	"	"	
193-39-5	Indeno (1,2,3-cd) pyrene	< 0.423		mg/kg dry	0.423	0.376	1	"	"	"	"	"	
53-70-3	Dibenzo (a,h) anthracene	< 0.423		mg/kg dry	0.423	0.307	1	"	"	"	"	"	
191-24-2	Benzo (g,h,i) perylene	< 0.423		mg/kg dry	0.423	0.317	1	"	"	"	"	"	
Surrogate recoveries:													
3386-33-2	*1-Chlorooctadecane*	*62*			*40-140 %*			"	"	"	"	"	
84-15-1	*Ortho-Terphenyl*	*61*			*40-140 %*			"	"	"	"	"	
321-60-8	*2-Fluorobiphenyl*	*78*			*40-140 %*			"	"	"	"	"	
General Chemistry Parameters													
	% Solids	**77.3**		%			1	SM2540 G Mod.	17-Jan-12	17-Jan-12	DT	1201291	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-19 7-9' SB42546-11	1753-03-01	Soil	12-Jan-12 13:00	16-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
	VOC Extraction	**Field extracted**		N/A			1	VOC Soil Extraction	17-Jan-12	17-Jan-12	BD	1201301	
Volatile Organic Compounds													
Prepared by method SW846 5035A Soil (low level)							Initial weight: 4.59 g						
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 8.6		µg/kg dry	8.6	5.7	1	SW846 8260C	18-Jan-12	19-Jan-12	JRO	1201366	
67-64-1	Acetone	< 85.5		µg/kg dry	85.5	64.3	1	"	"	"	"	"	
107-13-1	Acrylonitrile	< 8.6		µg/kg dry	8.6	7.7	1	"	"	"	"	"	
71-43-2	Benzene	< 8.6		µg/kg dry	8.6	4.5	1	"	"	"	"	"	
108-86-1	Bromobenzene	< 8.6		µg/kg dry	8.6	5.5	1	"	"	"	"	"	
74-97-5	Bromochloromethane	< 8.6		µg/kg dry	8.6	2.8	1	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 8.6		µg/kg dry	8.6	3.2	1	"	"	"	"	"	
75-25-2	Bromoform	< 8.6		µg/kg dry	8.6	5.9	1	"	"	"	"	"	
74-83-9	Bromomethane	< 17.1		µg/kg dry	17.1	15.4	1	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	< 85.5		µg/kg dry	85.5	73.4	1	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 8.6		µg/kg dry	8.6	4.3	1	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 8.6		µg/kg dry	8.6	8.3	1	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 8.6		µg/kg dry	8.6	6.2	1	"	"	"	"	"	
75-15-0	Carbon disulfide	< 17.1		µg/kg dry	17.1	12.2	1	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 8.6		µg/kg dry	8.6	8.5	1	"	"	"	"	"	
108-90-7	Chlorobenzene	< 8.6		µg/kg dry	8.6	4.8	1	"	"	"	"	"	
75-00-3	Chloroethane	< 17.1		µg/kg dry	17.1	12.1	1	"	"	"	"	"	
67-66-3	Chloroform	< 8.6		µg/kg dry	8.6	4.2	1	"	"	"	"	"	
74-87-3	Chloromethane	< 17.1		µg/kg dry	17.1	4.3	1	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 8.6		µg/kg dry	8.6	5.2	1	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 8.6		µg/kg dry	8.6	7.7	1	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	< 17.1		µg/kg dry	17.1	16.2	1	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 8.6		µg/kg dry	8.6	4.1	1	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 8.6		µg/kg dry	8.6	5.3	1	"	"	"	"	"	
74-95-3	Dibromomethane	< 8.6		µg/kg dry	8.6	8.5	1	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 8.6		µg/kg dry	8.6	6.9	1	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 8.6		µg/kg dry	8.6	8.5	1	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 8.6		µg/kg dry	8.6	5.8	1	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 17.1		µg/kg dry	17.1	14.4	1	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 8.6		µg/kg dry	8.6	7.8	1	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 8.6		µg/kg dry	8.6	4.8	1	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 8.6		µg/kg dry	8.6	4.2	1	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	**5,530**	E	µg/kg dry	8.6	3.6	1	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	**52.0**		µg/kg dry	8.6	7.1	1	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 8.6		µg/kg dry	8.6	4.4	1	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 8.6		µg/kg dry	8.6	4.3	1	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 8.6		µg/kg dry	8.6	3.4	1	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 8.6		µg/kg dry	8.6	5.3	1	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 8.6		µg/kg dry	8.6	4.7	1	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 8.6		µg/kg dry	8.6	2.4	1	"	"	"	"	"	
100-41-4	Ethylbenzene	< 8.6		µg/kg dry	8.6	5.2	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-19 7-9' SB42546-11	1753-03-01	Soil	12-Jan-12 13:00	16-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds													
Prepared by method SW846 5035A Soil (low level)							Initial weight: 4.59 g						
87-68-3	Hexachlorobutadiene	< 8.6		µg/kg dry	8.6	7.4	1	SW846 8260C	18-Jan-12	19-Jan-12	JRO	1201366	
591-78-6	2-Hexanone (MBK)	< 85.5		µg/kg dry	85.5	21.8	1	"	"	"	"	"	
98-82-8	Isopropylbenzene	< 8.6		µg/kg dry	8.6	4.3	1	"	"	"	"	"	
99-87-6	4-Isopropyltoluene	< 8.6		µg/kg dry	8.6	3.5	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 8.6		µg/kg dry	8.6	6.2	1	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 85.5		µg/kg dry	85.5	27.8	1	"	"	"	"	"	
75-09-2	Methylene chloride	< 17.1		µg/kg dry	17.1	4.3	1	"	"	"	"	"	
91-20-3	Naphthalene	< 8.6		µg/kg dry	8.6	5.3	1	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 8.6		µg/kg dry	8.6	5.1	1	"	"	"	"	"	
100-42-5	Styrene	< 8.6		µg/kg dry	8.6	6.3	1	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 8.6		µg/kg dry	8.6	8.2	1	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 8.6		µg/kg dry	8.6	6.5	1	"	"	"	"	"	
127-18-4	Tetrachloroethene	**2,250**	E	µg/kg dry	8.6	4.9	1	"	"	"	"	"	
108-88-3	Toluene	< 8.6		µg/kg dry	8.6	7.7	1	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 8.6		µg/kg dry	8.6	7.4	1	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 8.6		µg/kg dry	8.6	6.4	1	"	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 8.6		µg/kg dry	8.6	6.1	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 8.6		µg/kg dry	8.6	6.9	1	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 8.6		µg/kg dry	8.6	7.4	1	"	"	"	"	"	
79-01-6	Trichloroethene	**12,200**	E	µg/kg dry	8.6	6.6	1	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 8.6		µg/kg dry	8.6	3.5	1	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 8.6		µg/kg dry	8.6	3.9	1	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 8.6		µg/kg dry	8.6	2.8	1	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 8.6		µg/kg dry	8.6	8.5	1	"	"	"	"	"	
75-01-4	Vinyl chloride	< 8.6		µg/kg dry	8.6	8.0	1	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 17.1		µg/kg dry	17.1	16.6	1	"	"	"	"	"	
95-47-6	o-Xylene	< 8.6		µg/kg dry	8.6	5.8	1	"	"	"	"	"	
109-99-9	Tetrahydrofuran	< 17.1		µg/kg dry	17.1	15.8	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 8.6		µg/kg dry	8.6	8.0	1	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	< 8.6		µg/kg dry	8.6	6.7	1	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 8.6		µg/kg dry	8.6	3.0	1	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 8.6		µg/kg dry	8.6	2.8	1	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 85.5		µg/kg dry	85.5	48.4	1	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 171		µg/kg dry	171	140	1	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-buten e	< 42.8		µg/kg dry	42.8	21.9	1	"	"	"	"	"	
64-17-5	Ethanol	< 3420		µg/kg dry	3420	716	1	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*97*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*102*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*115*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*105*			*70-130 %*			"	"	"	"	"	
Re-analysis of Volatile Organic Compounds			GS1										

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Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-19 7-9' SB42546-11	1753-03-01	Soil	12-Jan-12 13:00	16-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Re-analysis of Volatile Organic Compounds Prepared by method SW846 5030 Soil (high level)			GS1				Initial weight: 7.36 g						
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 588		µg/kg dry	588	392	200	SW846 8260C	20-Jan-12	20-Jan-12	naa	1201627	
67-64-1	Acetone	< 5880		µg/kg dry	5880	4420	200	"	"	"	"	"	
107-13-1	Acrylonitrile	< 588		µg/kg dry	588	527	200	"	"	"	"	"	
71-43-2	Benzene	< 588		µg/kg dry	588	309	200	"	"	"	"	"	
108-86-1	Bromobenzene	< 588		µg/kg dry	588	375	200	"	"	"	"	"	
74-97-5	Bromochloromethane	< 588		µg/kg dry	588	193	200	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 588		µg/kg dry	588	222	200	"	"	"	"	"	
75-25-2	Bromoform	< 588		µg/kg dry	588	407	200	"	"	"	"	"	
74-83-9	Bromomethane	< 1180		µg/kg dry	1180	1060	200	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	< 5880		µg/kg dry	5880	5050	200	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 588		µg/kg dry	588	294	200	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 588		µg/kg dry	588	571	200	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 588		µg/kg dry	588	425	200	"	"	"	"	"	
75-15-0	Carbon disulfide	< 1180		µg/kg dry	1180	841	200	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 588		µg/kg dry	588	585	200	"	"	"	"	"	
108-90-7	Chlorobenzene	< 588		µg/kg dry	588	329	200	"	"	"	"	"	
75-00-3	Chloroethane	< 1180		µg/kg dry	1180	833	200	"	"	"	"	"	
67-66-3	Chloroform	< 588		µg/kg dry	588	288	200	"	"	"	"	"	
74-87-3	Chloromethane	< 1180		µg/kg dry	1180	296	200	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 588		µg/kg dry	588	358	200	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 588		µg/kg dry	588	527	200	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	< 1180		µg/kg dry	1180	1110	200	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 588		µg/kg dry	588	282	200	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 588		µg/kg dry	588	365	200	"	"	"	"	"	
74-95-3	Dibromomethane	< 588		µg/kg dry	588	587	200	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 588		µg/kg dry	588	474	200	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 588		µg/kg dry	588	585	200	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 588		µg/kg dry	588	397	200	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 1180		µg/kg dry	1180	992	200	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 588		µg/kg dry	588	537	200	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 588		µg/kg dry	588	329	200	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 588		µg/kg dry	588	292	200	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	**8,810**		µg/kg dry	588	247	200	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 588		µg/kg dry	588	488	200	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 588		µg/kg dry	588	299	200	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 588		µg/kg dry	588	296	200	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 588		µg/kg dry	588	237	200	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 588		µg/kg dry	588	363	200	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 588		µg/kg dry	588	321	200	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 588		µg/kg dry	588	166	200	"	"	"	"	"	
100-41-4	Ethylbenzene	< 588		µg/kg dry	588	358	200	"	"	"	"	"	
87-68-3	Hexachlorobutadiene	< 588		µg/kg dry	588	507	200	"	"	"	"	"	
591-78-6	2-Hexanone (MBK)	< 5880		µg/kg dry	5880	1500	200	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-19 7-9' SB42546-11	1753-03-01	Soil	12-Jan-12 13:00	16-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Re-analysis of Volatile Organic Compounds Prepared by method SW846 5030 Soil (high level)			GS1				Initial weight: 7.36 g						
98-82-8	Isopropylbenzene	< 588		µg/kg dry	588	295	200	SW846 8260C	20-Jan-12	20-Jan-12	naa	1201627	
99-87-6	4-Isopropyltoluene	< 588		µg/kg dry	588	244	200	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 588		µg/kg dry	588	428	200	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 5880		µg/kg dry	5880	1910	200	"	"	"	"	"	
75-09-2	Methylene chloride	< 1180		µg/kg dry	1180	299	200	"	"	"	"	"	
91-20-3	Naphthalene	< 588		µg/kg dry	588	365	200	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 588		µg/kg dry	588	353	200	"	"	"	"	"	
100-42-5	Styrene	< 588		µg/kg dry	588	435	200	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 588		µg/kg dry	588	565	200	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 588		µg/kg dry	588	447	200	"	"	"	"	"	
127-18-4	Tetrachloroethene	**3,570**		µg/kg dry	588	337	200	"	"	"	"	"	
108-88-3	Toluene	< 588		µg/kg dry	588	527	200	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 588		µg/kg dry	588	509	200	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 588		µg/kg dry	588	442	200	"	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 588		µg/kg dry	588	417	200	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 588		µg/kg dry	588	471	200	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 588		µg/kg dry	588	506	200	"	"	"	"	"	
79-01-6	Trichloroethene	**43,100**		µg/kg dry	588	451	200	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 588		µg/kg dry	588	238	200	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 588		µg/kg dry	588	266	200	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 588		µg/kg dry	588	192	200	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 588		µg/kg dry	588	583	200	"	"	"	"	"	
75-01-4	Vinyl chloride	< 588		µg/kg dry	588	552	200	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 1180		µg/kg dry	1180	1140	200	"	"	"	"	"	
95-47-6	o-Xylene	< 588		µg/kg dry	588	402	200	"	"	"	"	"	
109-99-9	Tetrahydrofuran	< 1180		µg/kg dry	1180	1090	200	"	"	"	"	"	
60-29-7	Ethyl ether	< 588		µg/kg dry	588	549	200	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	< 588		µg/kg dry	588	464	200	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 588		µg/kg dry	588	205	200	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 588		µg/kg dry	588	189	200	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 5880		µg/kg dry	5880	3330	200	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 11800		µg/kg dry	11800	9630	200	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-buten e	< 2940		µg/kg dry	2940	1510	200	"	"	"	"	"	
64-17-5	Ethanol	< 235000		µg/kg dry	235000	49200	200	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*99*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*98*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*112*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*90*			*70-130 %*			"	"	"	"	"	
VPH Aliphatic/Aromatic Carbon Ranges Prepared by method VPH - EPA 5030B			VC10				Initial weight: 7.36 g						

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-19 7-9' SB42546-11	1753-03-01	Soil	12-Jan-12 13:00	16-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
VPH Aliphatic/Aromatic Carbon Ranges			VC10										
Prepared by method VPH - EPA 5030B							Initial weight: 7.36 g						
	C5-C8 Aliphatic Hydrocarbons	16.4		mg/kg dry	2.21	0.207	50	MADEP VPH 5/2004 Rev. 1.1	24-Jan-12	25-Jan-12	mp	1201825	
	C9-C12 Aliphatic Hydrocarbons	< 0.735		mg/kg dry	0.735	0.107	50	"	"	"	"	"	
	C9-C10 Aromatic Hydrocarbons	< 0.735		mg/kg dry	0.735	0.0190	50	"	"	"	"	"	
	Unadjusted C5-C8 Aliphatic Hydrocarbons	16.4		mg/kg dry	2.21	0.169	50	"	"	"	"	"	
	Unadjusted C9-C12 Aliphatic Hydrocarbons	< 0.735		mg/kg dry	0.735	0.101	50	"	"	"	"	"	
VPH Target Analytes			VC10										
Prepared by method VPH - EPA 5030B							Initial weight: 7.36 g						
71-43-2	Benzene	< 0.1		mg/kg dry	0.1	0.03	50	"	"	"	"	"	
100-41-4	Ethylbenzene	< 0.1		mg/kg dry	0.1	0.04	50	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 0.1		mg/kg dry	0.1	0.02	50	"	"	"	"	"	
91-20-3	Naphthalene	< 0.1		mg/kg dry	0.1	0.03	50	"	"	"	"	"	
108-88-3	Toluene	< 0.1		mg/kg dry	0.1	0.03	50	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 0.3		mg/kg dry	0.3	0.09	50	"	"	"	"	"	
95-47-6	o-Xylene	< 0.1		mg/kg dry	0.1	0.04	50	"	"	"	"	"	
Surrogate recoveries:													
615-59-8	*2,5-Dibromotoluene (FID)*	*103*			*70-130 %*			"	"	"	"	"	
615-59-8	*2,5-Dibromotoluene (PID)*	*91*			*70-130 %*			"	"	"	"	"	
Extractable Petroleum Hydrocarbons													
EPH Aliphatic/Aromatic Ranges													
Prepared by method SW846 3545A													
	C9-C18 Aliphatic Hydrocarbons	< 12.8		mg/kg dry	12.8	1.88	1	MADEP EPH 5/2004 R	18-Jan-12	24-Jan-12	MP	1201380	
	C19-C36 Aliphatic Hydrocarbons	< 12.8		mg/kg dry	12.8	6.27	1	"	"	"	"	"	
	C11-C22 Aromatic Hydrocarbons	< 12.8		mg/kg dry	12.8	4.64	1	"	"	"	"	"	
	Unadjusted C11-C22 Aromatic Hydrocarbons	< 12.8		mg/kg dry	12.8	4.64	1	"	"	"	"	"	
	Total Petroleum Hydrocarbons	< 12.8		mg/kg dry	12.8	12.8	1	"	"	"	"	"	
	Unadjusted Total Petroleum Hydrocarbons	< 12.8		mg/kg dry	12.8	12.8	1	"	"	"	"	"	
EPH Target PAH Analytes													
Prepared by method SW846 3545A													
91-20-3	Naphthalene	< 0.427		mg/kg dry	0.427	0.223	1	"	"	"	"	"	
91-57-6	2-Methylnaphthalene	< 0.427		mg/kg dry	0.427	0.223	1	"	"	"	"	"	
208-96-8	Acenaphthylene	< 0.427		mg/kg dry	0.427	0.250	1	"	"	"	"	"	
83-32-9	Acenaphthene	< 0.427		mg/kg dry	0.427	0.249	1	"	"	"	"	"	
86-73-7	Fluorene	< 0.427		mg/kg dry	0.427	0.252	1	"	"	"	"	"	
85-01-8	Phenanthrene	< 0.427		mg/kg dry	0.427	0.291	1	"	"	"	"	"	
120-12-7	Anthracene	< 0.427		mg/kg dry	0.427	0.316	1	"	"	"	"	"	
206-44-0	Fluoranthene	< 0.427		mg/kg dry	0.427	0.286	1	"	"	"	"	"	
129-00-0	Pyrene	< 0.427		mg/kg dry	0.427	0.308	1	"	"	"	"	"	
56-55-3	Benzo (a) anthracene	< 0.427		mg/kg dry	0.427	0.309	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-19 7-9' SB42546-11	1753-03-01	Soil	12-Jan-12 13:00	16-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Extractable Petroleum Hydrocarbons													
EPH Target PAH Analytes Prepared by method SW846 3545A													
218-01-9	Chrysene	< 0.427		mg/kg dry	0.427	0.332	1	MADEP EPH 5/2004 R	18-Jan-12	24-Jan-12	MP	1201380	
205-99-2	Benzo (b) fluoranthene	< 0.427		mg/kg dry	0.427	0.380	1	"	"	"	"	"	
207-08-9	Benzo (k) fluoranthene	< 0.427		mg/kg dry	0.427	0.356	1	"	"	"	"	"	
50-32-8	Benzo (a) pyrene	< 0.427		mg/kg dry	0.427	0.287	1	"	"	"	"	"	
193-39-5	Indeno (1,2,3-cd) pyrene	< 0.427		mg/kg dry	0.427	0.379	1	"	"	"	"	"	
53-70-3	Dibenzo (a,h) anthracene	< 0.427		mg/kg dry	0.427	0.309	1	"	"	"	"	"	
191-24-2	Benzo (g,h,i) perylene	< 0.427		mg/kg dry	0.427	0.320	1	"	"	"	"	"	
Surrogate recoveries:													
3386-33-2	*1-Chlorooctadecane*	*53*			*40-140 %*			"	"	"	"	"	
84-15-1	*Ortho-Terphenyl*	*52*			*40-140 %*			"	"	"	"	"	
321-60-8	*2-Fluorobiphenyl*	*60*			*40-140 %*			"	"	"	"	"	
General Chemistry Parameters													
	% Solids	**77.1**		%			1	SM2540 G Mod.	17-Jan-12	17-Jan-12	DT	1201291	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-20 1-3' SB42546-12	1753-03-01	Soil	12-Jan-12 13:25	16-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
	VOC Extraction	**Lab extracted**		N/A			1	VOC Soil Extraction	17-Jan-12	17-Jan-12	BD	1201301	
Re-analysis of Volatile Organic Compounds			GS1										
Prepared by method SW846 5030 Soil (high level)							Initial weight: 15.12 g						
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 2450		µg/kg dry	2450	1640	2000	SW846 8260C	23-Jan-12	23-Jan-12	naa	1201751	
67-64-1	Acetone	< 24500		µg/kg dry	24500	18400	2000	"	"	"	"	"	
107-13-1	Acrylonitrile	< 2450		µg/kg dry	2450	2200	2000	"	"	"	"	"	
71-43-2	Benzene	< 2450		µg/kg dry	2450	1290	2000	"	"	"	"	"	
108-86-1	Bromobenzene	< 2450		µg/kg dry	2450	1570	2000	"	"	"	"	"	
74-97-5	Bromochloromethane	< 2450		µg/kg dry	2450	805	2000	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 2450		µg/kg dry	2450	927	2000	"	"	"	"	"	
75-25-2	Bromoform	< 2450		µg/kg dry	2450	1700	2000	"	"	"	"	"	
74-83-9	Bromomethane	< 4910		µg/kg dry	4910	4420	2000	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	< 24500		µg/kg dry	24500	21000	2000	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 2450		µg/kg dry	2450	1220	2000	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 2450		µg/kg dry	2450	2380	2000	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 2450		µg/kg dry	2450	1770	2000	"	"	"	"	"	
75-15-0	Carbon disulfide	< 4910		µg/kg dry	4910	3510	2000	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 2450		µg/kg dry	2450	2440	2000	"	"	"	"	"	
108-90-7	Chlorobenzene	< 2450		µg/kg dry	2450	1370	2000	"	"	"	"	"	
75-00-3	Chloroethane	< 4910		µg/kg dry	4910	3470	2000	"	"	"	"	"	
67-66-3	Chloroform	< 2450		µg/kg dry	2450	1200	2000	"	"	"	"	"	
74-87-3	Chloromethane	< 4910		µg/kg dry	4910	1230	2000	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 2450		µg/kg dry	2450	1490	2000	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 2450		µg/kg dry	2450	2200	2000	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	< 4910		µg/kg dry	4910	4640	2000	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 2450		µg/kg dry	2450	1180	2000	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 2450		µg/kg dry	2450	1520	2000	"	"	"	"	"	
74-95-3	Dibromomethane	< 2450		µg/kg dry	2450	2450	2000	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 2450		µg/kg dry	2450	1980	2000	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 2450		µg/kg dry	2450	2440	2000	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 2450		µg/kg dry	2450	1660	2000	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 4910		µg/kg dry	4910	4140	2000	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 2450		µg/kg dry	2450	2240	2000	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 2450		µg/kg dry	2450	1370	2000	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 2450		µg/kg dry	2450	1220	2000	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	**15,300**		µg/kg dry	2450	1030	2000	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 2450		µg/kg dry	2450	2040	2000	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 2450		µg/kg dry	2450	1250	2000	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 2450		µg/kg dry	2450	1230	2000	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 2450		µg/kg dry	2450	989	2000	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 2450		µg/kg dry	2450	1510	2000	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 2450		µg/kg dry	2450	1340	2000	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 2450		µg/kg dry	2450	692	2000	"	"	"	"	"	
100-41-4	Ethylbenzene	< 2450		µg/kg dry	2450	1490	2000	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-20 1-3' SB42546-12	1753-03-01	Soil	12-Jan-12 13:25	16-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Re-analysis of Volatile Organic Compounds Prepared by method SW846 5030 Soil (high level)			GS1				Initial weight: 15.12 g						
87-68-3	Hexachlorobutadiene	< 2450		µg/kg dry	2450	2110	2000	SW846 8260C	23-Jan-12	23-Jan-12	naa	1201751	
591-78-6	2-Hexanone (MBK)	< 24500		µg/kg dry	24500	6260	2000	"	"	"	"	"	
98-82-8	Isopropylbenzene	< 2450		µg/kg dry	2450	1230	2000	"	"	"	"	"	
99-87-6	4-Isopropyltoluene	< 2450		µg/kg dry	2450	1020	2000	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 2450		µg/kg dry	2450	1780	2000	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 24500		µg/kg dry	24500	7980	2000	"	"	"	"	"	
75-09-2	Methylene chloride	< 4910		µg/kg dry	4910	1250	2000	"	"	"	"	"	
91-20-3	Naphthalene	< 2450		µg/kg dry	2450	1520	2000	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 2450		µg/kg dry	2450	1470	2000	"	"	"	"	"	
100-42-5	Styrene	< 2450		µg/kg dry	2450	1820	2000	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 2450		µg/kg dry	2450	2360	2000	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 2450		µg/kg dry	2450	1860	2000	"	"	"	"	"	
127-18-4	Tetrachloroethene	< 2450		µg/kg dry	2450	1400	2000	"	"	"	"	"	
108-88-3	Toluene	< 2450		µg/kg dry	2450	2200	2000	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 2450		µg/kg dry	2450	2120	2000	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 2450		µg/kg dry	2450	1850	2000	"	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 2450		µg/kg dry	2450	1740	2000	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 2450		µg/kg dry	2450	1970	2000	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 2450		µg/kg dry	2450	2110	2000	"	"	"	"	"	
79-01-6	Trichloroethene	**128,000**		µg/kg dry	2450	1880	2000	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 2450		µg/kg dry	2450	991	2000	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 2450		µg/kg dry	2450	1110	2000	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 2450		µg/kg dry	2450	802	2000	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 2450		µg/kg dry	2450	2430	2000	"	"	"	"	"	
75-01-4	Vinyl chloride	< 2450		µg/kg dry	2450	2300	2000	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 4910		µg/kg dry	4910	4760	2000	"	"	"	"	"	
95-47-6	o-Xylene	< 2450		µg/kg dry	2450	1680	2000	"	"	"	"	"	
109-99-9	Tetrahydrofuran	< 4910		µg/kg dry	4910	4540	2000	"	"	"	"	"	
60-29-7	Ethyl ether	< 2450		µg/kg dry	2450	2290	2000	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	< 2450		µg/kg dry	2450	1940	2000	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 2450		µg/kg dry	2450	856	2000	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 2450		µg/kg dry	2450	790	2000	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 24500		µg/kg dry	24500	13900	2000	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 49100		µg/kg dry	49100	40200	2000	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-buten e	< 12300		µg/kg dry	12300	6280	2000	"	"	"	"	"	
64-17-5	Ethanol	< 981000		µg/kg dry	981000	205000	2000	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*99*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*97*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*92*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*93*			*70-130 %*			"	"	"	"	"	
Total Metals by EPA 6000/7000 Series Methods													

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-20 1-3' SB42546-12	1753-03-01	Soil	12-Jan-12 13:25	16-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Total Metals by EPA 6000/7000 Series Methods													
7440-22-4	Silver	**33.4**		mg/kg dry	1.61	0.247	1	SW846 6010C	19-Jan-12	20-Jan-12	EDT	1201419	
7429-90-5	Aluminum	**4,700**		mg/kg dry	5.35	0.749	1	"	"	"	"	"	
7440-38-2	Arsenic	**37.5**		mg/kg dry	1.61	0.258	1	"	"	"	"	"	
7440-39-3	Barium	**83.9**		mg/kg dry	1.07	0.259	1	"	"	22-Jan-12	"	"	
7440-41-7	Beryllium	< 0.535		mg/kg dry	0.535	0.172	1	"	"	"	"	"	
7440-70-2	Calcium	**2,250**		mg/kg dry	26.8	6.70	1	"	"	20-Jan-12	"	"	
7440-43-9	Cadmium	< 0.535		mg/kg dry	0.535	0.0591	1	"	"	"	"	"	
7440-48-4	Cobalt	**4.86**		mg/kg dry	1.07	0.119	1	"	"	"	"	"	
7440-47-3	Chromium	**12.5**		mg/kg dry	1.07	0.390	1	"	"	"	"	"	
7440-50-8	Copper	**344**		mg/kg dry	1.07	0.120	1	"	"	"	"	"	
7439-89-6	Iron	**25,700**		mg/kg dry	4.28	0.789	1	"	"	22-Jan-12	"	"	
7439-97-6	Mercury	**0.334**		mg/kg dry	0.0308	0.0063	1	SW846 7471B	24-Jan-12	24-Jan-12	AMT	1201420	
7440-09-7	Potassium	**842**		mg/kg dry	53.5	13.4	1	SW846 6010C	19-Jan-12	20-Jan-12	EDT	1201419	
7439-95-4	Magnesium	**2,000**		mg/kg dry	5.35	0.152	1	"	"	"	"	"	
7439-96-5	Manganese	**239**		mg/kg dry	1.07	0.0579	1	"	"	"	"	"	
7440-23-5	Sodium	**152**		mg/kg dry	26.8	3.39	1	"	"	"	"	"	
7440-02-0	Nickel	**14.8**		mg/kg dry	1.07	0.0737	1	"	"	"	"	"	
7439-92-1	Lead	**3,760**		mg/kg dry	1.61	0.190	1	"	"	"	"	"	
7440-36-0	Antimony	**113**		mg/kg dry	5.35	0.235	1	"	"	"	"	"	
7782-49-2	Selenium	< 2.68	R01	mg/kg dry	2.68	0.237	1	"	"	"	"	"	
7440-28-0	Thallium	< 3.21		mg/kg dry	3.21	0.264	1	"	"	"	"	"	
7440-62-2	Vanadium	**28.0**		mg/kg dry	1.61	0.281	1	"	"	"	"	"	
7440-66-6	Zinc	**56.9**		mg/kg dry	1.07	0.232	1	"	"	"	"	"	
General Chemistry Parameters													
	% Solids	**89.5**		%			1	SM2540 G Mod.	17-Jan-12	17-Jan-12	DT	1201291	

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201366 - SW846 5035A Soil (low level)										
Blank (1201366-BLK1)					Prepared & Analyzed: 18-Jan-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 5.0		µg/kg wet	5.0						
Acetone	< 50.0		µg/kg wet	50.0						
Acrylonitrile	< 5.0		µg/kg wet	5.0						
Benzene	< 5.0		µg/kg wet	5.0						
Bromobenzene	< 5.0		µg/kg wet	5.0						
Bromochloromethane	< 5.0		µg/kg wet	5.0						
Bromodichloromethane	< 5.0		µg/kg wet	5.0						
Bromoform	< 5.0		µg/kg wet	5.0						
Bromomethane	< 10.0		µg/kg wet	10.0						
2-Butanone (MEK)	< 50.0		µg/kg wet	50.0						
n-Butylbenzene	< 5.0		µg/kg wet	5.0						
sec-Butylbenzene	< 5.0		µg/kg wet	5.0						
tert-Butylbenzene	< 5.0		µg/kg wet	5.0						
Carbon disulfide	< 10.0		µg/kg wet	10.0						
Carbon tetrachloride	< 5.0		µg/kg wet	5.0						
Chlorobenzene	< 5.0		µg/kg wet	5.0						
Chloroethane	< 10.0		µg/kg wet	10.0						
Chloroform	< 5.0		µg/kg wet	5.0						
Chloromethane	< 10.0		µg/kg wet	10.0						
2-Chlorotoluene	< 5.0		µg/kg wet	5.0						
4-Chlorotoluene	< 5.0		µg/kg wet	5.0						
1,2-Dibromo-3-chloropropane	< 10.0		µg/kg wet	10.0						
Dibromochloromethane	< 5.0		µg/kg wet	5.0						
1,2-Dibromoethane (EDB)	< 5.0		µg/kg wet	5.0						
Dibromomethane	< 5.0		µg/kg wet	5.0						
1,2-Dichlorobenzene	< 5.0		µg/kg wet	5.0						
1,3-Dichlorobenzene	< 5.0		µg/kg wet	5.0						
1,4-Dichlorobenzene	< 5.0		µg/kg wet	5.0						
Dichlorodifluoromethane (Freon12)	< 10.0		µg/kg wet	10.0						
1,1-Dichloroethane	< 5.0		µg/kg wet	5.0						
1,2-Dichloroethane	< 5.0		µg/kg wet	5.0						
1,1-Dichloroethene	< 5.0		µg/kg wet	5.0						
cis-1,2-Dichloroethene	< 5.0		µg/kg wet	5.0						
trans-1,2-Dichloroethene	< 5.0		µg/kg wet	5.0						
1,2-Dichloropropane	< 5.0		µg/kg wet	5.0						
1,3-Dichloropropane	< 5.0		µg/kg wet	5.0						
2,2-Dichloropropane	< 5.0		µg/kg wet	5.0						
1,1-Dichloropropene	< 5.0		µg/kg wet	5.0						
cis-1,3-Dichloropropene	< 5.0		µg/kg wet	5.0						
trans-1,3-Dichloropropene	< 5.0		µg/kg wet	5.0						
Ethylbenzene	< 5.0		µg/kg wet	5.0						
Hexachlorobutadiene	< 5.0		µg/kg wet	5.0						
2-Hexanone (MBK)	< 50.0		µg/kg wet	50.0						
Isopropylbenzene	< 5.0		µg/kg wet	5.0						
4-Isopropyltoluene	< 5.0		µg/kg wet	5.0						
Methyl tert-butyl ether	< 5.0		µg/kg wet	5.0						
4-Methyl-2-pentanone (MIBK)	< 50.0		µg/kg wet	50.0						
Methylene chloride	< 10.0		µg/kg wet	10.0						
Naphthalene	< 5.0		µg/kg wet	5.0						
n-Propylbenzene	< 5.0		µg/kg wet	5.0						
Styrene	< 5.0		µg/kg wet	5.0						
1,1,1,2-Tetrachloroethane	< 5.0		µg/kg wet	5.0						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201366 - SW846 5035A Soil (low level)										
Blank (1201366-BLK1)					Prepared & Analyzed: 18-Jan-12					
1,1,2,2-Tetrachloroethane	< 5.0		µg/kg wet	5.0						
Tetrachloroethene	< 5.0		µg/kg wet	5.0						
Toluene	< 5.0		µg/kg wet	5.0						
1,2,3-Trichlorobenzene	< 5.0		µg/kg wet	5.0						
1,2,4-Trichlorobenzene	< 5.0		µg/kg wet	5.0						
1,3,5-Trichlorobenzene	< 5.0		µg/kg wet	5.0						
1,1,1-Trichloroethane	< 5.0		µg/kg wet	5.0						
1,1,2-Trichloroethane	< 5.0		µg/kg wet	5.0						
Trichloroethene	< 5.0		µg/kg wet	5.0						
Trichlorofluoromethane (Freon 11)	< 5.0		µg/kg wet	5.0						
1,2,3-Trichloropropane	< 5.0		µg/kg wet	5.0						
1,2,4-Trimethylbenzene	< 5.0		µg/kg wet	5.0						
1,3,5-Trimethylbenzene	< 5.0		µg/kg wet	5.0						
Vinyl chloride	< 5.0		µg/kg wet	5.0						
m,p-Xylene	< 10.0		µg/kg wet	10.0						
o-Xylene	< 5.0		µg/kg wet	5.0						
Tetrahydrofuran	< 10.0		µg/kg wet	10.0						
Ethyl ether	< 5.0		µg/kg wet	5.0						
Tert-amyl methyl ether	< 5.0		µg/kg wet	5.0						
Ethyl tert-butyl ether	< 5.0		µg/kg wet	5.0						
Di-isopropyl ether	< 5.0		µg/kg wet	5.0						
Tert-Butanol / butyl alcohol	< 50.0		µg/kg wet	50.0						
1,4-Dioxane	< 100		µg/kg wet	100						
trans-1,4-Dichloro-2-butene	< 25.0		µg/kg wet	25.0						
Ethanol	< 2000		µg/kg wet	2000						
Surrogate: 4-Bromofluorobenzene	*49.8*		µg/kg wet		*50.0*		*100*	*70-130*		
Surrogate: Toluene-d8	*50.8*		µg/kg wet		*50.0*		*102*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*61.2*		µg/kg wet		*50.0*		*122*	*70-130*		
Surrogate: Dibromofluoromethane	*53.6*		µg/kg wet		*50.0*		*107*	*70-130*		
LCS (1201366-BS1)					Prepared & Analyzed: 18-Jan-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**17.8**		µg/kg wet		20.0		89	70-130		
Acetone	**24.8**		µg/kg wet		20.0		124	70-130		
Acrylonitrile	**20.1**		µg/kg wet		20.0		100	70-130		
Benzene	**19.4**		µg/kg wet		20.0		97	70-130		
Bromobenzene	**19.1**		µg/kg wet		20.0		95	70-130		
Bromochloromethane	**19.7**		µg/kg wet		20.0		98	70-130		
Bromodichloromethane	**19.6**		µg/kg wet		20.0		98	70-130		
Bromoform	**19.5**		µg/kg wet		20.0		97	70-130		
Bromomethane	**18.2**		µg/kg wet		20.0		91	70-130		
2-Butanone (MEK)	**18.5**		µg/kg wet		20.0		92	70-130		
n-Butylbenzene	**17.5**		µg/kg wet		20.0		87	70-130		
sec-Butylbenzene	**19.0**		µg/kg wet		20.0		95	70-130		
tert-Butylbenzene	**19.3**		µg/kg wet		20.0		96	70-130		
Carbon disulfide	**17.9**		µg/kg wet		20.0		89	70-130		
Carbon tetrachloride	**18.8**		µg/kg wet		20.0		94	70-130		
Chlorobenzene	**18.7**		µg/kg wet		20.0		94	70-130		
Chloroethane	**19.2**		µg/kg wet		20.0		96	70-130		
Chloroform	**18.6**		µg/kg wet		20.0		93	70-130		
Chloromethane	**18.6**		µg/kg wet		20.0		93	70-130		
2-Chlorotoluene	**17.9**		µg/kg wet		20.0		90	70-130		
4-Chlorotoluene	**19.1**		µg/kg wet		20.0		95	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201366 - SW846 5035A Soil (low level)										
LCS (1201366-BS1)					Prepared & Analyzed: 18-Jan-12					
1,2-Dibromo-3-chloropropane	**21.5**		µg/kg wet		20.0		107	70-130		
Dibromochloromethane	**19.8**		µg/kg wet		20.0		99	70-130		
1,2-Dibromoethane (EDB)	**20.4**		µg/kg wet		20.0		102	70-130		
Dibromomethane	**20.2**		µg/kg wet		20.0		101	70-130		
1,2-Dichlorobenzene	**19.2**		µg/kg wet		20.0		96	70-130		
1,3-Dichlorobenzene	**18.6**		µg/kg wet		20.0		93	70-130		
1,4-Dichlorobenzene	**18.3**		µg/kg wet		20.0		92	70-130		
Dichlorodifluoromethane (Freon12)	**17.5**		µg/kg wet		20.0		87	70-130		
1,1-Dichloroethane	**19.4**		µg/kg wet		20.0		97	70-130		
1,2-Dichloroethane	**19.5**		µg/kg wet		20.0		98	70-130		
1,1-Dichloroethene	**19.1**		µg/kg wet		20.0		95	70-130		
cis-1,2-Dichloroethene	**19.4**		µg/kg wet		20.0		97	70-130		
trans-1,2-Dichloroethene	**18.8**		µg/kg wet		20.0		94	70-130		
1,2-Dichloropropane	**19.9**		µg/kg wet		20.0		100	70-130		
1,3-Dichloropropane	**20.2**		µg/kg wet		20.0		101	70-130		
2,2-Dichloropropane	**16.6**		µg/kg wet		20.0		83	70-130		
1,1-Dichloropropene	**19.0**		µg/kg wet		20.0		95	70-130		
cis-1,3-Dichloropropene	**19.2**		µg/kg wet		20.0		96	70-130		
trans-1,3-Dichloropropene	**19.0**		µg/kg wet		20.0		95	70-130		
Ethylbenzene	**19.1**		µg/kg wet		20.0		95	70-130		
Hexachlorobutadiene	**16.2**		µg/kg wet		20.0		81	70-130		
2-Hexanone (MBK)	**21.0**		µg/kg wet		20.0		105	70-130		
Isopropylbenzene	**18.7**		µg/kg wet		20.0		93	70-130		
4-Isopropyltoluene	**18.4**		µg/kg wet		20.0		92	70-130		
Methyl tert-butyl ether	**20.7**		µg/kg wet		20.0		103	70-130		
4-Methyl-2-pentanone (MIBK)	**26.1**		µg/kg wet		20.0		131	70-130		
Methylene chloride	**18.4**		µg/kg wet		20.0		92	70-130		
Naphthalene	**18.6**		µg/kg wet		20.0		93	70-130		
n-Propylbenzene	**18.9**		µg/kg wet		20.0		95	70-130		
Styrene	**19.8**		µg/kg wet		20.0		99	70-130		
1,1,1,2-Tetrachloroethane	**19.1**		µg/kg wet		20.0		95	70-130		
1,1,2,2-Tetrachloroethane	**20.8**		µg/kg wet		20.0		104	70-130		
Tetrachloroethene	**18.2**		µg/kg wet		20.0		91	70-130		
Toluene	**18.9**		µg/kg wet		20.0		94	70-130		
1,2,3-Trichlorobenzene	**18.6**		µg/kg wet		20.0		93	70-130		
1,2,4-Trichlorobenzene	**17.0**		µg/kg wet		20.0		85	70-130		
1,3,5-Trichlorobenzene	**18.1**		µg/kg wet		20.0		90	70-130		
1,1,1-Trichloroethane	**18.9**		µg/kg wet		20.0		95	70-130		
1,1,2-Trichloroethane	**20.5**		µg/kg wet		20.0		103	70-130		
Trichloroethene	**19.0**		µg/kg wet		20.0		95	70-130		
Trichlorofluoromethane (Freon 11)	**18.7**		µg/kg wet		20.0		94	70-130		
1,2,3-Trichloropropane	**21.1**		µg/kg wet		20.0		106	70-130		
1,2,4-Trimethylbenzene	**18.6**		µg/kg wet		20.0		93	70-130		
1,3,5-Trimethylbenzene	**19.2**		µg/kg wet		20.0		96	70-130		
Vinyl chloride	**19.6**		µg/kg wet		20.0		98	70-130		
m,p-Xylene	**38.7**		µg/kg wet		40.0		97	70-130		
o-Xylene	**19.4**		µg/kg wet		20.0		97	70-130		
Tetrahydrofuran	**22.3**		µg/kg wet		20.0		112	70-130		
Ethyl ether	**20.8**		µg/kg wet		20.0		104	70-130		
Tert-amyl methyl ether	**19.0**		µg/kg wet		20.0		95	70-130		
Ethyl tert-butyl ether	**20.5**		µg/kg wet		20.0		103	70-130		
Di-isopropyl ether	**20.4**		µg/kg wet		20.0		102	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201366 - SW846 5035A Soil (low level)										
LCS (1201366-BS1)					Prepared & Analyzed: 18-Jan-12					
Tert-Butanol / butyl alcohol	**222**		µg/kg wet		200		111	70-130		
1,4-Dioxane	**223**		µg/kg wet		200		111	70-130		
trans-1,4-Dichloro-2-butene	**18.3**		µg/kg wet		20.0		91	70-130		
Ethanol	**523**	QM9	µg/kg wet		400		131	70-130		
Surrogate: 4-Bromofluorobenzene	*51.8*		µg/kg wet		*50.0*		*104*	*70-130*		
Surrogate: Toluene-d8	*50.1*		µg/kg wet		*50.0*		*100*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*52.3*		µg/kg wet		*50.0*		*105*	*70-130*		
Surrogate: Dibromofluoromethane	*51.8*		µg/kg wet		*50.0*		*104*	*70-130*		
LCS Dup (1201366-BSD1)					Prepared & Analyzed: 18-Jan-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**18.1**		µg/kg wet		20.0		90	70-130	1	25
Acetone	**23.9**		µg/kg wet		20.0		119	70-130	4	50
Acrylonitrile	**19.4**		µg/kg wet		20.0		97	70-130	3	25
Benzene	**19.7**		µg/kg wet		20.0		98	70-130	2	25
Bromobenzene	**19.1**		µg/kg wet		20.0		95	70-130	0.1	25
Bromochloromethane	**19.6**		µg/kg wet		20.0		98	70-130	0.4	25
Bromodichloromethane	**19.8**		µg/kg wet		20.0		99	70-130	1	25
Bromoform	**18.7**		µg/kg wet		20.0		93	70-130	4	25
Bromomethane	**18.1**		µg/kg wet		20.0		90	70-130	0.6	50
2-Butanone (MEK)	**17.2**		µg/kg wet		20.0		86	70-130	8	50
n-Butylbenzene	**17.4**		µg/kg wet		20.0		87	70-130	0.7	25
sec-Butylbenzene	**18.5**		µg/kg wet		20.0		93	70-130	3	25
tert-Butylbenzene	**19.1**		µg/kg wet		20.0		95	70-130	1	25
Carbon disulfide	**18.2**		µg/kg wet		20.0		91	70-130	2	25
Carbon tetrachloride	**19.2**		µg/kg wet		20.0		96	70-130	2	25
Chlorobenzene	**18.7**		µg/kg wet		20.0		94	70-130	0	25
Chloroethane	**19.5**		µg/kg wet		20.0		98	70-130	2	50
Chloroform	**18.6**		µg/kg wet		20.0		93	70-130	0.05	25
Chloromethane	**18.1**		µg/kg wet		20.0		91	70-130	3	25
2-Chlorotoluene	**18.1**		µg/kg wet		20.0		90	70-130	1	25
4-Chlorotoluene	**18.7**		µg/kg wet		20.0		94	70-130	2	25
1,2-Dibromo-3-chloropropane	**20.0**		µg/kg wet		20.0		100	70-130	7	25
Dibromochloromethane	**19.4**		µg/kg wet		20.0		97	70-130	2	50
1,2-Dibromoethane (EDB)	**20.2**		µg/kg wet		20.0		101	70-130	0.8	25
Dibromomethane	**20.0**		µg/kg wet		20.0		100	70-130	1	25
1,2-Dichlorobenzene	**18.8**		µg/kg wet		20.0		94	70-130	2	25
1,3-Dichlorobenzene	**18.1**		µg/kg wet		20.0		91	70-130	3	25
1,4-Dichlorobenzene	**18.1**		µg/kg wet		20.0		90	70-130	1	25
Dichlorodifluoromethane (Freon12)	**17.4**		µg/kg wet		20.0		87	70-130	0.6	50
1,1-Dichloroethane	**19.6**		µg/kg wet		20.0		98	70-130	1	25
1,2-Dichloroethane	**19.4**		µg/kg wet		20.0		97	70-130	0.5	25
1,1-Dichloroethene	**19.1**		µg/kg wet		20.0		96	70-130	0.2	25
cis-1,2-Dichloroethene	**19.4**		µg/kg wet		20.0		97	70-130	0.4	25
trans-1,2-Dichloroethene	**19.0**		µg/kg wet		20.0		95	70-130	0.6	25
1,2-Dichloropropane	**20.0**		µg/kg wet		20.0		100	70-130	0.5	25
1,3-Dichloropropane	**19.7**		µg/kg wet		20.0		99	70-130	2	25
2,2-Dichloropropane	**16.8**		µg/kg wet		20.0		84	70-130	1	25
1,1-Dichloropropene	**19.1**		µg/kg wet		20.0		95	70-130	0.2	25
cis-1,3-Dichloropropene	**19.1**		µg/kg wet		20.0		95	70-130	0.6	25
trans-1,3-Dichloropropene	**18.9**		µg/kg wet		20.0		95	70-130	0.2	25
Ethylbenzene	**19.4**		µg/kg wet		20.0		97	70-130	2	25
Hexachlorobutadiene	**16.2**		µg/kg wet		20.0		81	70-130	0.2	50

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201366 - SW846 5035A Soil (low level)										
LCS Dup (1201366-BSD1)					Prepared & Analyzed: 18-Jan-12					
2-Hexanone (MBK)	**19.2**		µg/kg wet		20.0		96	70-130	9	25
Isopropylbenzene	**18.8**		µg/kg wet		20.0		94	70-130	0.7	25
4-Isopropyltoluene	**18.5**		µg/kg wet		20.0		92	70-130	0.5	25
Methyl tert-butyl ether	**20.3**		µg/kg wet		20.0		102	70-130	2	25
4-Methyl-2-pentanone (MIBK)	**26.8**		µg/kg wet		20.0		134	70-130	2	50
Methylene chloride	**16.2**		µg/kg wet		20.0		81	70-130	13	25
Naphthalene	**17.7**		µg/kg wet		20.0		88	70-130	5	25
n-Propylbenzene	**18.8**		µg/kg wet		20.0		94	70-130	0.8	25
Styrene	**19.6**		µg/kg wet		20.0		98	70-130	1	25
1,1,1,2-Tetrachloroethane	**19.0**		µg/kg wet		20.0		95	70-130	0.4	25
1,1,2,2-Tetrachloroethane	**19.2**		µg/kg wet		20.0		96	70-130	8	25
Tetrachloroethene	**18.2**		µg/kg wet		20.0		91	70-130	0.05	25
Toluene	**19.3**		µg/kg wet		20.0		97	70-130	2	25
1,2,3-Trichlorobenzene	**18.3**		µg/kg wet		20.0		91	70-130	2	25
1,2,4-Trichlorobenzene	**16.6**		µg/kg wet		20.0		83	70-130	2	25
1,3,5-Trichlorobenzene	**17.8**		µg/kg wet		20.0		89	70-130	1	25
1,1,1-Trichloroethane	**19.1**		µg/kg wet		20.0		95	70-130	0.7	25
1,1,2-Trichloroethane	**20.4**		µg/kg wet		20.0		102	70-130	0.9	25
Trichloroethene	**18.9**		µg/kg wet		20.0		95	70-130	0.4	25
Trichlorofluoromethane (Freon 11)	**18.9**		µg/kg wet		20.0		94	70-130	0.8	50
1,2,3-Trichloropropane	**20.2**		µg/kg wet		20.0		101	70-130	4	25
1,2,4-Trimethylbenzene	**18.1**		µg/kg wet		20.0		91	70-130	3	25
1,3,5-Trimethylbenzene	**18.7**		µg/kg wet		20.0		93	70-130	3	25
Vinyl chloride	**19.8**		µg/kg wet		20.0		99	70-130	0.8	25
m,p-Xylene	**39.3**		µg/kg wet		40.0		98	70-130	2	25
o-Xylene	**19.7**		µg/kg wet		20.0		99	70-130	2	25
Tetrahydrofuran	**21.1**		µg/kg wet		20.0		106	70-130	6	25
Ethyl ether	**20.4**		µg/kg wet		20.0		102	70-130	2	50
Tert-amyl methyl ether	**19.0**		µg/kg wet		20.0		95	70-130	0	25
Ethyl tert-butyl ether	**20.7**		µg/kg wet		20.0		103	70-130	0.8	25
Di-isopropyl ether	**20.4**		µg/kg wet		20.0		102	70-130	0.1	25
Tert-Butanol / butyl alcohol	**207**		µg/kg wet		200		104	70-130	7	25
1,4-Dioxane	**205**		µg/kg wet		200		102	70-130	8	25
trans-1,4-Dichloro-2-butene	**16.4**		µg/kg wet		20.0		82	70-130	11	25
Ethanol	**490**		µg/kg wet		400		123	70-130	6	30
Surrogate: 4-Bromofluorobenzene	*51.6*		µg/kg wet		*50.0*		*103*	*70-130*		
Surrogate: Toluene-d8	*50.5*		µg/kg wet		*50.0*		*101*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*51.4*		µg/kg wet		*50.0*		*103*	*70-130*		
Surrogate: Dibromofluoromethane	*51.2*		µg/kg wet		*50.0*		*102*	*70-130*		
Batch 1201627 - SW846 5030 Soil (high level)										
Blank (1201627-BLK1)					Prepared & Analyzed: 20-Jan-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 50.0		µg/kg wet	50.0						
Acetone	< 500		µg/kg wet	500						
Acrylonitrile	< 50.0		µg/kg wet	50.0						
Benzene	< 50.0		µg/kg wet	50.0						
Bromobenzene	< 50.0		µg/kg wet	50.0						
Bromochloromethane	< 50.0		µg/kg wet	50.0						
Bromodichloromethane	< 50.0		µg/kg wet	50.0						
Bromoform	< 50.0		µg/kg wet	50.0						
Bromomethane	< 100		µg/kg wet	100						
2-Butanone (MEK)	< 500		µg/kg wet	500						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201627 - SW846 5030 Soil (high level)										
Blank (1201627-BLK1)					Prepared & Analyzed: 20-Jan-12					
n-Butylbenzene	< 50.0		µg/kg wet	50.0						
sec-Butylbenzene	< 50.0		µg/kg wet	50.0						
tert-Butylbenzene	< 50.0		µg/kg wet	50.0						
Carbon disulfide	< 100		µg/kg wet	100						
Carbon tetrachloride	< 50.0		µg/kg wet	50.0						
Chlorobenzene	< 50.0		µg/kg wet	50.0						
Chloroethane	< 100		µg/kg wet	100						
Chloroform	< 50.0		µg/kg wet	50.0						
Chloromethane	< 100		µg/kg wet	100						
2-Chlorotoluene	< 50.0		µg/kg wet	50.0						
4-Chlorotoluene	< 50.0		µg/kg wet	50.0						
1,2-Dibromo-3-chloropropane	< 100		µg/kg wet	100						
Dibromochloromethane	< 50.0		µg/kg wet	50.0						
1,2-Dibromoethane (EDB)	< 50.0		µg/kg wet	50.0						
Dibromomethane	< 50.0		µg/kg wet	50.0						
1,2-Dichlorobenzene	< 50.0		µg/kg wet	50.0						
1,3-Dichlorobenzene	< 50.0		µg/kg wet	50.0						
1,4-Dichlorobenzene	< 50.0		µg/kg wet	50.0						
Dichlorodifluoromethane (Freon12)	< 100		µg/kg wet	100						
1,1-Dichloroethane	< 50.0		µg/kg wet	50.0						
1,2-Dichloroethane	< 50.0		µg/kg wet	50.0						
1,1-Dichloroethene	< 50.0		µg/kg wet	50.0						
cis-1,2-Dichloroethene	< 50.0		µg/kg wet	50.0						
trans-1,2-Dichloroethene	< 50.0		µg/kg wet	50.0						
1,2-Dichloropropane	< 50.0		µg/kg wet	50.0						
1,3-Dichloropropane	< 50.0		µg/kg wet	50.0						
2,2-Dichloropropane	< 50.0		µg/kg wet	50.0						
1,1-Dichloropropene	< 50.0		µg/kg wet	50.0						
cis-1,3-Dichloropropene	< 50.0		µg/kg wet	50.0						
trans-1,3-Dichloropropene	< 50.0		µg/kg wet	50.0						
Ethylbenzene	< 50.0		µg/kg wet	50.0						
Hexachlorobutadiene	< 50.0		µg/kg wet	50.0						
2-Hexanone (MBK)	< 500		µg/kg wet	500						
Isopropylbenzene	< 50.0		µg/kg wet	50.0						
4-Isopropyltoluene	< 50.0		µg/kg wet	50.0						
Methyl tert-butyl ether	< 50.0		µg/kg wet	50.0						
4-Methyl-2-pentanone (MIBK)	< 500		µg/kg wet	500						
Methylene chloride	< 100		µg/kg wet	100						
Naphthalene	< 50.0		µg/kg wet	50.0						
n-Propylbenzene	< 50.0		µg/kg wet	50.0						
Styrene	< 50.0		µg/kg wet	50.0						
1,1,1,2-Tetrachloroethane	< 50.0		µg/kg wet	50.0						
1,1,2,2-Tetrachloroethane	< 50.0		µg/kg wet	50.0						
Tetrachloroethene	< 50.0		µg/kg wet	50.0						
Toluene	< 50.0		µg/kg wet	50.0						
1,2,3-Trichlorobenzene	< 50.0		µg/kg wet	50.0						
1,2,4-Trichlorobenzene	< 50.0		µg/kg wet	50.0						
1,3,5-Trichlorobenzene	< 50.0		µg/kg wet	50.0						
1,1,1-Trichloroethane	< 50.0		µg/kg wet	50.0						
1,1,2-Trichloroethane	< 50.0		µg/kg wet	50.0						
Trichloroethene	< 50.0		µg/kg wet	50.0						
Trichlorofluoromethane (Freon 11)	< 50.0		µg/kg wet	50.0						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201627 - SW846 5030 Soil (high level)										
Blank (1201627-BLK1)					Prepared & Analyzed: 20-Jan-12					
1,2,3-Trichloropropane	< 50.0		µg/kg wet	50.0						
1,2,4-Trimethylbenzene	< 50.0		µg/kg wet	50.0						
1,3,5-Trimethylbenzene	< 50.0		µg/kg wet	50.0						
Vinyl chloride	< 50.0		µg/kg wet	50.0						
m,p-Xylene	< 100		µg/kg wet	100						
o-Xylene	< 50.0		µg/kg wet	50.0						
Tetrahydrofuran	< 100		µg/kg wet	100						
Ethyl ether	< 50.0		µg/kg wet	50.0						
Tert-amyl methyl ether	< 50.0		µg/kg wet	50.0						
Ethyl tert-butyl ether	< 50.0		µg/kg wet	50.0						
Di-isopropyl ether	< 50.0		µg/kg wet	50.0						
Tert-Butanol / butyl alcohol	< 500		µg/kg wet	500						
1,4-Dioxane	< 1000		µg/kg wet	1000						
trans-1,4-Dichloro-2-butene	< 250		µg/kg wet	250						
Ethanol	< 20000		µg/kg wet	20000						
Surrogate: 4-Bromofluorobenzene	*29.4*		µg/kg wet		*30.0*		*98*	*70-130*		
Surrogate: Toluene-d8	*29.4*		µg/kg wet		*30.0*		*98*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*32.6*		µg/kg wet		*30.0*		*109*	*70-130*		
Surrogate: Dibromofluoromethane	*28.5*		µg/kg wet		*30.0*		*95*	*70-130*		
LCS (1201627-BS1)					Prepared & Analyzed: 20-Jan-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**21.4**		µg/kg wet		20.0		107	70-130		
Acetone	**19.0**		µg/kg wet		20.0		95	70-130		
Acrylonitrile	**17.9**		µg/kg wet		20.0		89	70-130		
Benzene	**20.7**		µg/kg wet		20.0		103	70-130		
Bromobenzene	**20.9**		µg/kg wet		20.0		104	70-130		
Bromochloromethane	**20.6**		µg/kg wet		20.0		103	70-130		
Bromodichloromethane	**20.5**		µg/kg wet		20.0		102	70-130		
Bromoform	**19.0**		µg/kg wet		20.0		95	70-130		
Bromomethane	**21.5**		µg/kg wet		20.0		108	70-130		
2-Butanone (MEK)	**18.4**		µg/kg wet		20.0		92	70-130		
n-Butylbenzene	**21.9**		µg/kg wet		20.0		109	70-130		
sec-Butylbenzene	**22.1**		µg/kg wet		20.0		111	70-130		
tert-Butylbenzene	**21.8**		µg/kg wet		20.0		109	70-130		
Carbon disulfide	**19.8**		µg/kg wet		20.0		99	70-130		
Carbon tetrachloride	**20.3**		µg/kg wet		20.0		102	70-130		
Chlorobenzene	**21.0**		µg/kg wet		20.0		105	70-130		
Chloroethane	**20.8**		µg/kg wet		20.0		104	70-130		
Chloroform	**19.8**		µg/kg wet		20.0		99	70-130		
Chloromethane	**21.0**		µg/kg wet		20.0		105	70-130		
2-Chlorotoluene	**21.5**		µg/kg wet		20.0		107	70-130		
4-Chlorotoluene	**21.2**		µg/kg wet		20.0		106	70-130		
1,2-Dibromo-3-chloropropane	**19.6**		µg/kg wet		20.0		98	70-130		
Dibromochloromethane	**20.3**		µg/kg wet		20.0		101	70-130		
1,2-Dibromoethane (EDB)	**21.5**		µg/kg wet		20.0		107	70-130		
Dibromomethane	**20.6**		µg/kg wet		20.0		103	70-130		
1,2-Dichlorobenzene	**21.9**		µg/kg wet		20.0		110	70-130		
1,3-Dichlorobenzene	**21.0**		µg/kg wet		20.0		105	70-130		
1,4-Dichlorobenzene	**21.4**		µg/kg wet		20.0		107	70-130		
Dichlorodifluoromethane (Freon12)	**19.4**		µg/kg wet		20.0		97	70-130		
1,1-Dichloroethane	**20.2**		µg/kg wet		20.0		101	70-130		
1,2-Dichloroethane	**22.1**		µg/kg wet		20.0		111	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201627 - SW846 5030 Soil (high level)										
LCS (1201627-BS1)					Prepared & Analyzed: 20-Jan-12					
1,1-Dichloroethene	**20.4**		µg/kg wet		20.0		102	70-130		
cis-1,2-Dichloroethene	**20.2**		µg/kg wet		20.0		101	70-130		
trans-1,2-Dichloroethene	**20.9**		µg/kg wet		20.0		104	70-130		
1,2-Dichloropropane	**19.8**		µg/kg wet		20.0		99	70-130		
1,3-Dichloropropane	**20.2**		µg/kg wet		20.0		101	70-130		
2,2-Dichloropropane	**18.2**		µg/kg wet		20.0		91	70-130		
1,1-Dichloropropene	**21.0**		µg/kg wet		20.0		105	70-130		
cis-1,3-Dichloropropene	**19.1**		µg/kg wet		20.0		96	70-130		
trans-1,3-Dichloropropene	**18.8**		µg/kg wet		20.0		94	70-130		
Ethylbenzene	**21.7**		µg/kg wet		20.0		108	70-130		
Hexachlorobutadiene	**21.5**		µg/kg wet		20.0		108	70-130		
2-Hexanone (MBK)	**18.0**		µg/kg wet		20.0		90	70-130		
Isopropylbenzene	**21.2**		µg/kg wet		20.0		106	70-130		
4-Isopropyltoluene	**22.5**		µg/kg wet		20.0		112	70-130		
Methyl tert-butyl ether	**19.2**		µg/kg wet		20.0		96	70-130		
4-Methyl-2-pentanone (MIBK)	**16.4**		µg/kg wet		20.0		82	70-130		
Methylene chloride	**19.6**		µg/kg wet		20.0		98	70-130		
Naphthalene	**22.7**		µg/kg wet		20.0		114	70-130		
n-Propylbenzene	**21.9**		µg/kg wet		20.0		109	70-130		
Styrene	**22.0**		µg/kg wet		20.0		110	70-130		
1,1,1,2-Tetrachloroethane	**22.1**		µg/kg wet		20.0		111	70-130		
1,1,2,2-Tetrachloroethane	**21.0**		µg/kg wet		20.0		105	70-130		
Tetrachloroethene	**20.4**		µg/kg wet		20.0		102	70-130		
Toluene	**20.8**		µg/kg wet		20.0		104	70-130		
1,2,3-Trichlorobenzene	**22.7**		µg/kg wet		20.0		114	70-130		
1,2,4-Trichlorobenzene	**21.8**		µg/kg wet		20.0		109	70-130		
1,3,5-Trichlorobenzene	**21.9**		µg/kg wet		20.0		110	70-130		
1,1,1-Trichloroethane	**21.6**		µg/kg wet		20.0		108	70-130		
1,1,2-Trichloroethane	**20.0**		µg/kg wet		20.0		100	70-130		
Trichloroethene	**20.5**		µg/kg wet		20.0		103	70-130		
Trichlorofluoromethane (Freon 11)	**20.9**		µg/kg wet		20.0		104	70-130		
1,2,3-Trichloropropane	**20.4**		µg/kg wet		20.0		102	70-130		
1,2,4-Trimethylbenzene	**22.0**		µg/kg wet		20.0		110	70-130		
1,3,5-Trimethylbenzene	**21.8**		µg/kg wet		20.0		109	70-130		
Vinyl chloride	**21.0**		µg/kg wet		20.0		105	70-130		
m,p-Xylene	**43.8**		µg/kg wet		40.0		109	70-130		
o-Xylene	**21.7**		µg/kg wet		20.0		109	70-130		
Tetrahydrofuran	**18.1**		µg/kg wet		20.0		91	70-130		
Ethyl ether	**19.6**		µg/kg wet		20.0		98	70-130		
Tert-amyl methyl ether	**17.8**		µg/kg wet		20.0		89	70-130		
Ethyl tert-butyl ether	**19.1**		µg/kg wet		20.0		96	70-130		
Di-isopropyl ether	**19.4**		µg/kg wet		20.0		97	70-130		
Tert-Butanol / butyl alcohol	**169**		µg/kg wet		200		85	70-130		
1,4-Dioxane	**191**		µg/kg wet		200		95	70-130		
trans-1,4-Dichloro-2-butene	**18.4**		µg/kg wet		20.0		92	70-130		
Ethanol	**374**		µg/kg wet		400		93	70-130		
Surrogate: 4-Bromofluorobenzene	*28.5*		µg/kg wet		*30.0*		*95*	*70-130*		
Surrogate: Toluene-d8	*29.5*		µg/kg wet		*30.0*		*98*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*34.2*		µg/kg wet		*30.0*		*114*	*70-130*		
Surrogate: Dibromofluoromethane	*29.6*		µg/kg wet		*30.0*		*99*	*70-130*		
LCS Dup (1201627-BSD1)					Prepared & Analyzed: 20-Jan-12					

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201627 - SW846 5030 Soil (high level)										
LCS Dup (1201627-BSD1)					Prepared & Analyzed: 20-Jan-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**23.1**		µg/kg wet		20.0		115	70-130	7	25
Acetone	**21.0**		µg/kg wet		20.0		105	70-130	10	50
Acrylonitrile	**19.2**		µg/kg wet		20.0		96	70-130	7	25
Benzene	**21.8**		µg/kg wet		20.0		109	70-130	6	25
Bromobenzene	**22.6**		µg/kg wet		20.0		113	70-130	8	25
Bromochloromethane	**21.5**		µg/kg wet		20.0		107	70-130	4	25
Bromodichloromethane	**21.5**		µg/kg wet		20.0		107	70-130	5	25
Bromoform	**20.2**		µg/kg wet		20.0		101	70-130	6	25
Bromomethane	**23.6**		µg/kg wet		20.0		118	70-130	9	50
2-Butanone (MEK)	**20.4**		µg/kg wet		20.0		102	70-130	10	50
n-Butylbenzene	**23.9**		µg/kg wet		20.0		120	70-130	9	25
sec-Butylbenzene	**23.8**		µg/kg wet		20.0		119	70-130	7	25
tert-Butylbenzene	**23.7**		µg/kg wet		20.0		119	70-130	8	25
Carbon disulfide	**21.4**		µg/kg wet		20.0		107	70-130	7	25
Carbon tetrachloride	**21.6**		µg/kg wet		20.0		108	70-130	6	25
Chlorobenzene	**23.0**		µg/kg wet		20.0		115	70-130	9	25
Chloroethane	**21.8**		µg/kg wet		20.0		109	70-130	5	50
Chloroform	**21.2**		µg/kg wet		20.0		106	70-130	7	25
Chloromethane	**26.6**	QM9	µg/kg wet		20.0		133	70-130	23	25
2-Chlorotoluene	**23.2**		µg/kg wet		20.0		116	70-130	8	25
4-Chlorotoluene	**22.9**		µg/kg wet		20.0		114	70-130	7	25
1,2-Dibromo-3-chloropropane	**20.8**		µg/kg wet		20.0		104	70-130	6	25
Dibromochloromethane	**20.8**		µg/kg wet		20.0		104	70-130	2	50
1,2-Dibromoethane (EDB)	**22.8**		µg/kg wet		20.0		114	70-130	6	25
Dibromomethane	**22.1**		µg/kg wet		20.0		110	70-130	7	25
1,2-Dichlorobenzene	**23.6**		µg/kg wet		20.0		118	70-130	8	25
1,3-Dichlorobenzene	**22.6**		µg/kg wet		20.0		113	70-130	7	25
1,4-Dichlorobenzene	**23.2**		µg/kg wet		20.0		116	70-130	8	25
Dichlorodifluoromethane (Freon12)	**21.2**		µg/kg wet		20.0		106	70-130	8	50
1,1-Dichloroethane	**21.5**		µg/kg wet		20.0		108	70-130	6	25
1,2-Dichloroethane	**23.4**		µg/kg wet		20.0		117	70-130	6	25
1,1-Dichloroethene	**21.7**		µg/kg wet		20.0		109	70-130	6	25
cis-1,2-Dichloroethene	**22.0**		µg/kg wet		20.0		110	70-130	8	25
trans-1,2-Dichloroethene	**22.5**		µg/kg wet		20.0		112	70-130	7	25
1,2-Dichloropropane	**21.4**		µg/kg wet		20.0		107	70-130	8	25
1,3-Dichloropropane	**21.1**		µg/kg wet		20.0		106	70-130	4	25
2,2-Dichloropropane	**19.0**		µg/kg wet		20.0		95	70-130	4	25
1,1-Dichloropropene	**22.3**		µg/kg wet		20.0		112	70-130	6	25
cis-1,3-Dichloropropene	**20.4**		µg/kg wet		20.0		102	70-130	6	25
trans-1,3-Dichloropropene	**19.6**		µg/kg wet		20.0		98	70-130	5	25
Ethylbenzene	**23.6**		µg/kg wet		20.0		118	70-130	9	25
Hexachlorobutadiene	**23.2**		µg/kg wet		20.0		116	70-130	8	50
2-Hexanone (MBK)	**19.9**		µg/kg wet		20.0		100	70-130	10	25
Isopropylbenzene	**23.1**		µg/kg wet		20.0		115	70-130	9	25
4-Isopropyltoluene	**24.7**		µg/kg wet		20.0		124	70-130	9	25
Methyl tert-butyl ether	**20.3**		µg/kg wet		20.0		101	70-130	5	25
4-Methyl-2-pentanone (MIBK)	**18.9**		µg/kg wet		20.0		95	70-130	14	50
Methylene chloride	**21.1**		µg/kg wet		20.0		105	70-130	7	25
Naphthalene	**24.2**		µg/kg wet		20.0		121	70-130	6	25
n-Propylbenzene	**23.8**		µg/kg wet		20.0		119	70-130	9	25
Styrene	**23.4**		µg/kg wet		20.0		117	70-130	6	25
1,1,1,2-Tetrachloroethane	**23.5**		µg/kg wet		20.0		117	70-130	6	25

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201627 - SW846 5030 Soil (high level)										
LCS Dup (1201627-BSD1)					Prepared & Analyzed: 20-Jan-12					
1,1,2,2-Tetrachloroethane	**22.7**		µg/kg wet		20.0		113	70-130	7	25
Tetrachloroethene	**21.4**		µg/kg wet		20.0		107	70-130	5	25
Toluene	**22.2**		µg/kg wet		20.0		111	70-130	6	25
1,2,3-Trichlorobenzene	**23.9**		µg/kg wet		20.0		120	70-130	5	25
1,2,4-Trichlorobenzene	**23.4**		µg/kg wet		20.0		117	70-130	7	25
1,3,5-Trichlorobenzene	**23.3**		µg/kg wet		20.0		117	70-130	6	25
1,1,1-Trichloroethane	**23.2**		µg/kg wet		20.0		116	70-130	7	25
1,1,2-Trichloroethane	**21.5**		µg/kg wet		20.0		107	70-130	7	25
Trichloroethene	**22.4**		µg/kg wet		20.0		112	70-130	9	25
Trichlorofluoromethane (Freon 11)	**22.4**		µg/kg wet		20.0		112	70-130	7	50
1,2,3-Trichloropropane	**22.6**		µg/kg wet		20.0		113	70-130	10	25
1,2,4-Trimethylbenzene	**23.4**		µg/kg wet		20.0		117	70-130	6	25
1,3,5-Trimethylbenzene	**23.2**		µg/kg wet		20.0		116	70-130	6	25
Vinyl chloride	**22.9**		µg/kg wet		20.0		114	70-130	9	25
m,p-Xylene	**47.3**		µg/kg wet		40.0		118	70-130	8	25
o-Xylene	**23.3**		µg/kg wet		20.0		117	70-130	7	25
Tetrahydrofuran	**18.6**		µg/kg wet		20.0		93	70-130	3	25
Ethyl ether	**20.2**		µg/kg wet		20.0		101	70-130	3	50
Tert-amyl methyl ether	**18.8**		µg/kg wet		20.0		94	70-130	6	25
Ethyl tert-butyl ether	**20.2**		µg/kg wet		20.0		101	70-130	5	25
Di-isopropyl ether	**20.7**		µg/kg wet		20.0		104	70-130	6	25
Tert-Butanol / butyl alcohol	**188**		µg/kg wet		200		94	70-130	11	25
1,4-Dioxane	**201**		µg/kg wet		200		101	70-130	6	25
trans-1,4-Dichloro-2-butene	**19.6**		µg/kg wet		20.0		98	70-130	6	25
Ethanol	**402**		µg/kg wet		400		100	70-130	7	30
Surrogate: 4-Bromofluorobenzene	*29.1*		µg/kg wet		*30.0*		*97*	*70-130*		
Surrogate: Toluene-d8	*29.6*		µg/kg wet		*30.0*		*99*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*34.1*		µg/kg wet		*30.0*		*114*	*70-130*		
Surrogate: Dibromofluoromethane	*29.8*		µg/kg wet		*30.0*		*99*	*70-130*		
Matrix Spike (1201627-MS1)			**Source: SB42546-12**		Prepared & Analyzed: 20-Jan-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**21.3**		µg/kg dry		20.0	BRL	107	70-130		
Acetone	**19.5**		µg/kg dry		20.0	BRL	98	70-130		
Acrylonitrile	**17.9**		µg/kg dry		20.0	BRL	90	70-130		
Benzene	**22.4**		µg/kg dry		20.0	BRL	112	70-130		
Bromobenzene	**23.4**		µg/kg dry		20.0	BRL	117	70-130		
Bromochloromethane	**21.3**		µg/kg dry		20.0	BRL	106	70-130		
Bromodichloromethane	**20.1**		µg/kg dry		20.0	BRL	100	70-130		
Bromoform	**18.1**		µg/kg dry		20.0	BRL	91	70-130		
Bromomethane	**20.3**		µg/kg dry		20.0	BRL	101	70-130		
2-Butanone (MEK)	**9.7**	QM7	µg/kg dry		20.0	BRL	48	70-130		
n-Butylbenzene	**24.9**		µg/kg dry		20.0	BRL	125	70-130		
sec-Butylbenzene	**24.2**		µg/kg dry		20.0	BRL	121	70-130		
tert-Butylbenzene	**23.9**		µg/kg dry		20.0	BRL	119	70-130		
Carbon disulfide	**15.0**		µg/kg dry		20.0	BRL	75	70-130		
Carbon tetrachloride	**19.1**		µg/kg dry		20.0	BRL	96	70-130		
Chlorobenzene	**23.1**		µg/kg dry		20.0	BRL	116	70-130		
Chloroethane	**21.6**		µg/kg dry		20.0	BRL	108	70-130		
Chloroform	**21.0**		µg/kg dry		20.0	BRL	105	70-130		
Chloromethane	**25.1**		µg/kg dry		20.0	BRL	125	70-130		
2-Chlorotoluene	**24.1**		µg/kg dry		20.0	BRL	120	70-130		
4-Chlorotoluene	**23.2**		µg/kg dry		20.0	BRL	116	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201627 - SW846 5030 Soil (high level)										
Matrix Spike (1201627-MS1)			**Source: SB42546-12**		Prepared & Analyzed: 20-Jan-12					
1,2-Dibromo-3-chloropropane	**17.1**		µg/kg dry		20.0	BRL	85	70-130		
Dibromochloromethane	**19.7**		µg/kg dry		20.0	BRL	99	70-130		
1,2-Dibromoethane (EDB)	**22.9**		µg/kg dry		20.0	BRL	115	70-130		
Dibromomethane	**21.6**		µg/kg dry		20.0	BRL	108	70-130		
1,2-Dichlorobenzene	**23.2**		µg/kg dry		20.0	BRL	116	70-130		
1,3-Dichlorobenzene	**23.1**		µg/kg dry		20.0	BRL	115	70-130		
1,4-Dichlorobenzene	**23.5**		µg/kg dry		20.0	BRL	117	70-130		
Dichlorodifluoromethane (Freon12)	**21.3**		µg/kg dry		20.0	BRL	106	70-130		
1,1-Dichloroethane	**21.5**		µg/kg dry		20.0	BRL	108	70-130		
1,2-Dichloroethane	**23.4**		µg/kg dry		20.0	BRL	117	70-130		
1,1-Dichloroethene	**20.8**		µg/kg dry		20.0	BRL	104	70-130		
cis-1,2-Dichloroethene	**85.8**		µg/kg dry		20.0	70.6	76	70-130		
trans-1,2-Dichloroethene	**25.8**		µg/kg dry		20.0	4.3	107	70-130		
1,2-Dichloropropane	**21.4**		µg/kg dry		20.0	BRL	107	70-130		
1,3-Dichloropropane	**22.1**		µg/kg dry		20.0	BRL	111	70-130		
2,2-Dichloropropane	**17.9**		µg/kg dry		20.0	BRL	90	70-130		
1,1-Dichloropropene	**21.8**		µg/kg dry		20.0	BRL	109	70-130		
cis-1,3-Dichloropropene	**18.6**		µg/kg dry		20.0	BRL	93	70-130		
trans-1,3-Dichloropropene	**18.7**		µg/kg dry		20.0	BRL	94	70-130		
Ethylbenzene	**23.2**		µg/kg dry		20.0	BRL	116	70-130		
Hexachlorobutadiene	**22.7**		µg/kg dry		20.0	BRL	114	70-130		
2-Hexanone (MBK)	**17.6**		µg/kg dry		20.0	BRL	88	70-130		
Isopropylbenzene	**23.5**		µg/kg dry		20.0	BRL	117	70-130		
4-Isopropyltoluene	**24.8**		µg/kg dry		20.0	BRL	124	70-130		
Methyl tert-butyl ether	**19.8**		µg/kg dry		20.0	BRL	99	70-130		
4-Methyl-2-pentanone (MIBK)	**19.2**		µg/kg dry		20.0	BRL	96	70-130		
Methylene chloride	**21.5**		µg/kg dry		20.0	BRL	107	70-130		
Naphthalene	**21.9**		µg/kg dry		20.0	BRL	109	70-130		
n-Propylbenzene	**23.8**		µg/kg dry		20.0	BRL	119	70-130		
Styrene	**23.5**		µg/kg dry		20.0	BRL	117	70-130		
1,1,1,2-Tetrachloroethane	**22.6**		µg/kg dry		20.0	BRL	113	70-130		
1,1,2,2-Tetrachloroethane	**22.1**		µg/kg dry		20.0	BRL	111	70-130		
Tetrachloroethene	**23.8**		µg/kg dry		20.0	1.6	111	70-130		
Toluene	**22.4**		µg/kg dry		20.0	BRL	112	70-130		
1,2,3-Trichlorobenzene	**22.0**		µg/kg dry		20.0	BRL	110	70-130		
1,2,4-Trichlorobenzene	**22.1**		µg/kg dry		20.0	BRL	111	70-130		
1,3,5-Trichlorobenzene	**23.3**		µg/kg dry		20.0	BRL	116	70-130		
1,1,1-Trichloroethane	**21.1**		µg/kg dry		20.0	BRL	105	70-130		
1,1,2-Trichloroethane	**22.7**		µg/kg dry		20.0	BRL	114	70-130		
Trichloroethene	**480**	QM4X	µg/kg dry		20.0	517	-182	70-130		
Trichlorofluoromethane (Freon 11)	**20.2**		µg/kg dry		20.0	BRL	101	70-130		
1,2,3-Trichloropropane	**22.6**		µg/kg dry		20.0	BRL	113	70-130		
1,2,4-Trimethylbenzene	**23.8**		µg/kg dry		20.0	BRL	119	70-130		
1,3,5-Trimethylbenzene	**24.0**		µg/kg dry		20.0	BRL	120	70-130		
Vinyl chloride	**19.3**		µg/kg dry		20.0	BRL	96	70-130		
m,p-Xylene	**47.6**		µg/kg dry		40.0	BRL	119	70-130		
o-Xylene	**23.6**		µg/kg dry		20.0	BRL	118	70-130		
Tetrahydrofuran	**17.6**		µg/kg dry		20.0	BRL	88	70-130		
Ethyl ether	**20.9**		µg/kg dry		20.0	BRL	104	70-130		
Tert-amyl methyl ether	**17.9**		µg/kg dry		20.0	BRL	89	70-130		
Ethyl tert-butyl ether	**20.2**		µg/kg dry		20.0	BRL	101	70-130		
Di-isopropyl ether	**20.4**		µg/kg dry		20.0	BRL	102	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201627 - SW846 5030 Soil (high level)										
Matrix Spike (1201627-MS1)			**Source: SB42546-12**		Prepared & Analyzed: 20-Jan-12					
Tert-Butanol / butyl alcohol	**193**		µg/kg dry		200	BRL	97	70-130		
1,4-Dioxane	**212**		µg/kg dry		200	BRL	106	70-130		
trans-1,4-Dichloro-2-butene	**19.4**		µg/kg dry		20.0	BRL	97	70-130		
Ethanol	**423**		µg/kg dry		400	BRL	106	70-130		
Surrogate: 4-Bromofluorobenzene	*29.7*		µg/kg dry		*30.0*		*99*	*70-130*		
Surrogate: Toluene-d8	*29.6*		µg/kg dry		*30.0*		*99*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*29.7*		µg/kg dry		*30.0*		*99*	*70-130*		
Surrogate: Dibromofluoromethane	*28.8*		µg/kg dry		*30.0*		*96*	*70-130*		
Matrix Spike Dup (1201627-MSD1)			**Source: SB42546-12**		Prepared & Analyzed: 20-Jan-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**21.0**		µg/kg dry		20.0	BRL	105	70-130	1	30
Acetone	**19.3**		µg/kg dry		20.0	BRL	96	70-130	1	30
Acrylonitrile	**18.9**		µg/kg dry		20.0	BRL	95	70-130	5	30
Benzene	**21.4**		µg/kg dry		20.0	BRL	107	70-130	5	30
Bromobenzene	**22.2**		µg/kg dry		20.0	BRL	111	70-130	5	30
Bromochloromethane	**20.1**		µg/kg dry		20.0	BRL	101	70-130	6	30
Bromodichloromethane	**20.0**		µg/kg dry		20.0	BRL	100	70-130	0.05	30
Bromoform	**17.5**		µg/kg dry		20.0	BRL	87	70-130	4	30
Bromomethane	**21.5**		µg/kg dry		20.0	BRL	107	70-130	6	30
2-Butanone (MEK)	**17.1**	QR5	µg/kg dry		20.0	BRL	85	70-130	55	30
n-Butylbenzene	**23.5**		µg/kg dry		20.0	BRL	117	70-130	6	30
sec-Butylbenzene	**23.6**		µg/kg dry		20.0	BRL	118	70-130	3	30
tert-Butylbenzene	**23.0**		µg/kg dry		20.0	BRL	115	70-130	4	30
Carbon disulfide	**15.1**		µg/kg dry		20.0	BRL	76	70-130	0.5	30
Carbon tetrachloride	**19.3**		µg/kg dry		20.0	BRL	96	70-130	1	30
Chlorobenzene	**22.3**		µg/kg dry		20.0	BRL	111	70-130	4	30
Chloroethane	**20.8**		µg/kg dry		20.0	BRL	104	70-130	4	30
Chloroform	**20.1**		µg/kg dry		20.0	BRL	101	70-130	4	30
Chloromethane	**20.8**		µg/kg dry		20.0	BRL	104	70-130	19	30
2-Chlorotoluene	**21.9**		µg/kg dry		20.0	BRL	110	70-130	9	30
4-Chlorotoluene	**22.6**		µg/kg dry		20.0	BRL	113	70-130	3	30
1,2-Dibromo-3-chloropropane	**16.6**		µg/kg dry		20.0	BRL	83	70-130	3	30
Dibromochloromethane	**19.7**		µg/kg dry		20.0	BRL	98	70-130	0.1	30
1,2-Dibromoethane (EDB)	**22.5**		µg/kg dry		20.0	BRL	113	70-130	2	30
Dibromomethane	**21.6**		µg/kg dry		20.0	BRL	108	70-130	0.2	30
1,2-Dichlorobenzene	**22.0**		µg/kg dry		20.0	BRL	110	70-130	5	30
1,3-Dichlorobenzene	**22.1**		µg/kg dry		20.0	BRL	110	70-130	4	30
1,4-Dichlorobenzene	**22.2**		µg/kg dry		20.0	BRL	111	70-130	5	30
Dichlorodifluoromethane (Freon12)	**20.0**		µg/kg dry		20.0	BRL	100	70-130	6	30
1,1-Dichloroethane	**20.6**		µg/kg dry		20.0	BRL	103	70-130	4	30
1,2-Dichloroethane	**23.0**		µg/kg dry		20.0	BRL	115	70-130	1	30
1,1-Dichloroethene	**20.5**		µg/kg dry		20.0	BRL	102	70-130	2	30
cis-1,2-Dichloroethene	**84.1**	QM7	µg/kg dry		20.0	70.6	67	70-130	12	30
trans-1,2-Dichloroethene	**24.9**		µg/kg dry		20.0	4.3	103	70-130	4	30
1,2-Dichloropropane	**21.4**		µg/kg dry		20.0	BRL	107	70-130	0.3	30
1,3-Dichloropropane	**21.7**		µg/kg dry		20.0	BRL	109	70-130	2	30
2,2-Dichloropropane	**17.1**		µg/kg dry		20.0	BRL	85	70-130	5	30
1,1-Dichloropropene	**21.4**		µg/kg dry		20.0	BRL	107	70-130	2	30
cis-1,3-Dichloropropene	**18.6**		µg/kg dry		20.0	BRL	93	70-130	0.3	30
trans-1,3-Dichloropropene	**18.4**		µg/kg dry		20.0	BRL	92	70-130	2	30
Ethylbenzene	**22.6**		µg/kg dry		20.0	BRL	113	70-130	3	30
Hexachlorobutadiene	**23.2**		µg/kg dry		20.0	BRL	116	70-130	2	30

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201627 - SW846 5030 Soil (high level)										
Matrix Spike Dup (1201627-MSD1)			**Source: SB42546-12**		Prepared & Analyzed: 20-Jan-12					
2-Hexanone (MBK)	**18.7**		µg/kg dry		20.0	BRL	93	70-130	6	30
Isopropylbenzene	**22.7**		µg/kg dry		20.0	BRL	113	70-130	3	30
4-Isopropyltoluene	**23.6**		µg/kg dry		20.0	BRL	118	70-130	5	30
Methyl tert-butyl ether	**19.1**		µg/kg dry		20.0	BRL	96	70-130	4	30
4-Methyl-2-pentanone (MIBK)	**18.4**		µg/kg dry		20.0	BRL	92	70-130	5	30
Methylene chloride	**20.4**		µg/kg dry		20.0	BRL	102	70-130	5	30
Naphthalene	**21.7**		µg/kg dry		20.0	BRL	109	70-130	0.6	30
n-Propylbenzene	**23.1**		µg/kg dry		20.0	BRL	116	70-130	3	30
Styrene	**22.9**		µg/kg dry		20.0	BRL	115	70-130	2	30
1,1,1,2-Tetrachloroethane	**22.0**		µg/kg dry		20.0	BRL	110	70-130	3	30
1,1,2,2-Tetrachloroethane	**21.9**		µg/kg dry		20.0	BRL	109	70-130	1	30
Tetrachloroethene	**22.9**		µg/kg dry		20.0	1.6	107	70-130	4	30
Toluene	**21.7**		µg/kg dry		20.0	BRL	109	70-130	3	30
1,2,3-Trichlorobenzene	**21.7**		µg/kg dry		20.0	BRL	108	70-130	1	30
1,2,4-Trichlorobenzene	**21.7**		µg/kg dry		20.0	BRL	108	70-130	2	30
1,3,5-Trichlorobenzene	**22.1**		µg/kg dry		20.0	BRL	111	70-130	5	30
1,1,1-Trichloroethane	**20.9**		µg/kg dry		20.0	BRL	105	70-130	0.9	30
1,1,2-Trichloroethane	**22.4**		µg/kg dry		20.0	BRL	112	70-130	1	30
Trichloroethene	**484**	QM4X	µg/kg dry		20.0	517	-165	70-130	NR	30
Trichlorofluoromethane (Freon 11)	**19.8**		µg/kg dry		20.0	BRL	99	70-130	2	30
1,2,3-Trichloropropane	**22.3**		µg/kg dry		20.0	BRL	111	70-130	1	30
1,2,4-Trimethylbenzene	**22.8**		µg/kg dry		20.0	BRL	114	70-130	4	30
1,3,5-Trimethylbenzene	**23.2**		µg/kg dry		20.0	BRL	116	70-130	3	30
Vinyl chloride	**18.8**		µg/kg dry		20.0	BRL	94	70-130	3	30
m,p-Xylene	**46.0**		µg/kg dry		40.0	BRL	115	70-130	3	30
o-Xylene	**22.3**		µg/kg dry		20.0	BRL	112	70-130	6	30
Tetrahydrofuran	**18.4**		µg/kg dry		20.0	BRL	92	70-130	4	30
Ethyl ether	**19.9**		µg/kg dry		20.0	BRL	99	70-130	5	30
Tert-amyl methyl ether	**17.3**		µg/kg dry		20.0	BRL	86	70-130	3	30
Ethyl tert-butyl ether	**19.2**		µg/kg dry		20.0	BRL	96	70-130	5	30
Di-isopropyl ether	**19.5**		µg/kg dry		20.0	BRL	98	70-130	5	30
Tert-Butanol / butyl alcohol	**190**		µg/kg dry		200	BRL	95	70-130	2	30
1,4-Dioxane	**189**		µg/kg dry		200	BRL	94	70-130	11	30
trans-1,4-Dichloro-2-butene	**19.5**		µg/kg dry		20.0	BRL	97	70-130	0.4	30
Ethanol	**407**		µg/kg dry		400	BRL	102	70-130	4	30
Surrogate: 4-Bromofluorobenzene	*29.8*		µg/kg dry		*30.0*		*99*	*70-130*		
Surrogate: Toluene-d8	*29.5*		µg/kg dry		*30.0*		*98*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*34.3*		µg/kg dry		*30.0*		*114*	*70-130*		
Surrogate: Dibromofluoromethane	*28.8*		µg/kg dry		*30.0*		*96*	*70-130*		
Batch 1201751 - SW846 5030 Soil (high level)										
Blank (1201751-BLK1)					Prepared & Analyzed: 23-Jan-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 50.0		µg/kg wet	50.0						
Acetone	< 500		µg/kg wet	500						
Acrylonitrile	< 50.0		µg/kg wet	50.0						
Benzene	< 50.0		µg/kg wet	50.0						
Bromobenzene	< 50.0		µg/kg wet	50.0						
Bromochloromethane	< 50.0		µg/kg wet	50.0						
Bromodichloromethane	< 50.0		µg/kg wet	50.0						
Bromoform	< 50.0		µg/kg wet	50.0						
Bromomethane	< 100		µg/kg wet	100						
2-Butanone (MEK)	< 500		µg/kg wet	500						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201751 - SW846 5030 Soil (high level)										
Blank (1201751-BLK1)					Prepared & Analyzed: 23-Jan-12					
n-Butylbenzene	< 50.0		µg/kg wet	50.0						
sec-Butylbenzene	< 50.0		µg/kg wet	50.0						
tert-Butylbenzene	< 50.0		µg/kg wet	50.0						
Carbon disulfide	< 100		µg/kg wet	100						
Carbon tetrachloride	< 50.0		µg/kg wet	50.0						
Chlorobenzene	< 50.0		µg/kg wet	50.0						
Chloroethane	< 100		µg/kg wet	100						
Chloroform	< 50.0		µg/kg wet	50.0						
Chloromethane	< 100		µg/kg wet	100						
2-Chlorotoluene	< 50.0		µg/kg wet	50.0						
4-Chlorotoluene	< 50.0		µg/kg wet	50.0						
1,2-Dibromo-3-chloropropane	< 100		µg/kg wet	100						
Dibromochloromethane	< 50.0		µg/kg wet	50.0						
1,2-Dibromoethane (EDB)	< 50.0		µg/kg wet	50.0						
Dibromomethane	< 50.0		µg/kg wet	50.0						
1,2-Dichlorobenzene	< 50.0		µg/kg wet	50.0						
1,3-Dichlorobenzene	< 50.0		µg/kg wet	50.0						
1,4-Dichlorobenzene	< 50.0		µg/kg wet	50.0						
Dichlorodifluoromethane (Freon12)	< 100		µg/kg wet	100						
1,1-Dichloroethane	< 50.0		µg/kg wet	50.0						
1,2-Dichloroethane	< 50.0		µg/kg wet	50.0						
1,1-Dichloroethene	< 50.0		µg/kg wet	50.0						
cis-1,2-Dichloroethene	< 50.0		µg/kg wet	50.0						
trans-1,2-Dichloroethene	< 50.0		µg/kg wet	50.0						
1,2-Dichloropropane	< 50.0		µg/kg wet	50.0						
1,3-Dichloropropane	< 50.0		µg/kg wet	50.0						
2,2-Dichloropropane	< 50.0		µg/kg wet	50.0						
1,1-Dichloropropene	< 50.0		µg/kg wet	50.0						
cis-1,3-Dichloropropene	< 50.0		µg/kg wet	50.0						
trans-1,3-Dichloropropene	< 50.0		µg/kg wet	50.0						
Ethylbenzene	< 50.0		µg/kg wet	50.0						
Hexachlorobutadiene	< 50.0		µg/kg wet	50.0						
2-Hexanone (MBK)	< 500		µg/kg wet	500						
Isopropylbenzene	< 50.0		µg/kg wet	50.0						
4-Isopropyltoluene	< 50.0		µg/kg wet	50.0						
Methyl tert-butyl ether	< 50.0		µg/kg wet	50.0						
4-Methyl-2-pentanone (MIBK)	< 500		µg/kg wet	500						
Methylene chloride	< 100		µg/kg wet	100						
Naphthalene	< 50.0		µg/kg wet	50.0						
n-Propylbenzene	< 50.0		µg/kg wet	50.0						
Styrene	< 50.0		µg/kg wet	50.0						
1,1,1,2-Tetrachloroethane	< 50.0		µg/kg wet	50.0						
1,1,2,2-Tetrachloroethane	< 50.0		µg/kg wet	50.0						
Tetrachloroethene	< 50.0		µg/kg wet	50.0						
Toluene	< 50.0		µg/kg wet	50.0						
1,2,3-Trichlorobenzene	< 50.0		µg/kg wet	50.0						
1,2,4-Trichlorobenzene	< 50.0		µg/kg wet	50.0						
1,3,5-Trichlorobenzene	< 50.0		µg/kg wet	50.0						
1,1,1-Trichloroethane	< 50.0		µg/kg wet	50.0						
1,1,2-Trichloroethane	< 50.0		µg/kg wet	50.0						
Trichloroethene	< 50.0		µg/kg wet	50.0						
Trichlorofluoromethane (Freon 11)	< 50.0		µg/kg wet	50.0						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201751 - SW846 5030 Soil (high level)										
Blank (1201751-BLK1)					Prepared & Analyzed: 23-Jan-12					
1,2,3-Trichloropropane	< 50.0		µg/kg wet	50.0						
1,2,4-Trimethylbenzene	< 50.0		µg/kg wet	50.0						
1,3,5-Trimethylbenzene	< 50.0		µg/kg wet	50.0						
Vinyl chloride	< 50.0		µg/kg wet	50.0						
m,p-Xylene	< 100		µg/kg wet	100						
o-Xylene	< 50.0		µg/kg wet	50.0						
Tetrahydrofuran	< 100		µg/kg wet	100						
Ethyl ether	< 50.0		µg/kg wet	50.0						
Tert-amyl methyl ether	< 50.0		µg/kg wet	50.0						
Ethyl tert-butyl ether	< 50.0		µg/kg wet	50.0						
Di-isopropyl ether	< 50.0		µg/kg wet	50.0						
Tert-Butanol / butyl alcohol	< 500		µg/kg wet	500						
1,4-Dioxane	< 1000		µg/kg wet	1000						
trans-1,4-Dichloro-2-butene	< 250		µg/kg wet	250						
Ethanol	< 20000		µg/kg wet	20000						
Surrogate: 4-Bromofluorobenzene	*29.7*		µg/kg wet		*30.0*		*99*	*70-130*		
Surrogate: Toluene-d8	*29.1*		µg/kg wet		*30.0*		*97*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*34.0*		µg/kg wet		*30.0*		*114*	*70-130*		
Surrogate: Dibromofluoromethane	*29.8*		µg/kg wet		*30.0*		*99*	*70-130*		
LCS (1201751-BS1)					Prepared & Analyzed: 23-Jan-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**22.8**		µg/kg wet		20.0		114	70-130		
Acetone	**21.5**		µg/kg wet		20.0		107	70-130		
Acrylonitrile	**19.2**		µg/kg wet		20.0		96	70-130		
Benzene	**21.6**		µg/kg wet		20.0		108	70-130		
Bromobenzene	**22.0**		µg/kg wet		20.0		110	70-130		
Bromochloromethane	**21.7**		µg/kg wet		20.0		108	70-130		
Bromodichloromethane	**21.9**		µg/kg wet		20.0		110	70-130		
Bromoform	**21.3**		µg/kg wet		20.0		107	70-130		
Bromomethane	**22.8**		µg/kg wet		20.0		114	70-130		
2-Butanone (MEK)	**21.1**		µg/kg wet		20.0		106	70-130		
n-Butylbenzene	**23.1**		µg/kg wet		20.0		115	70-130		
sec-Butylbenzene	**23.1**		µg/kg wet		20.0		116	70-130		
tert-Butylbenzene	**23.1**		µg/kg wet		20.0		116	70-130		
Carbon disulfide	**22.2**		µg/kg wet		20.0		111	70-130		
Carbon tetrachloride	**22.4**		µg/kg wet		20.0		112	70-130		
Chlorobenzene	**21.8**		µg/kg wet		20.0		109	70-130		
Chloroethane	**21.3**		µg/kg wet		20.0		106	70-130		
Chloroform	**21.2**		µg/kg wet		20.0		106	70-130		
Chloromethane	**21.8**		µg/kg wet		20.0		109	70-130		
2-Chlorotoluene	**22.2**		µg/kg wet		20.0		111	70-130		
4-Chlorotoluene	**22.1**		µg/kg wet		20.0		110	70-130		
1,2-Dibromo-3-chloropropane	**22.3**		µg/kg wet		20.0		112	70-130		
Dibromochloromethane	**21.7**		µg/kg wet		20.0		109	70-130		
1,2-Dibromoethane (EDB)	**22.6**		µg/kg wet		20.0		113	70-130		
Dibromomethane	**22.0**		µg/kg wet		20.0		110	70-130		
1,2-Dichlorobenzene	**22.6**		µg/kg wet		20.0		113	70-130		
1,3-Dichlorobenzene	**22.4**		µg/kg wet		20.0		112	70-130		
1,4-Dichlorobenzene	**22.4**		µg/kg wet		20.0		112	70-130		
Dichlorodifluoromethane (Freon12)	**21.0**		µg/kg wet		20.0		105	70-130		
1,1-Dichloroethane	**21.3**		µg/kg wet		20.0		107	70-130		
1,2-Dichloroethane	**23.2**		µg/kg wet		20.0		116	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201751 - SW846 5030 Soil (high level)										
LCS (1201751-BS1)					Prepared & Analyzed: 23-Jan-12					
1,1-Dichloroethene	**22.2**		µg/kg wet		20.0		111	70-130		
cis-1,2-Dichloroethene	**21.8**		µg/kg wet		20.0		109	70-130		
trans-1,2-Dichloroethene	**22.3**		µg/kg wet		20.0		111	70-130		
1,2-Dichloropropane	**21.2**		µg/kg wet		20.0		106	70-130		
1,3-Dichloropropane	**21.1**		µg/kg wet		20.0		106	70-130		
2,2-Dichloropropane	**21.0**		µg/kg wet		20.0		105	70-130		
1,1-Dichloropropene	**22.1**		µg/kg wet		20.0		110	70-130		
cis-1,3-Dichloropropene	**21.3**		µg/kg wet		20.0		106	70-130		
trans-1,3-Dichloropropene	**21.2**		µg/kg wet		20.0		106	70-130		
Ethylbenzene	**22.5**		µg/kg wet		20.0		112	70-130		
Hexachlorobutadiene	**24.2**		µg/kg wet		20.0		121	70-130		
2-Hexanone (MBK)	**20.4**		µg/kg wet		20.0		102	70-130		
Isopropylbenzene	**22.1**		µg/kg wet		20.0		110	70-130		
4-Isopropyltoluene	**23.6**		µg/kg wet		20.0		118	70-130		
Methyl tert-butyl ether	**20.6**		µg/kg wet		20.0		103	70-130		
4-Methyl-2-pentanone (MIBK)	**19.8**		µg/kg wet		20.0		99	70-130		
Methylene chloride	**20.9**		µg/kg wet		20.0		104	70-130		
Naphthalene	**23.3**		µg/kg wet		20.0		117	70-130		
n-Propylbenzene	**23.0**		µg/kg wet		20.0		115	70-130		
Styrene	**21.9**		µg/kg wet		20.0		110	70-130		
1,1,1,2-Tetrachloroethane	**23.9**		µg/kg wet		20.0		120	70-130		
1,1,2,2-Tetrachloroethane	**22.2**		µg/kg wet		20.0		111	70-130		
Tetrachloroethene	**21.5**		µg/kg wet		20.0		107	70-130		
Toluene	**22.0**		µg/kg wet		20.0		110	70-130		
1,2,3-Trichlorobenzene	**24.1**		µg/kg wet		20.0		120	70-130		
1,2,4-Trichlorobenzene	**23.1**		µg/kg wet		20.0		116	70-130		
1,3,5-Trichlorobenzene	**22.9**		µg/kg wet		20.0		114	70-130		
1,1,1-Trichloroethane	**24.2**		µg/kg wet		20.0		121	70-130		
1,1,2-Trichloroethane	**21.2**		µg/kg wet		20.0		106	70-130		
Trichloroethene	**21.8**		µg/kg wet		20.0		109	70-130		
Trichlorofluoromethane (Freon 11)	**22.4**		µg/kg wet		20.0		112	70-130		
1,2,3-Trichloropropane	**21.6**		µg/kg wet		20.0		108	70-130		
1,2,4-Trimethylbenzene	**22.4**		µg/kg wet		20.0		112	70-130		
1,3,5-Trimethylbenzene	**22.4**		µg/kg wet		20.0		112	70-130		
Vinyl chloride	**22.8**		µg/kg wet		20.0		114	70-130		
m,p-Xylene	**45.1**		µg/kg wet		40.0		113	70-130		
o-Xylene	**22.3**		µg/kg wet		20.0		112	70-130		
Tetrahydrofuran	**17.9**		µg/kg wet		20.0		90	70-130		
Ethyl ether	**20.9**		µg/kg wet		20.0		104	70-130		
Tert-amyl methyl ether	**19.9**		µg/kg wet		20.0		100	70-130		
Ethyl tert-butyl ether	**20.6**		µg/kg wet		20.0		103	70-130		
Di-isopropyl ether	**20.7**		µg/kg wet		20.0		104	70-130		
Tert-Butanol / butyl alcohol	**197**		µg/kg wet		200		98	70-130		
1,4-Dioxane	**213**		µg/kg wet		200		106	70-130		
trans-1,4-Dichloro-2-butene	**19.6**		µg/kg wet		20.0		98	70-130		
Ethanol	**380**		µg/kg wet		400		95	70-130		
Surrogate: 4-Bromofluorobenzene	*28.8*		µg/kg wet		*30.0*		*96*	*70-130*		
Surrogate: Toluene-d8	*29.8*		µg/kg wet		*30.0*		*100*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*34.5*		µg/kg wet		*30.0*		*115*	*70-130*		
Surrogate: Dibromofluoromethane	*30.9*		µg/kg wet		*30.0*		*103*	*70-130*		
LCS Dup (1201751-BSD1)					Prepared & Analyzed: 23-Jan-12					

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201751 - SW846 5030 Soil (high level)										
LCS Dup (1201751-BSD1)					Prepared & Analyzed: 23-Jan-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**24.2**		µg/kg wet		20.0		121	70-130	6	25
Acetone	**21.5**		µg/kg wet		20.0		107	70-130	0.05	50
Acrylonitrile	**18.7**		µg/kg wet		20.0		94	70-130	2	25
Benzene	**22.2**		µg/kg wet		20.0		111	70-130	3	25
Bromobenzene	**22.6**		µg/kg wet		20.0		113	70-130	3	25
Bromochloromethane	**21.9**		µg/kg wet		20.0		109	70-130	1	25
Bromodichloromethane	**22.9**		µg/kg wet		20.0		115	70-130	5	25
Bromoform	**21.6**		µg/kg wet		20.0		108	70-130	1	25
Bromomethane	**24.4**		µg/kg wet		20.0		122	70-130	7	50
2-Butanone (MEK)	**20.0**		µg/kg wet		20.0		100	70-130	6	50
n-Butylbenzene	**24.4**		µg/kg wet		20.0		122	70-130	5	25
sec-Butylbenzene	**23.7**		µg/kg wet		20.0		119	70-130	2	25
tert-Butylbenzene	**23.6**		µg/kg wet		20.0		118	70-130	2	25
Carbon disulfide	**23.1**		µg/kg wet		20.0		115	70-130	4	25
Carbon tetrachloride	**23.0**		µg/kg wet		20.0		115	70-130	3	25
Chlorobenzene	**22.8**		µg/kg wet		20.0		114	70-130	4	25
Chloroethane	**22.6**		µg/kg wet		20.0		113	70-130	6	50
Chloroform	**22.2**		µg/kg wet		20.0		111	70-130	5	25
Chloromethane	**27.9**	QM9	µg/kg wet		20.0		140	70-130	25	25
2-Chlorotoluene	**23.0**		µg/kg wet		20.0		115	70-130	4	25
4-Chlorotoluene	**22.9**		µg/kg wet		20.0		115	70-130	4	25
1,2-Dibromo-3-chloropropane	**21.7**		µg/kg wet		20.0		109	70-130	3	25
Dibromochloromethane	**22.3**		µg/kg wet		20.0		111	70-130	2	50
1,2-Dibromoethane (EDB)	**22.7**		µg/kg wet		20.0		114	70-130	0.4	25
Dibromomethane	**22.1**		µg/kg wet		20.0		111	70-130	0.4	25
1,2-Dichlorobenzene	**23.7**		µg/kg wet		20.0		119	70-130	5	25
1,3-Dichlorobenzene	**22.7**		µg/kg wet		20.0		113	70-130	1	25
1,4-Dichlorobenzene	**23.6**		µg/kg wet		20.0		118	70-130	5	25
Dichlorodifluoromethane (Freon12)	**22.3**		µg/kg wet		20.0		112	70-130	6	50
1,1-Dichloroethane	**21.7**		µg/kg wet		20.0		108	70-130	2	25
1,2-Dichloroethane	**23.5**		µg/kg wet		20.0		118	70-130	2	25
1,1-Dichloroethene	**22.9**		µg/kg wet		20.0		114	70-130	3	25
cis-1,2-Dichloroethene	**22.1**		µg/kg wet		20.0		110	70-130	1	25
trans-1,2-Dichloroethene	**23.1**		µg/kg wet		20.0		116	70-130	4	25
1,2-Dichloropropane	**21.8**		µg/kg wet		20.0		109	70-130	3	25
1,3-Dichloropropane	**21.6**		µg/kg wet		20.0		108	70-130	2	25
2,2-Dichloropropane	**21.4**		µg/kg wet		20.0		107	70-130	2	25
1,1-Dichloropropene	**23.1**		µg/kg wet		20.0		116	70-130	5	25
cis-1,3-Dichloropropene	**21.6**		µg/kg wet		20.0		108	70-130	1	25
trans-1,3-Dichloropropene	**21.6**		µg/kg wet		20.0		108	70-130	2	25
Ethylbenzene	**23.4**		µg/kg wet		20.0		117	70-130	4	25
Hexachlorobutadiene	**24.7**		µg/kg wet		20.0		123	70-130	2	50
2-Hexanone (MBK)	**20.0**		µg/kg wet		20.0		100	70-130	2	25
Isopropylbenzene	**23.1**		µg/kg wet		20.0		116	70-130	5	25
4-Isopropyltoluene	**24.8**		µg/kg wet		20.0		124	70-130	5	25
Methyl tert-butyl ether	**20.8**		µg/kg wet		20.0		104	70-130	1	25
4-Methyl-2-pentanone (MIBK)	**19.8**		µg/kg wet		20.0		99	70-130	0.2	50
Methylene chloride	**21.5**		µg/kg wet		20.0		108	70-130	3	25
Naphthalene	**23.9**		µg/kg wet		20.0		120	70-130	3	25
n-Propylbenzene	**23.9**		µg/kg wet		20.0		120	70-130	4	25
Styrene	**23.3**		µg/kg wet		20.0		117	70-130	6	25
1,1,1,2-Tetrachloroethane	**24.1**		µg/kg wet		20.0		121	70-130	0.8	25

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201751 - SW846 5030 Soil (high level)										
LCS Dup (1201751-BSD1)					Prepared & Analyzed: 23-Jan-12					
1,1,2,2-Tetrachloroethane	**22.3**		µg/kg wet		20.0		111	70-130	0.5	25
Tetrachloroethene	**22.3**		µg/kg wet		20.0		112	70-130	4	25
Toluene	**22.6**		µg/kg wet		20.0		113	70-130	3	25
1,2,3-Trichlorobenzene	**23.9**		µg/kg wet		20.0		120	70-130	0.5	25
1,2,4-Trichlorobenzene	**23.9**		µg/kg wet		20.0		120	70-130	3	25
1,3,5-Trichlorobenzene	**23.8**		µg/kg wet		20.0		119	70-130	4	25
1,1,1-Trichloroethane	**25.0**		µg/kg wet		20.0		125	70-130	3	25
1,1,2-Trichloroethane	**21.5**		µg/kg wet		20.0		107	70-130	2	25
Trichloroethene	**22.5**		µg/kg wet		20.0		113	70-130	4	25
Trichlorofluoromethane (Freon 11)	**23.6**		µg/kg wet		20.0		118	70-130	5	50
1,2,3-Trichloropropane	**21.9**		µg/kg wet		20.0		110	70-130	1	25
1,2,4-Trimethylbenzene	**23.4**		µg/kg wet		20.0		117	70-130	5	25
1,3,5-Trimethylbenzene	**23.6**		µg/kg wet		20.0		118	70-130	5	25
Vinyl chloride	**23.9**		µg/kg wet		20.0		120	70-130	5	25
m,p-Xylene	**46.9**		µg/kg wet		40.0		117	70-130	4	25
o-Xylene	**23.2**		µg/kg wet		20.0		116	70-130	4	25
Tetrahydrofuran	**19.3**		µg/kg wet		20.0		97	70-130	7	25
Ethyl ether	**20.9**		µg/kg wet		20.0		104	70-130	0.05	50
Tert-amyl methyl ether	**20.0**		µg/kg wet		20.0		100	70-130	0.5	25
Ethyl tert-butyl ether	**21.0**		µg/kg wet		20.0		105	70-130	2	25
Di-isopropyl ether	**21.1**		µg/kg wet		20.0		106	70-130	2	25
Tert-Butanol / butyl alcohol	**191**		µg/kg wet		200		96	70-130	3	25
1,4-Dioxane	**217**		µg/kg wet		200		108	70-130	2	25
trans-1,4-Dichloro-2-butene	**20.3**		µg/kg wet		20.0		102	70-130	4	25
Ethanol	**387**		µg/kg wet		400		97	70-130	2	30
Surrogate: 4-Bromofluorobenzene	*28.6*		µg/kg wet		*30.0*		*95*	*70-130*		
Surrogate: Toluene-d8	*29.7*		µg/kg wet		*30.0*		*99*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*33.9*		µg/kg wet		*30.0*		*113*	*70-130*		
Surrogate: Dibromofluoromethane	*30.3*		µg/kg wet		*30.0*		*101*	*70-130*		
Batch 1201825 - VPH - EPA 5030B										
Blank (1201825-BLK1)					Prepared & Analyzed: 24-Jan-12					
C5-C8 Aliphatic Hydrocarbons	< 0.750		mg/kg wet	0.750						
C9-C12 Aliphatic Hydrocarbons	< 0.250		mg/kg wet	0.250						
C9-C10 Aromatic Hydrocarbons	< 0.250		mg/kg wet	0.250						
Unadjusted C5-C8 Aliphatic Hydrocarbons	< 0.750		mg/kg wet	0.750						
Unadjusted C9-C12 Aliphatic Hydrocarbons	< 0.250		mg/kg wet	0.250						
Benzene	< 0.05		mg/kg wet	0.05						
Ethylbenzene	< 0.05		mg/kg wet	0.05						
Methyl tert-butyl ether	< 0.05		mg/kg wet	0.05						
Naphthalene	< 0.05		mg/kg wet	0.05						
Toluene	< 0.05		mg/kg wet	0.05						
m,p-Xylene	< 0.1		mg/kg wet	0.1						
o-Xylene	< 0.05		mg/kg wet	0.05						
2-Methylpentane	< 0.05		mg/kg wet	0.05						
n-Nonane	< 0.1		mg/kg wet	0.1						
n-Pentane	< 0.1		mg/kg wet	0.1						
1,2,4-Trimethylbenzene	< 0.05		mg/kg wet	0.05						
2,2,4-Trimethylpentane	< 0.05		mg/kg wet	0.05						
n-Butylcyclohexane	< 0.05		mg/kg wet	0.05						
n-Decane	< 0.05		mg/kg wet	0.05						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201825 - VPH - EPA 5030B										
Blank (1201825-BLK1)						Prepared & Analyzed: 24-Jan-12				
Surrogate: 2,5-Dibromotoluene (FID)	*42.8*		mg/kg wet		*50.0*		*86*	*70-130*		
Surrogate: 2,5-Dibromotoluene (PID)	*37.5*		mg/kg wet		*50.0*		*75*	*70-130*		
LCS (1201825-BS1)						Prepared & Analyzed: 24-Jan-12				
C5-C8 Aliphatic Hydrocarbons	**70.6**		mg/kg wet		60.0		118	70-130		
C9-C12 Aliphatic Hydrocarbons	**56.9**		mg/kg wet		60.0		95	70-130		
C9-C10 Aromatic Hydrocarbons	**16.2**		mg/kg wet		20.0		81	70-130		
Unadjusted C5-C8 Aliphatic Hydrocarbons	**194**		mg/kg wet		200		97	70-130		
Unadjusted C9-C12 Aliphatic Hydrocarbons	**73.2**		mg/kg wet		80.0		91	70-130		
Benzene	**19.2**		mg/kg wet		20.0		96	70-130		
Ethylbenzene	**16.6**		mg/kg wet		20.0		83	70-130		
Methyl tert-butyl ether	**19.3**		mg/kg wet		20.0		97	70-130		
Naphthalene	**16.3**		mg/kg wet		20.0		81	70-130		
Toluene	**18.3**		mg/kg wet		20.0		91	70-130		
m,p-Xylene	**33.0**		mg/kg wet		40.0		83	70-130		
o-Xylene	**16.6**		mg/kg wet		20.0		83	70-130		
2-Methylpentane	**19.9**		mg/kg wet		20.0		99	70-130		
n-Nonane	**16.7**		mg/kg wet		20.0		83	70-130		
n-Pentane	**19.0**		mg/kg wet		20.0		95	70-130		
1,2,4-Trimethylbenzene	**16.0**		mg/kg wet		20.0		80	70-130		
2,2,4-Trimethylpentane	**20.4**		mg/kg wet		20.0		102	70-130		
n-Butylcyclohexane	**16.3**		mg/kg wet		20.0		82	70-130		
n-Decane	**14.4**		mg/kg wet		20.0		72	70-130		
Surrogate: 2,5-Dibromotoluene (FID)	*42.0*		mg/kg wet		*50.0*		*84*	*70-130*		
Surrogate: 2,5-Dibromotoluene (PID)	*36.4*		mg/kg wet		*50.0*		*73*	*70-130*		
LCS Dup (1201825-BSD1)						Prepared & Analyzed: 24-Jan-12				
C5-C8 Aliphatic Hydrocarbons	**61.4**		mg/kg wet		60.0		102	70-130	14	25
C9-C12 Aliphatic Hydrocarbons	**59.3**		mg/kg wet		60.0		99	70-130	4	25
C9-C10 Aromatic Hydrocarbons	**17.6**		mg/kg wet		20.0		88	70-130	8	25
Unadjusted C5-C8 Aliphatic Hydrocarbons	**196**		mg/kg wet		200		98	70-130	1	25
Unadjusted C9-C12 Aliphatic Hydrocarbons	**76.9**		mg/kg wet		80.0		96	70-130	5	25
Benzene	**19.4**		mg/kg wet		20.0		97	70-130	0.8	25
Ethylbenzene	**19.0**		mg/kg wet		20.0		95	70-130	13	25
Methyl tert-butyl ether	**19.2**		mg/kg wet		20.0		96	70-130	0.7	25
Naphthalene	**19.9**		mg/kg wet		20.0		99	70-130	20	25
Toluene	**19.8**		mg/kg wet		20.0		99	70-130	8	25
m,p-Xylene	**37.9**		mg/kg wet		40.0		95	70-130	14	25
o-Xylene	**19.4**		mg/kg wet		20.0		97	70-130	15	25
2-Methylpentane	**17.5**		mg/kg wet		20.0		88	70-130	13	25
n-Nonane	**19.2**		mg/kg wet		20.0		96	70-130	14	25
n-Pentane	**16.7**		mg/kg wet		20.0		84	70-130	13	25
1,2,4-Trimethylbenzene	**18.7**		mg/kg wet		20.0		93	70-130	16	25
2,2,4-Trimethylpentane	**18.7**		mg/kg wet		20.0		94	70-130	8	25
n-Butylcyclohexane	**19.8**		mg/kg wet		20.0		99	70-130	19	25
n-Decane	**20.8**	QR2	mg/kg wet		20.0		104	70-130	36	25
Surrogate: 2,5-Dibromotoluene (FID)	*50.0*		mg/kg wet		*50.0*		*100*	*70-130*		
Surrogate: 2,5-Dibromotoluene (PID)	*41.0*		mg/kg wet		*50.0*		*82*	*70-130*		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201586 - SW846 3545A										
Blank (1201586-BLK1)					Prepared & Analyzed: 20-Jan-12					
Aroclor-1016	< 20.0		µg/kg wet	20.0						
Aroclor-1016 [2C]	< 20.0		µg/kg wet	20.0						
Aroclor-1221	< 20.0		µg/kg wet	20.0						
Aroclor-1221 [2C]	< 20.0		µg/kg wet	20.0						
Aroclor-1232	< 20.0		µg/kg wet	20.0						
Aroclor-1232 [2C]	< 20.0		µg/kg wet	20.0						
Aroclor-1242	< 20.0		µg/kg wet	20.0						
Aroclor-1242 [2C]	< 20.0		µg/kg wet	20.0						
Aroclor-1248	< 20.0		µg/kg wet	20.0						
Aroclor-1248 [2C]	< 20.0		µg/kg wet	20.0						
Aroclor-1254	< 20.0		µg/kg wet	20.0						
Aroclor-1254 [2C]	< 20.0		µg/kg wet	20.0						
Aroclor-1260	< 20.0		µg/kg wet	20.0						
Aroclor-1260 [2C]	< 20.0		µg/kg wet	20.0						
Aroclor-1262	< 20.0		µg/kg wet	20.0						
Aroclor-1262 [2C]	< 20.0		µg/kg wet	20.0						
Aroclor-1268	< 20.0		µg/kg wet	20.0						
Aroclor-1268 [2C]	< 20.0		µg/kg wet	20.0						
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	*14.0*		µg/kg wet		*20.0*		*70*	*30-150*		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C]	*18.0*		µg/kg wet		*20.0*		*90*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr)	*25.0*		µg/kg wet		*20.0*		*125*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr) [2C]	*25.0*		µg/kg wet		*20.0*		*125*	*30-150*		
LCS (1201586-BS1)					Prepared & Analyzed: 20-Jan-12					
Aroclor-1016	**200**		µg/kg wet	20.0	250		80	50-140		
Aroclor-1016 [2C]	**225**		µg/kg wet	20.0	250		90	50-140		
Aroclor-1260	**187**		µg/kg wet	20.0	250		75	50-140		
Aroclor-1260 [2C]	**209**		µg/kg wet	20.0	250		84	50-140		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	*16.0*		µg/kg wet		*20.0*		*80*	*30-150*		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C]	*17.0*		µg/kg wet		*20.0*		*85*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr)	*25.0*		µg/kg wet		*20.0*		*125*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr) [2C]	*24.0*		µg/kg wet		*20.0*		*120*	*30-150*		
LCS Dup (1201586-BSD1)					Prepared & Analyzed: 20-Jan-12					
Aroclor-1016	**201**		µg/kg wet	20.0	250		80	50-140	0.5	30
Aroclor-1016 [2C]	**215**		µg/kg wet	20.0	250		86	50-140	5	30
Aroclor-1260	**196**		µg/kg wet	20.0	250		78	50-140	5	30
Aroclor-1260 [2C]	**218**		µg/kg wet	20.0	250		87	50-140	4	30
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	*16.0*		µg/kg wet		*20.0*		*80*	*30-150*		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C]	*17.0*		µg/kg wet		*20.0*		*85*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr)	*27.0*		µg/kg wet		*20.0*		*135*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr) [2C]	*25.0*		µg/kg wet		*20.0*		*125*	*30-150*		
Duplicate (1201586-DUP1)			**Source: SB42546-06**		Prepared & Analyzed: 20-Jan-12					
Aroclor-1016	< 22.0		µg/kg dry	22.0		BRL				40
Aroclor-1016 [2C]	< 22.0		µg/kg dry	22.0		BRL				40
Aroclor-1221	< 22.0		µg/kg dry	22.0		BRL				40
Aroclor-1221 [2C]	< 22.0		µg/kg dry	22.0		BRL				40
Aroclor-1232	< 22.0		µg/kg dry	22.0		BRL				40
Aroclor-1232 [2C]	< 22.0		µg/kg dry	22.0		BRL				40
Aroclor-1242	< 22.0		µg/kg dry	22.0		BRL				40
Aroclor-1242 [2C]	< 22.0		µg/kg dry	22.0		BRL				40
Aroclor-1248	< 22.0		µg/kg dry	22.0		BRL				40

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201586 - SW846 3545A										
Duplicate (1201586-DUP1)			**Source: SB42546-06**			Prepared & Analyzed: 20-Jan-12				
Aroclor-1248 [2C]	< 22.0		µg/kg dry	22.0		BRL				40
Aroclor-1254	< 22.0		µg/kg dry	22.0		BRL				40
Aroclor-1254 [2C]	< 22.0		µg/kg dry	22.0		BRL				40
Aroclor-1260	< 22.0		µg/kg dry	22.0		BRL				40
Aroclor-1260 [2C]	< 22.0		µg/kg dry	22.0		BRL				40
Aroclor-1262	< 22.0		µg/kg dry	22.0		BRL				40
Aroclor-1262 [2C]	< 22.0		µg/kg dry	22.0		BRL				40
Aroclor-1268	< 22.0		µg/kg dry	22.0		BRL				40
Aroclor-1268 [2C]	< 22.0		µg/kg dry	22.0		BRL				40
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	*12.1*		µg/kg dry		*22.0*		*55*	*30-150*		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C]	*14.3*		µg/kg dry		*22.0*		*65*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr)	*22.0*		µg/kg dry		*22.0*		*100*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr) [2C]	*19.8*		µg/kg dry		*22.0*		*90*	*30-150*		
Matrix Spike (1201586-MS1)			**Source: SB42546-06**			Prepared & Analyzed: 20-Jan-12				
Aroclor-1016	**210**		µg/kg dry	21.1	264	BRL	80	40-135		
Aroclor-1016 [2C]	**209**		µg/kg dry	21.1	264	BRL	79	40-135		
Aroclor-1260	**185**		µg/kg dry	21.1	264	BRL	70	40-135		
Aroclor-1260 [2C]	**189**		µg/kg dry	21.1	264	BRL	72	40-135		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	*13.7*		µg/kg dry		*21.1*		*65*	*30-150*		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C]	*14.8*		µg/kg dry		*21.1*		*70*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr)	*25.3*		µg/kg dry		*21.1*		*120*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr) [2C]	*22.2*		µg/kg dry		*21.1*		*105*	*30-150*		
Matrix Spike Dup (1201586-MSD1)			**Source: SB42546-06**			Prepared & Analyzed: 20-Jan-12				
Aroclor-1016	**196**		µg/kg dry	21.7	271	BRL	72	40-135	9	30
Aroclor-1016 [2C]	**213**		µg/kg dry	21.7	271	BRL	78	40-135	1	30
Aroclor-1260	**188**		µg/kg dry	21.7	271	BRL	69	40-135	1	30
Aroclor-1260 [2C]	**200**		µg/kg dry	21.7	271	BRL	74	40-135	3	30
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	*15.2*		µg/kg dry		*21.7*		*70*	*30-150*		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C]	*15.2*		µg/kg dry		*21.7*		*70*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr)	*24.9*		µg/kg dry		*21.7*		*115*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr) [2C]	*23.9*		µg/kg dry		*21.7*		*110*	*30-150*		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201380 - SW846 3545A										
Blank (1201380-BLK1)						Prepared & Analyzed: 18-Jan-12				
C9-C18 Aliphatic Hydrocarbons	< 5.00		mg/kg wet	5.00						
C19-C36 Aliphatic Hydrocarbons	< 5.00		mg/kg wet	5.00						
C11-C22 Aromatic Hydrocarbons	< 5.00		mg/kg wet	5.00						
Unadjusted C11-C22 Aromatic Hydrocarbons	< 5.00		mg/kg wet	5.00						
Total Petroleum Hydrocarbons	< 5.00		mg/kg wet	5.00						
Unadjusted Total Petroleum Hydrocarbons	< 5.00		mg/kg wet	5.00						
Naphthalene	< 0.166		mg/kg wet	0.166						
2-Methylnaphthalene	< 0.166		mg/kg wet	0.166						
Acenaphthylene	< 0.166		mg/kg wet	0.166						
Acenaphthene	< 0.166		mg/kg wet	0.166						
Fluorene	< 0.166		mg/kg wet	0.166						
Phenanthrene	< 0.166		mg/kg wet	0.166						
Anthracene	< 0.166		mg/kg wet	0.166						
Fluoranthene	< 0.166		mg/kg wet	0.166						
Pyrene	< 0.166		mg/kg wet	0.166						
Benzo (a) anthracene	< 0.166		mg/kg wet	0.166						
Chrysene	< 0.166		mg/kg wet	0.166						
Benzo (b) fluoranthene	< 0.166		mg/kg wet	0.166						
Benzo (k) fluoranthene	< 0.166		mg/kg wet	0.166						
Benzo (a) pyrene	< 0.166		mg/kg wet	0.166						
Indeno (1,2,3-cd) pyrene	< 0.166		mg/kg wet	0.166						
Dibenzo (a,h) anthracene	< 0.166		mg/kg wet	0.166						
Benzo (g,h,i) perylene	< 0.166		mg/kg wet	0.166						
n-Nonane (C9)	< 0.166		mg/kg wet	0.166						
n-Decane	< 0.166		mg/kg wet	0.166						
n-Dodecane	< 0.166		mg/kg wet	0.166						
n-Tetradecane	< 0.166		mg/kg wet	0.166						
n-Hexadecane	< 0.166		mg/kg wet	0.166						
n-Octadecane	< 0.166		mg/kg wet	0.166						
n-Nonadecane	< 0.166		mg/kg wet	0.166						
n-Eicosane	< 0.166		mg/kg wet	0.166						
n-Docosane	< 0.166		mg/kg wet	0.166						
n-Tetracosane	< 0.166		mg/kg wet	0.166						
n-Hexacosane	< 0.166		mg/kg wet	0.166						
n-Octacosane	< 0.166		mg/kg wet	0.166						
n-Triacontane	< 0.166		mg/kg wet	0.166						
n-Hexatriacontane	< 0.166		mg/kg wet	0.166						
Naphthalene (aliphatic fraction)	**0.00**		mg/kg wet							
2-Methylnaphthalene (aliphatic fraction)	**0.00**		mg/kg wet							
Surrogate: 1-Chlorooctadecane	*3.89*		mg/kg wet		*3.33*		*117*	*40-140*		
Surrogate: Ortho-Terphenyl	*2.04*		mg/kg wet		*3.33*		*61*	*40-140*		
Surrogate: 2-Fluorobiphenyl	*1.81*		mg/kg wet		*2.67*		*68*	*40-140*		
LCS (1201380-BS1)						Prepared & Analyzed: 18-Jan-12				
C9-C18 Aliphatic Hydrocarbons	**29.1**		mg/kg wet	5.00	40.0		73	40-140		
C19-C36 Aliphatic Hydrocarbons	**29.8**		mg/kg wet	5.00	53.3		56	40-140		
C11-C22 Aromatic Hydrocarbons	**53.3**		mg/kg wet	5.00	113		47	40-140		
Naphthalene	**3.02**		mg/kg wet	0.166	6.67		45	40-140		
2-Methylnaphthalene	**3.11**		mg/kg wet	0.166	6.67		47	40-140		
Acenaphthylene	**3.36**		mg/kg wet	0.166	6.67		50	40-140		
Acenaphthene	**3.43**		mg/kg wet	0.166	6.67		51	40-140		
Fluorene	**3.63**		mg/kg wet	0.166	6.67		54	40-140		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201380 - SW846 3545A										
LCS (1201380-BS1)					Prepared & Analyzed: 18-Jan-12					
Phenanthrene	**3.88**		mg/kg wet	0.166	6.67		58	40-140		
Anthracene	**3.46**		mg/kg wet	0.166	6.67		52	40-140		
Fluoranthene	**3.99**		mg/kg wet	0.166	6.67		60	40-140		
Pyrene	**3.94**		mg/kg wet	0.166	6.67		59	40-140		
Benzo (a) anthracene	**4.04**		mg/kg wet	0.166	6.67		61	40-140		
Chrysene	**3.98**		mg/kg wet	0.166	6.67		60	40-140		
Benzo (b) fluoranthene	**4.18**		mg/kg wet	0.166	6.67		63	40-140		
Benzo (k) fluoranthene	**3.79**		mg/kg wet	0.166	6.67		57	40-140		
Benzo (a) pyrene	**3.61**		mg/kg wet	0.166	6.67		54	40-140		
Indeno (1,2,3-cd) pyrene	**3.86**		mg/kg wet	0.166	6.67		58	40-140		
Dibenzo (a,h) anthracene	**3.80**		mg/kg wet	0.166	6.67		57	40-140		
Benzo (g,h,i) perylene	**3.70**		mg/kg wet	0.166	6.67		56	40-140		
n-Nonane (C9)	**3.69**		mg/kg wet	0.166	6.67		55	30-140		
n-Decane	**4.26**		mg/kg wet	0.166	6.67		64	40-140		
n-Dodecane	**4.61**		mg/kg wet	0.166	6.67		69	40-140		
n-Tetradecane	**5.09**		mg/kg wet	0.166	6.67		76	40-140		
n-Hexadecane	**5.50**		mg/kg wet	0.166	6.67		82	40-140		
n-Octadecane	**5.77**		mg/kg wet	0.166	6.67		87	40-140		
n-Nonadecane	**5.85**		mg/kg wet	0.166	6.67		88	40-140		
n-Eicosane	**5.94**		mg/kg wet	0.166	6.67		89	40-140		
n-Docosane	**6.05**		mg/kg wet	0.166	6.67		91	40-140		
n-Tetracosane	**5.98**		mg/kg wet	0.166	6.67		90	40-140		
n-Hexacosane	**5.96**		mg/kg wet	0.166	6.67		89	40-140		
n-Octacosane	**6.01**		mg/kg wet	0.166	6.67		90	40-140		
n-Triacontane	**5.77**		mg/kg wet	0.166	6.67		87	40-140		
n-Hexatriacontane	**5.56**		mg/kg wet	0.166	6.67		83	40-140		
Naphthalene (aliphatic fraction)	**0.00**		mg/kg wet					0-200		
2-Methylnaphthalene (aliphatic fraction)	**0.00**		mg/kg wet					0-200		
Surrogate: 1-Chlorooctadecane	*2.93*		mg/kg wet		*3.33*		*88*	*40-140*		
Surrogate: Ortho-Terphenyl	*1.80*		mg/kg wet		*3.33*		*54*	*40-140*		
Surrogate: 2-Fluorobiphenyl	*1.63*		mg/kg wet		*2.67*		*61*	*40-140*		
Naphthalene Breakthrough	0.00		%					0-5		
2-Methylnaphthalene Breakthrough	0.00		%					0-5		
LCS (1201380-BS2)					Prepared: 18-Jan-12 Analyzed: 19-Jan-12					
C9-C18 Aliphatic Hydrocarbons	**23.8**		mg/kg wet	5.00	40.0		60	40-140		
C19-C36 Aliphatic Hydrocarbons	**47.5**		mg/kg wet	5.00	53.3		89	40-140		
C11-C22 Aromatic Hydrocarbons	**72.7**		mg/kg wet	5.00	113		64	40-140		
Naphthalene	**4.17**		mg/kg wet	0.166	6.67		62	40-140		
2-Methylnaphthalene	**4.10**		mg/kg wet	0.166	6.67		61	40-140		
Acenaphthylene	**4.73**		mg/kg wet	0.166	6.67		71	40-140		
Acenaphthene	**4.91**		mg/kg wet	0.166	6.67		74	40-140		
Fluorene	**4.89**		mg/kg wet	0.166	6.67		73	40-140		
Phenanthrene	**4.58**		mg/kg wet	0.166	6.67		69	40-140		
Anthracene	**4.50**		mg/kg wet	0.166	6.67		68	40-140		
Fluoranthene	**4.67**		mg/kg wet	0.166	6.67		70	40-140		
Pyrene	**4.52**		mg/kg wet	0.166	6.67		68	40-140		
Benzo (a) anthracene	**3.98**		mg/kg wet	0.166	6.67		60	40-140		
Chrysene	**4.06**		mg/kg wet	0.166	6.67		61	40-140		
Benzo (b) fluoranthene	**3.88**		mg/kg wet	0.166	6.67		58	40-140		
Benzo (k) fluoranthene	**3.62**		mg/kg wet	0.166	6.67		54	40-140		
Benzo (a) pyrene	**3.17**		mg/kg wet	0.166	6.67		48	40-140		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201380 - SW846 3545A										
LCS (1201380-BS2)					Prepared: 18-Jan-12 Analyzed: 19-Jan-12					
Indeno (1,2,3-cd) pyrene	**3.12**		mg/kg wet	0.166	6.67		47	40-140		
Dibenzo (a,h) anthracene	**3.13**		mg/kg wet	0.166	6.67		47	40-140		
Benzo (g,h,i) perylene	**3.14**		mg/kg wet	0.166	6.67		47	40-140		
n-Nonane (C9)	**3.53**		mg/kg wet	0.166	6.67		53	30-140		
n-Decane	**4.05**		mg/kg wet	0.166	6.67		61	40-140		
n-Dodecane	**4.21**		mg/kg wet	0.166	6.67		63	40-140		
n-Tetradecane	**4.72**		mg/kg wet	0.166	6.67		71	40-140		
n-Hexadecane	**5.17**		mg/kg wet	0.166	6.67		78	40-140		
n-Octadecane	**5.36**		mg/kg wet	0.166	6.67		80	40-140		
n-Nonadecane	**5.41**		mg/kg wet	0.166	6.67		81	40-140		
n-Eicosane	**5.46**		mg/kg wet	0.166	6.67		82	40-140		
n-Docosane	**5.49**		mg/kg wet	0.166	6.67		82	40-140		
n-Tetracosane	**5.41**		mg/kg wet	0.166	6.67		81	40-140		
n-Hexacosane	**5.39**		mg/kg wet	0.166	6.67		81	40-140		
n-Octacosane	**5.46**		mg/kg wet	0.166	6.67		82	40-140		
n-Triacontane	**5.26**		mg/kg wet	0.166	6.67		79	40-140		
n-Hexatriacontane	**5.31**		mg/kg wet	0.166	6.67		80	40-140		
Naphthalene (aliphatic fraction)	**0.00**		mg/kg wet					0-200		
2-Methylnaphthalene (aliphatic fraction)	**0.00**		mg/kg wet					0-200		
Surrogate: 1-Chlorooctadecane	*2.51*		mg/kg wet		*3.33*		*75*	*40-140*		
Surrogate: Ortho-Terphenyl	*2.42*		mg/kg wet		*3.33*		*72*	*40-140*		
Surrogate: 2-Fluorobiphenyl	*2.18*		mg/kg wet		*2.67*		*82*	*40-140*		
Naphthalene Breakthrough	0.00		%					0-5		
2-Methylnaphthalene Breakthrough	0.00		%					0-5		
LCS Dup (1201380-BSD1)					Prepared & Analyzed: 18-Jan-12					
C9-C18 Aliphatic Hydrocarbons	**25.4**		mg/kg wet	5.00	40.0		64	40-140	13	25
C19-C36 Aliphatic Hydrocarbons	**24.3**		mg/kg wet	5.00	53.3		46	40-140	20	25
C11-C22 Aromatic Hydrocarbons	**58.7**		mg/kg wet	5.00	113		52	40-140	10	25
Naphthalene	**3.18**		mg/kg wet	0.166	6.67		48	40-140	5	25
2-Methylnaphthalene	**3.22**		mg/kg wet	0.166	6.67		48	40-140	3	25
Acenaphthylene	**3.64**		mg/kg wet	0.166	6.67		55	40-140	8	25
Acenaphthene	**3.59**		mg/kg wet	0.166	6.67		54	40-140	5	25
Fluorene	**3.91**		mg/kg wet	0.166	6.67		59	40-140	7	25
Phenanthrene	**4.15**		mg/kg wet	0.166	6.67		62	40-140	7	25
Anthracene	**4.02**		mg/kg wet	0.166	6.67		60	40-140	15	25
Fluoranthene	**4.28**		mg/kg wet	0.166	6.67		64	40-140	7	25
Pyrene	**4.26**		mg/kg wet	0.166	6.67		64	40-140	8	25
Benzo (a) anthracene	**4.39**		mg/kg wet	0.166	6.67		66	40-140	8	25
Chrysene	**4.06**		mg/kg wet	0.166	6.67		61	40-140	2	25
Benzo (b) fluoranthene	**4.20**		mg/kg wet	0.166	6.67		63	40-140	0.4	25
Benzo (k) fluoranthene	**4.25**		mg/kg wet	0.166	6.67		64	40-140	11	25
Benzo (a) pyrene	**3.92**		mg/kg wet	0.166	6.67		59	40-140	8	25
Indeno (1,2,3-cd) pyrene	**4.01**		mg/kg wet	0.166	6.67		60	40-140	4	25
Dibenzo (a,h) anthracene	**4.02**		mg/kg wet	0.166	6.67		60	40-140	6	25
Benzo (g,h,i) perylene	**4.01**		mg/kg wet	0.166	6.67		60	40-140	8	25
n-Nonane (C9)	**3.13**		mg/kg wet	0.166	6.67		47	30-140	17	25
n-Decane	**3.62**		mg/kg wet	0.166	6.67		54	40-140	16	25
n-Dodecane	**3.95**		mg/kg wet	0.166	6.67		59	40-140	15	25
n-Tetradecane	**4.44**		mg/kg wet	0.166	6.67		67	40-140	14	25
n-Hexadecane	**4.89**		mg/kg wet	0.166	6.67		73	40-140	12	25
n-Octadecane	**5.22**		mg/kg wet	0.166	6.67		78	40-140	10	25

Extractable Petroleum Hydrocarbons - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201380 - SW846 3545A										
LCS Dup (1201380-BSD1)					Prepared & Analyzed: 18-Jan-12					
n-Nonadecane	**5.30**		mg/kg wet	0.166	6.67		80	40-140	10	25
n-Eicosane	**5.37**		mg/kg wet	0.166	6.67		81	40-140	10	25
n-Docosane	**5.46**		mg/kg wet	0.166	6.67		82	40-140	10	25
n-Tetracosane	**5.34**		mg/kg wet	0.166	6.67		80	40-140	11	25
n-Hexacosane	**5.32**		mg/kg wet	0.166	6.67		80	40-140	11	25
n-Octacosane	**5.33**		mg/kg wet	0.166	6.67		80	40-140	12	25
n-Triacontane	**5.04**		mg/kg wet	0.166	6.67		76	40-140	13	25
n-Hexatriacontane	**4.59**		mg/kg wet	0.166	6.67		69	40-140	19	25
Naphthalene (aliphatic fraction)	**0.00**		mg/kg wet					0-200		200
2-Methylnaphthalene (aliphatic fraction)	**0.00**		mg/kg wet					0-200		200
Surrogate: 1-Chlorooctadecane	*2.04*		mg/kg wet		*3.33*		*61*	*40-140*		
Surrogate: Ortho-Terphenyl	*2.12*		mg/kg wet		*3.33*		*64*	*40-140*		
Surrogate: 2-Fluorobiphenyl	*1.93*		mg/kg wet		*2.67*		*72*	*40-140*		
Naphthalene Breakthrough	0.00		%					0-5		
2-Methylnaphthalene Breakthrough	0.00		%					0-5		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201419 - SW846 3050B										
Blank (1201419-BLK1)						Prepared: 19-Jan-12 Analyzed: 20-Jan-12				
Magnesium	< 4.47		mg/kg wet	4.47						
Iron	< 3.57		mg/kg wet	3.57						
Zinc	< 0.894		mg/kg wet	0.894						
Vanadium	< 1.34		mg/kg wet	1.34						
Thallium	< 2.68		mg/kg wet	2.68						
Selenium	< 1.34		mg/kg wet	1.34						
Antimony	< 4.47		mg/kg wet	4.47						
Lead	< 1.34		mg/kg wet	1.34						
Nickel	< 0.894		mg/kg wet	0.894						
Manganese	< 0.894		mg/kg wet	0.894						
Potassium	< 44.7		mg/kg wet	44.7						
Sodium	< 22.3		mg/kg wet	22.3						
Copper	< 0.894		mg/kg wet	0.894						
Chromium	< 0.894		mg/kg wet	0.894						
Cobalt	< 0.894		mg/kg wet	0.894						
Cadmium	< 0.447		mg/kg wet	0.447						
Calcium	< 22.3		mg/kg wet	22.3						
Arsenic	< 1.34		mg/kg wet	1.34						
Aluminum	< 4.47		mg/kg wet	4.47						
Silver	< 1.34		mg/kg wet	1.34						
Beryllium	< 0.447		mg/kg wet	0.447						
Barium	< 0.894		mg/kg wet	0.894						
Reference (1201419-SRM1)						Prepared: 19-Jan-12 Analyzed: 20-Jan-12				
Nickel	**36.4**		mg/kg wet	1.00	35.7		102	83.3-116.6		
Iron	**6440**		mg/kg wet	4.00	6170		104	50.7-149.6		
Potassium	**1580**		mg/kg wet	50.0	1480		107	73.3-127		
Zinc	**139**		mg/kg wet	1.00	140		99	82.1-117.9		
Vanadium	**44.1**		mg/kg wet	1.50	43.2		102	79.4-120.8		
Thallium	**152**		mg/kg wet	3.00	133		114	81.2-118.8		
Selenium	**65.7**		mg/kg wet	1.50	63.7		103	80.3-119.7		
Antimony	**54.2**		mg/kg wet	5.00	53.2		102	9.2-192		
Lead	**38.8**		mg/kg wet	1.50	38.2		101	83.6-116.5		
Sodium	**192**		mg/kg wet	25.0	181		106	73.3-126.9		
Manganese	**176**		mg/kg wet	1.00	176		100	82.6-117.4		
Magnesium	**1220**		mg/kg wet	5.00	1320		92	78-122		
Silver	**21.1**		mg/kg wet	1.50	20.6		103	66.1-133.7		
Copper	**62.8**		mg/kg wet	1.00	58.7		107	83.8-116.2		
Chromium	**61.6**		mg/kg wet	1.00	58.7		105	81.7-117.9		
Cobalt	**65.1**		mg/kg wet	1.00	63.7		102	82.7-116.5		
Cadmium	**41.2**		mg/kg wet	0.500	40.2		102	84-116		
Calcium	**3250**		mg/kg wet	25.0	3360		97	83.1-116.9		
Beryllium	**41.8**		mg/kg wet	0.500	44.2		94	83.8-115.6		
Arsenic	**58.2**		mg/kg wet	1.50	54.7		107	82.9-117.4		
Aluminum	**4050**		mg/kg wet	5.00	4210		96	40.8-159.7		
Barium	**103**		mg/kg wet	1.00	103		100	83.5-116.5		
Reference (1201419-SRM2)						Prepared: 19-Jan-12 Analyzed: 20-Jan-12				
Nickel	**35.5**		mg/kg wet	1.00	36.5		97	83.3-116.6		
Potassium	**1590**		mg/kg wet	50.0	1520		105	73.3-127		
Magnesium	**1230**		mg/kg wet	5.00	1350		91	78-122		
Sodium	**187**		mg/kg wet	25.0	184		101	73.3-126.9		
Lead	**38.5**		mg/kg wet	1.50	39.1		99	83.6-116.5		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201419 - SW846 3050B										
Reference (1201419-SRM2)					Prepared: 19-Jan-12 Analyzed: 20-Jan-12					
Antimony	**54.9**		mg/kg wet	5.00	54.3		101	9.2-192		
Selenium	**64.8**		mg/kg wet	1.50	65.1		99	80.3-119.7		
Thallium	**155**		mg/kg wet	3.00	136		114	81.2-118.8		
Vanadium	**44.6**		mg/kg wet	1.50	44.1		101	79.4-120.8		
Zinc	**141**		mg/kg wet	1.00	144		98	82.1-117.9		
Iron	**6360**		mg/kg wet	4.00	6300		101	50.7-149.6		
Manganese	**177**		mg/kg wet	1.00	179		99	82.6-117.4		
Chromium	**63.0**		mg/kg wet	1.00	60.0		105	81.7-117.9		
Silver	**21.1**		mg/kg wet	1.50	21.0		101	66.1-133.7		
Aluminum	**3890**		mg/kg wet	5.00	4300		90	40.8-159.7		
Arsenic	**56.9**		mg/kg wet	1.50	55.9		102	82.9-117.4		
Calcium	**3450**		mg/kg wet	25.0	3430		100	83.1-116.9		
Cobalt	**63.4**		mg/kg wet	1.00	65.1		97	82.7-116.5		
Copper	**62.8**		mg/kg wet	1.00	60.0		105	83.8-116.2		
Beryllium	**42.3**		mg/kg wet	0.500	45.2		94	83.8-115.6		
Cadmium	**41.0**		mg/kg wet	0.500	41.1		100	84-116		
Barium	**104**		mg/kg wet	1.00	106		99	83.5-116.5		
Batch 1201420 - EPA200/SW7000 Series										
Blank (1201420-BLK1)					Prepared & Analyzed: 24-Jan-12					
Mercury	< 0.0276		mg/kg wet	0.0276						
Reference (1201420-SRM1)					Prepared & Analyzed: 24-Jan-12					
Mercury	**2.61**		mg/kg wet	0.300	2.24		117	71.8-127.8		

General Chemistry Parameters - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201291 - General Preparation										
Duplicate (1201291-DUP1)			**Source: SB42546-01**			Prepared & Analyzed: 17-Jan-12				
% Solids	**79.8**		%			78.3			2	20

Extractable Petroleum Hydrocarbons - CCV Evaluation Report

Analyte(s)	Average RF	CCRF	% D	Limit
Batch S201004				
Calibration Check (S201004-CCV1)				
C9-C18 Aliphatic Hydrocarbons	2.078454E+08	1.715622E+08	-6.8	25
C19-C36 Aliphatic Hydrocarbons	2.183231E+08	2.133576E+08	11.5	25
C11-C22 Aromatic Hydrocarbons	20.15262	18.13642	2.4	25
Naphthalene	6.099369	6.110563	0.2	25
2-Methylnaphthalene	4.267552	4.134676	-3.1	25
Acenaphthylene	6.09213	6.317379	3.7	25
Acenaphthene	4.005159	4.163755	4.0	25
Fluorene	4.509317	4.686078	3.9	25
Phenanthrene	6.15939	6.62409	7.5	25
Anthracene	6.269953	6.99823	11.6	25
Fluoranthene	6.557219	7.233059	10.3	25
Pyrene	6.869187	7.618598	10.9	25
Benzo (a) anthracene	6.380345	6.599166	3.4	25
Chrysene	6.415828	6.714795	4.7	25
Benzo (b) fluoranthene	6.802826	5.720214	-15.9	25
Benzo (k) fluoranthene	7.102797	6.544426	-7.9	25
Benzo (a) pyrene	6.572576	6.048745	-8.0	25
Indeno (1,2,3-cd) pyrene	7.596038	6.237473	-17.9	25
Dibenzo (a,h) anthracene	6.447403	5.360988	-16.9	25
Benzo (g,h,i) perylene	6.549651	5.491693	-16.2	25
n-Nonane (C9)	192121.7	203168.3	7.6	30
n-Decane	191928.6	204287.6	8.3	25
n-Dodecane	191715.2	204452.2	6.6	25
n-Tetradecane	188577.1	203473	7.9	25
n-Hexadecane	183494.2	199640.3	8.8	25
n-Octadecane	177254.9	192639	8.7	25
n-Nonadecane	173919.5	189915.8	9.2	25
n-Eicosane	168388.3	185363.3	10.1	25
n-Docosane	161705.9	184105	13.9	25
n-Tetracosane	156462.2	183753.6	17.4	25
n-Hexacosane	154857.4	184505.4	19.1	25
n-Octacosane	150049.8	182118.2	21.4	25
n-Triacontane	154838.9	190534.6	23.1	25
n-Hexatriacontane	147651	184407.3	24.9	25
Calibration Check (S201004-CCV2)				
C9-C18 Aliphatic Hydrocarbons	2.078454E+08	1.592746E+08	-13.5	25
C19-C36 Aliphatic Hydrocarbons	2.183231E+08	2.228983E+08	17.4	25
C11-C22 Aromatic Hydrocarbons	20.15262	18.53868	4.7	25
Naphthalene	6.099369	5.965544	-2.2	25
2-Methylnaphthalene	4.267552	4.08365	-4.3	25
Acenaphthylene	6.09213	6.288054	3.2	25
Acenaphthene	4.005159	4.091135	2.1	25
Fluorene	4.509317	4.691382	4.0	25
Phenanthrene	6.15939	6.572738	6.7	25
Anthracene	6.269953	6.976972	11.3	25
Fluoranthene	6.557219	7.413084	13.1	25
Pyrene	6.869187	7.857939	14.4	25
Benzo (a) anthracene	6.380345	7.104998	11.4	25
Chrysene	6.415828	7.10565	10.8	25
Benzo (b) fluoranthene	6.802826	6.20725	-8.8	25
Benzo (k) fluoranthene	7.102797	7.207444	1.5	25

Extractable Petroleum Hydrocarbons - CCV Evaluation Report

Analyte(s)	Average RF	CCRF	% D	Limit
Batch S201004				
Calibration Check (S201004-CCV2)				
Benzo (a) pyrene	6.572576	6.363524	-3.2	25
Indeno (1,2,3-cd) pyrene	7.596038	6.46813	-14.8	25
Dibenzo (a,h) anthracene	6.447403	5.517723	-14.4	25
Benzo (g,h,i) perylene	6.549651	5.646952	-13.8	25
n-Nonane (C9)	192121.7	175056.1	-6.8	30
n-Decane	191928.6	174473.6	-7.0	25
n-Dodecane	191715.2	173437.6	-9.5	25
n-Tetradecane	188577.1	173511.1	-8.0	25
n-Hexadecane	183494.2	174219.5	-5.1	25
n-Octadecane	177254.9	174820.1	-1.4	25
n-Nonadecane	173919.5	172501.8	-0.8	25
n-Eicosane	168388.3	171285.1	1.7	25
n-Docosane	161705.9	176669.2	9.3	25
n-Tetracosane	156462.2	169229.6	8.2	25
n-Hexacosane	154857.4	175069.7	13.1	25
n-Octacosane	150049.8	181197.4	20.8	25
n-Triacontane	154838.9	181722.6	17.4	25
n-Hexatriacontane	147651	180225.2	22.1	25
Batch S201069				
Calibration Check (S201069-CCV1)				
C9-C18 Aliphatic Hydrocarbons	9.118459E+07	7.928223E+07	-1.3	25
C19-C36 Aliphatic Hydrocarbons	1.849312E+08	9.895898E+07	-0.5	25
Naphthalene	8.471081	8.556491	1.0	25
2-Methylnaphthalene	5.879773	6.153105	4.6	25
Acenaphthylene	8.531765	8.80474	3.2	25
Acenaphthene	5.227441	5.302542	1.4	25
Fluorene	6.03715	6.178957	2.3	25
Phenanthrene	8.197534	8.813345	7.5	25
Anthracene	8.249885	8.809542	6.8	25
Fluoranthene	8.061049	9.056823	12.4	25
Pyrene	8.497326	9.335618	9.9	25
Benzo (a) anthracene	7.120424	8.07399	13.4	25
Chrysene	7.569093	8.344477	10.2	25
Benzo (b) fluoranthene	6.368326	6.655357	4.5	25
Benzo (k) fluoranthene	7.018999	7.918505	12.8	25
Benzo (a) pyrene	6.236331	6.851786	9.9	25
Indeno (1,2,3-cd) pyrene	6.523927	6.932332	6.3	25
Dibenzo (a,h) anthracene	5.351167	5.690477	6.3	25
Benzo (g,h,i) perylene	5.398384	5.568779	3.2	25
n-Decane	81115.74	73904.53	-8.9	25
n-Dodecane	81469.5	77225.88	-5.2	25
n-Hexadecane	77352.32	76406.04	-1.2	25
n-Octadecane	73365.4	75447.18	2.8	25
n-Nonane (C9)	80936.92	72793.44	-10.1	30
n-Tetradecane	79773.24	77893.27	-2.4	25
n-Eicosane	69202.73	74121.78	7.1	25
n-Docosane	67259.44	74652.57	11.0	25
n-Nonadecane	71347.9	75164.11	5.3	25
n-Tetracosane	66939.26	76226.87	13.9	25
n-Octacosane	66464.01	78412.84	18.0	25
n-Hexacosane	67304.78	78415.81	16.5	25

Extractable Petroleum Hydrocarbons - CCV Evaluation Report

Analyte(s)	Average RF	CCRF	% D	Limit
Batch S201069				
Calibration Check (S201069-CCV1)				
n-Triacontane	69836.1	83539.3	19.6	25
n-Hexatriacontane	73538.18	87239.66	18.6	25

Analyte(s)	Average RF	CCRF	% D	Limit
Batch S200957				
Calibration Check (S200957-CCV1)				
Benzene	125338.6	114661.6	-8.5	25
Ethylbenzene	69695.54	64285.56	-7.8	25
Methyl tert-butyl ether	67938.23	60667.82	-10.7	25
Naphthalene	64783.47	61184.68	-5.6	25
Toluene	89233.04	83552.56	-6.4	25
m,p-Xylene	77150.11	70992.93	-8.0	25
o-Xylene	64126.76	58774.98	-8.3	25
2-Methylpentane	49629.85	50612.2	2.0	25
n-Nonane	31577.51	33345.88	5.6	30
n-Pentane	45333.86	43645.58	-3.7	25
1,2,4-Trimethylbenzene	65528.51	59047.9	-9.9	25
2,2,4-Trimethylpentane	45933.74	48820.16	6.3	25
n-Butylcyclohexane	31621.02	32921.02	4.1	25
n-Decane	27201.97	30436.9	11.9	25
Calibration Check (S200957-CCV2)				
Benzene	125338.6	120448.6	-3.9	25
Ethylbenzene	69695.54	68442.1	-1.8	25
Methyl tert-butyl ether	67938.23	65947.32	-2.9	25
Naphthalene	64783.47	68443.36	5.6	25
Toluene	89233.04	88298.54	-1.0	25
m,p-Xylene	77150.11	75639.73	-2.0	25
o-Xylene	64126.76	63631.38	-0.8	25
2-Methylpentane	49629.85	46379.9	-6.5	25
n-Nonane	31577.51	32331.48	2.4	30
n-Pentane	45333.86	40720.18	-10.2	25
1,2,4-Trimethylbenzene	65528.51	63147.42	-3.6	25
2,2,4-Trimethylpentane	45933.74	46104.5	0.4	25
n-Butylcyclohexane	31621.02	31486.16	-0.4	25
n-Decane	27201.97	24102.32	-11.4	25

Notes and Definitions

E	The concentration indicated for this analyte is an estimated value. This value is considered an estimate (CLP E-flag).
GS1	Sample dilution required for high concentration of target analytes to be within the instrument calibration range.
QM4X	The spike recovery was outside of QC acceptance limits for the MS, MSD and/or PS due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
QM7	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
QM9	The spike recovery for this QC sample is outside the established control limits. The sample results for the QC batch were accepted based on LCS/LCSD or SRM recoveries within the control limits.
QR2	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
QR5	RPD out of acceptance range.
R01	The Reporting Limit has been raised to account for matrix interference.
VC10	The VOC preserved soil sample is not within the 1:1 weight to volume ratio as recommended by SW846 methods 5030 and 5035 but may be within the 1:1 volume to volume ratio. This variance may affect the final reporting limit.
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference

A Matrix Spike and Matrix Spike Duplicate (MS/MSD) for MADEP EPH CAM may not have been analyzed with the samples in this work order. According to the method these spikes are performed only when requested by the client. If requested the spike recoveries are included in the batch QC data.

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

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

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

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

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

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

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

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

Validated by:
June O'Connor
Kimberly Wisk
Nicole Leja

SB42846 CK

SPECTRUM ANALYTICAL, INC.
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CHAIN OF CUSTODY RECORD

Page 1 of 2

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

Report To: OTO 293 Bridge St Springfield MA

Telephone #: 413-788-6222

Project Mgr. Val Tillinghast

Invoice To: OTO

P.O. No.: _____ RQN: _____

Project No.: 1753-03-01

Site Name: Lunt

Location: _____ State: MA

Sampler(s): Brin Waverka

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

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

G=Grab C=Composite

List preservative code below:

QA/QC Reporting Notes:
(check as needed)

Containers:

Analyses:

Lab Id:	Sample Id:	Date:	Time:	Type	Matrix	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	EPH iced	VPH 7	VOC-8260 7 4x	PCBs (soil only) iced	metals TAL 23 iced
SB42846 01	LS-6 4-6'	1/11/12	1045		S		1			X				
02	LS-7 2-4'	1/11/12	1110				1			X				
03	LS-8 4-6'	1/11/12	1145				1			X				
04	LS-9 5-6'	1/11/12	1230			1	1			X	X			
05	LS-11 4-6'	1/11/12	1255				1			X				
06	LS-14 0-2'	1/11/12	1415				1						X	X
07	LS-14 6-8'	1/11/12	1430			3	1			X	X	X		
08	LS-15 0-2'	1/11/12	1445				1						X	X
09	LS-15 4-6'	1/11/12	1455				1			X				
10	LS-17 6-8'	1/11/12	1528		↓	3	1			X	X	X		

Relinquished by:	Received by:	Date:	Time:	Temp°C
Valerie Tillinghast	Tim Upton	1-16-12	825	
Tim Upton	Amy K	1-16-12	14:50	.8

☐ EDD Format _____

☐ E-mail to _____

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

☒ Provide MA DEP MCP CAM Report
☐ Provide CT DPH RCP Report

QA/QC Reporting Level
☒ Standard ☐ No QC
☐ Other _____

State specific reporting standards: _____

S34516 CC

SPECTRUM ANALYTICAL, INC.
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CHAIN OF CUSTODY RECORD

Page 2 of 2

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

Report To: OTO
293 Bridge St
Springfield

Telephone #: 413 788-6222
Project Mgr. Val Tillinghast

Invoice To: OTO

P.O. No.: _____ RQN: _____

Project No.: 1753-03-01
Site Name: Lunt
Location: _____ State: MA
Sampler(s): Brin Waranda

1=Na_2S2O_3 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid 7=CH_3OH
8= $NaHSO_4$ 9= _____ 10= _____ 11= _____

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

G=Grab C=Composite

Lab Id:	Sample Id:	Date:	Time:	Type	Matrix	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	List preservative code below:									Analyses:								
										iced	7	7	4	iced					EPH	VPH	VOCs/8260	PCBs (NOT GOOD)	Metals-TAL 23			
S34254611	LS-19 7-9'	1/12/12	1300		S	3	1												X	X	X						
L 12	LS-20 1-3'	↓	1325		S	2	1														X		X				

QA/QC Reporting Notes:
(check as needed)

- [x] Provide MA DEP MCP CAM Report
- [ ] Provide CT DPH RCP Report

QA/QC Reporting Level
- [x] Standard
- [ ] No QC
- [ ] Other _____

State specific reporting standards:
_____

Relinquished by:	Received by:	Date:	Time:	Temp°C
Valerie Kelley-Gast	Tanya K	1-16-12	825	
Tanya K		1-16-12	14:50	8

- [ ] EDD Format _____
- [ ] E-mail to _____

- [ ] Ambient [ ] Iced [x] Refrigerated [ ] Fridge temp ___ °C [ ] Freezer temp ___ °C

Report Date:
26-Jan-12 11:13

☑ Final Report
☐ Re-Issued Report
☐ Revised Report

SPECTRUM ANALYTICAL, INC.
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HANIBAL TECHNOLOGY

Laboratory Report

O'Reilly, Talbot & Okun
293 Bridge Street; Suite 500
Springfield, MA 01103
Attn: Val Tillinghast

Project: Lunt - MA
Project #: 1753-03-01

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
SB42644-01	LS-1 0-2'	Soil	11-Jan-12 08:30	18-Jan-12 14:40
SB42644-02	LS-1 2-4'	Soil	11-Jan-12 08:33	18-Jan-12 14:40
SB42644-03	LS-5 0-2'	Soil	11-Jan-12 10:15	18-Jan-12 14:40
SB42644-04	LS-5 2-4'	Soil	11-Jan-12 10:20	18-Jan-12 14:40

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

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

Authorized by:

Nicole Leja
Laboratory Director

Spectrum Analytical holds certification in the State of Massachusetts for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of Massachusetts does not offer certification for all analytes.
Please note that this report contains 9 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Spectrum Analytical, Inc.

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

MassDEP Analytical Protocol Certification Form

Laboratory Name: Spectrum Analytical, Inc.	**Project #:** 1753-03-01
Project Location: Lunt - MA	**RTN:**
This form provides certifications for the following data set:	SB42644-01 through SB42644-04
Matrices: Soil	

CAM Protocol

8260 VOC CAM II A	✓ 7470/7471 Hg CAM III B	MassDEP VPH CAM IV A	8081 Pesticides CAM V B	7196 Hex Cr CAM VI B	MassDEP APH CAM IX A
8270 SVOC CAM II B	7010 Metals CAM III C	MassDEP EPH CAM IV B	8151 Herbicides CAM V C	8330 Explosives CAM VIII A	TO-15 VOC CAM IX B
✓ 6010 Metals CAM III A	6020 Metals CAM III D	8082 PCB CAM V A	9012 Total Cyanide/PAC CAM VI A	9014 Total Cyanide/PAC CAM VI A	6860 Perchlorate CAM VIII B

Affirmative responses to questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain of Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	✓ Yes No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	✓ Yes No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	✓ Yes No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	✓ Yes No
E	a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes No Yes No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to questions A through E)?	✓ Yes No

Responses to questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	Yes ✓ No

***Data User Note:* Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.**

H	Were all QC performance standards specified in the CAM protocol(s) achieved?	✓ Yes No
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	Yes ✓ No

All negative responses are addressed in a case narrative on the cover page of this report.

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

Nicole Leja
Laboratory Director
Date: 1/26/2012

CASE NARRATIVE:

The samples were received 2.4 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/- 2.0 degrees Celsius was used immediately upon receipt of the samples.

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

MADEP has published a list of analytical methods (CAM) which provides a series of recommended protocols for the acquisition, analysis and reporting of analytical data in support of MCP decisions. "Presumptive Certainty" can be established only for those methods published by the MADEP in the MCP CAM. The compounds and/or elements reported were specifically requested by the client on the Chain of Custody and in some cases may not include the full analyte list as defined in the method. Regulatory limits may not be achieved if specific method and/or technique was not requested on the Chain of Custody.

According to WSC-CAM 5/2009 Rev.1, Table 11 A-1, recovery for some VOC analytes have been deemed potentially difficult. Although they may still be within the recommended recovery range, a range has been set based on historical control limits.

Some target analytes which are not listed as exceptions in the Summary of CAM Reporting Limits may exceed the recommended RL based on sample initial volume or weight provided, % moisture content, or responsiveness of a particular analyte to purge and trap instrumentation.

There is no relevant protocol-specific QC and/or performance standards non-conformances to report.

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-1 0-2' SB42644-01	1753-03-01	Soil	11-Jan-12 08:30	18-Jan-12

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Total Metals by EPA 6000/7000 Series Methods													
7440-22-4	Silver	**3.57**		mg/kg dry	1.62	0.249	1	SW846 6010C	23-Jan-12	25-Jan-12	ARF	1201544	
7440-38-2	Arsenic	**2.93**		mg/kg dry	1.62	0.259	1	"	"	"	"	"	
7440-39-3	Barium	**61.5**		mg/kg dry	1.08	0.260	1	"	"	"	"	"	
7440-43-9	Cadmium	**2.38**		mg/kg dry	0.538	0.0594	1	"	"	"	"	"	
7440-47-3	Chromium	**9.37**		mg/kg dry	1.08	0.392	1	"	"	"	"	"	
7439-97-6	Mercury	**0.0440**		mg/kg dry	0.0373	0.0076	1	SW846 7471B	"	25-Jan-12	RH	1201545	
7439-92-1	Lead	**23.1**		mg/kg dry	1.62	0.192	1	SW846 6010C	"	25-Jan-12	ARF	1201544	
7782-49-2	Selenium	< 1.62		mg/kg dry	1.62	0.239	1	"	"	"	"	"	
General Chemistry Parameters													
	% Solids	**78.2**		%			1	SM2540 G Mod.	20-Jan-12	20-Jan-12	DT	1201631	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-1 2-4' SB42644-02	1753-03-01	Soil	11-Jan-12 08:33	18-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Total Metals by EPA 6000/7000 Series Methods													
7440-22-4	Silver	< 1.62		mg/kg dry	1.62	0.249	1	SW846 6010C	23-Jan-12	25-Jan-12	ARF	1201544	
7440-38-2	Arsenic	< 1.62		mg/kg dry	1.62	0.260	1	"	"	"	"	"	
7440-39-3	Barium	**15.2**		mg/kg dry	1.08	0.260	1	"	"	"	"	"	
7440-43-9	Cadmium	< 0.539		mg/kg dry	0.539	0.0595	1	"	"	"	"	"	
7440-47-3	Chromium	**11.2**		mg/kg dry	1.08	0.393	1	"	"	"	"	"	
7439-97-6	Mercury	< 0.0345		mg/kg dry	0.0345	0.0071	1	SW846 7471B	"	25-Jan-12	RH	1201545	
7439-92-1	Lead	**4.07**		mg/kg dry	1.62	0.192	1	SW846 6010C	"	25-Jan-12	ARF	1201544	
7782-49-2	Selenium	< 1.62		mg/kg dry	1.62	0.239	1	"	"	"	"	"	
General Chemistry Parameters													
	% Solids	**83.9**		%			1	SM2540 G Mod.	20-Jan-12	20-Jan-12	DT	1201631	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-5 0-2' SB42644-03	1753-03-01	Soil	11-Jan-12 10:15	18-Jan-12

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Total Metals by EPA 6000/7000 Series Methods													
7440-22-4	Silver	**2.20**		mg/kg dry	1.52	0.235	1	SW846 6010C	23-Jan-12	25-Jan-12	ARF	1201544	
7440-38-2	Arsenic	**2.77**		mg/kg dry	1.52	0.245	1	"	"	"	"	"	
7440-39-3	Barium	**36.4**		mg/kg dry	1.02	0.245	1	"	"	"	"	"	
7440-43-9	Cadmium	**0.741**		mg/kg dry	0.508	0.0560	1	"	"	"	"	"	
7440-47-3	Chromium	**13.1**		mg/kg dry	1.02	0.370	1	"	"	"	"	"	
7439-97-6	Mercury	**0.0876**		mg/kg dry	0.0329	0.0067	1	SW846 7471B	"	25-Jan-12	RH	1201545	
7439-92-1	Lead	**45.6**		mg/kg dry	1.52	0.181	1	SW846 6010C	"	25-Jan-12	ARF	1201544	
7782-49-2	Selenium	< 1.52		mg/kg dry	1.52	0.225	1	"	"	"	"	"	
General Chemistry Parameters													
	% Solids	**86.4**		%			1	SM2540 G Mod.	20-Jan-12	20-Jan-12	DT	1201631	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-5 2-4' SB42644-04	1753-03-01	Soil	11-Jan-12 10:20	18-Jan-12

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Total Metals by EPA 6000/7000 Series Methods													
7440-22-4	Silver	< 1.82		mg/kg dry	1.82	0.280	1	SW846 6010C	23-Jan-12	25-Jan-12	ARF	1201544	
7440-38-2	Arsenic	< 1.82		mg/kg dry	1.82	0.293	1	"	"	"	"	"	
7440-39-3	Barium	**23.8**		mg/kg dry	1.21	0.293	1	"	"	"	"	"	
7440-43-9	Cadmium	**0.613**		mg/kg dry	0.607	0.0670	1	"	"	"	"	"	
7440-47-3	Chromium	**16.7**		mg/kg dry	1.21	0.442	1	"	"	"	"	"	
7439-97-6	Mercury	< 0.0328		mg/kg dry	0.0328	0.0067	1	SW846 7471B	"	25-Jan-12	RH	1201545	
7439-92-1	Lead	**6.97**		mg/kg dry	1.82	0.216	1	SW846 6010C	"	25-Jan-12	ARF	1201544	
7782-49-2	Selenium	< 1.82		mg/kg dry	1.82	0.269	1	"	"	"	"	"	
General Chemistry Parameters													
	% Solids	**80.0**		%			1	SM2540 G Mod.	20-Jan-12	20-Jan-12	DT	1201631	

Total Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201544 - SW846 3050B										
Blank (1201544-BLK1)						Prepared: 23-Jan-12 Analyzed: 24-Jan-12				
Lead	< 1.39		mg/kg wet	1.39						
Selenium	< 1.39		mg/kg wet	1.39						
Arsenic	< 1.39		mg/kg wet	1.39						
Cadmium	< 0.462		mg/kg wet	0.462						
Chromium	< 0.924		mg/kg wet	0.924						
Silver	< 1.39		mg/kg wet	1.39						
Barium	< 0.924		mg/kg wet	0.924						
Reference (1201544-SRM1)						Prepared: 23-Jan-12 Analyzed: 25-Jan-12				
Lead	**37.6**		mg/kg wet	1.50	39.5		95	83.6-116.5		
Selenium	**60.2**		mg/kg wet	1.50	65.8		92	80.3-119.7		
Silver	**21.3**		mg/kg wet	1.50	21.2		100	66.1-133.7		
Arsenic	**55.0**		mg/kg wet	1.50	56.5		97	82.9-117.4		
Chromium	**61.6**		mg/kg wet	1.00	60.6		102	81.7-117.9		
Cadmium	**38.4**		mg/kg wet	0.500	41.5		93	84-116		
Barium	**104**		mg/kg wet	1.00	107		97	83.5-116.5		
Reference (1201544-SRM2)						Prepared: 23-Jan-12 Analyzed: 25-Jan-12				
Lead	**37.6**		mg/kg wet	1.50	39.5		95	83.6-116.5		
Selenium	**61.2**		mg/kg wet	1.50	65.9		93	80.3-119.7		
Silver	**20.9**		mg/kg wet	1.50	21.3		98	66.1-133.7		
Arsenic	**54.6**		mg/kg wet	1.50	56.5		97	82.9-117.4		
Cadmium	**37.4**		mg/kg wet	0.500	41.6		90	84-116		
Chromium	**59.9**		mg/kg wet	1.00	60.7		99	81.7-117.9		
Barium	**102**		mg/kg wet	1.00	107		96	83.5-116.5		
Batch 1201545 - EPA200/SW7000 Series										
Blank (1201545-BLK1)						Prepared: 23-Jan-12 Analyzed: 25-Jan-12				
Mercury	< 0.0282		mg/kg wet	0.0282						
Reference (1201545-SRM1)						Prepared: 23-Jan-12 Analyzed: 25-Jan-12				
Mercury	**2.71**		mg/kg wet	0.300	2.26		120	71.8-127.8		

Notes and Definitions

dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference

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

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

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

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

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

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

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

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

Validated by:
June O'Connor
Kimberly Wisk

SB12644 CLC

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

CHAIN OF CUSTODY RECORD

Page 1 of 1

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

Report To: OTO
293 Bridge St
Springfield MA

Telephone #: 413-788-6222
Project Mgr. Val Fillinghast

Invoice To: OTO

P.O. No.: _____ RQN: _____

Project No.: 1753-03-01
Site Name: Lint
Location: _____ State: MA
Sampler(s): Brian Warenda

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

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

G=Grab C=Composite

List preservative code below:

QA/QC Reporting Notes:
* additional charges may apply

MA DEP MCP CAM Report: Yes [x] No [ ]
CT DPH RCP Report: Yes [ ] No [x]

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

State-specific reporting standards:

Lab Id:	Sample Id:	Date:	Time:	Type	Matrix	Containers: # of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Analyses: RCRA 8 metals
SB12644 01	LS-1 0-2'	1/11/2012	0830	G	SO			1		X
02	LS-1 2-4'	"	0833	G	SO			1		X
03	LS-5 0-2'	"	1015	G	SO			1		X
04	LS-5 2-4'	"	1020	G	SO			1		X

Relinquished by:	Received by:	Date:	Time:	Temp°C
Val Fillinghast		1-18-12	1236	
		1/18/12	1440	2.4

[ ] EDD Format pdf
[ ] E-mail to Fillinghast@oto-env.com

[ ] Ambient [ ] Iced [ ] Refrigerated [ ] Fridge temp ___ °C [ ] Freezer temp ___ °C

Report Date:
31-Jan-12 15:34

☑ Final Report
☐ Re-Issued Report
☐ Revised Report

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

Laboratory Report

O'Reilly, Talbot & Okun
293 Bridge Street; Suite 500
Springfield, MA 01103
Attn: Val Tillinghast

Project: Lunt Silversmith-Greenfield, MA
Project #: 1753-03-01

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
SB42698-01	LS-10	Ground Water	19-Jan-12 12:03	19-Jan-12 18:00
SB42698-02	LS-19	Ground Water	19-Jan-12 15:16	19-Jan-12 18:00
SB42698-03	LS-20	Ground Water	19-Jan-12 14:10	19-Jan-12 18:00
SB42698-04	MW-7	Ground Water	19-Jan-12 13:02	19-Jan-12 18:00
SB42698-05	MW-6	Ground Water	19-Jan-12 13:40	19-Jan-12 18:00

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

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

Authorized by:

Nicole Leja
Laboratory Director

Spectrum Analytical holds certification in the State of Massachusetts for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of Massachusetts does not offer certification for all analytes.
Please note that this report contains 48 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Spectrum Analytical, Inc.

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

The following outlines the condition of all VPH samples contained within this report upon laboratory receipt.

Matrices	Ground Water		
Containers	✓ Satisfactory		
Sample Preservative	**Aqueous** (acid preserved)	N/A ✓ pH≤2 pH>2	
	Soil or Sediment	✓ N/A Samples not received in Methanol	ml Methanol/g soil 1:1 +/-25% Other
		Samples received in Methanol: covering soil/sediment not covering soil/sediment	
		Samples received in air-tight container	
Temperature	✓ Received on ice ✓ Received at 4 ± 2 ºC		

Were all QA/QC procedures followed as required by the VPH method? *Yes*
Were any significant modifications made to the VPH method as specified in section 11.3? *No*
Were all performance/acceptance standards for required QA/QC procedures achieved? *Yes*

The following outlines the condition of all EPH samples contained within this report upon laboratory receipt.

Matrices	Ground Water
Containers	✓ Satisfactory
Aqueous Preservative	N/A ✓ pH≤2 pH>2 pH adjusted to <2 in lab
Temperature	✓ Received on ice ✓ Received at 4 ± 2 ºC

Were all QA/QC procedures followed as required by the EPH method? *Yes*
Were any significant modifications made to the EPH method as specified in Section 11.3? *No*
Were all performance/acceptance standards for required QA/QC procedures achieved? *Yes*

I attest that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Authorized by:

Nicole Leja
Laboratory Director

MassDEP Analytical Protocol Certification Form

Laboratory Name: Spectrum Analytical, Inc.	**Project #:** 1753-03-01
Project Location: Lunt Silversmith-Greenfield, MA	**RTN:**
This form provides certifications for the following data set:	SB42698-01 through SB42698-05
Matrices: Ground Water	

CAM Protocol

✓ 8260 VOC CAM II A	✓ 7470/7471 Hg CAM III B	✓ MassDEP VPH CAM IV A	8081 Pesticides CAM V B	7196 Hex Cr CAM VI B	MassDEP APH CAM IX A
8270 SVOC CAM II B	7010 Metals CAM III C	✓ MassDEP EPH CAM IV B	8151 Herbicides CAM V C	8330 Explosives CAM VIII A	TO-15 VOC CAM IX B
✓ 6010 Metals CAM III A	6020 Metals CAM III D	8082 PCB CAM V A	✓ 9012 Total Cyanide/PAC CAM VI A	9014 Total Cyanide/PAC CAM VI A	6860 Perchlorate CAM VIII B

Affirmative responses to questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain of Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	✓ Yes No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	✓ Yes No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	✓ Yes No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	✓ Yes No
E	a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	✓ Yes No Yes No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to questions A through E)?	✓ Yes No

Responses to questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	Yes ✓ No

<u>Data User Note:</u> Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.

H	Were all QC performance standards specified in the CAM protocol(s) achieved?	Yes ✓ No
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	Yes ✓ No

All negative responses are addressed in a case narrative on the cover page of this report.

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

Nicole Leja
Laboratory Director
Date: 1/31/2012

CASE NARRATIVE:

The samples were received 5.0 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/- 2.0 degrees Celsius was used immediately upon receipt of the samples.

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

MADEP has published a list of analytical methods (CAM) which provides a series of recommended protocols for the acquisition, analysis and reporting of analytical data in support of MCP decisions. "Presumptive Certainty" can be established only for those methods published by the MADEP in the MCP CAM. The compounds and/or elements reported were specifically requested by the client on the Chain of Custody and in some cases may not include the full analyte list as defined in the method. Regulatory limits may not be achieved if specific method and/or technique was not requested on the Chain of Custody.

According to WSC-CAM 5/2009 Rev.1, Table 11 A-1, recovery for some VOC analytes have been deemed potentially difficult. Although they may still be within the recommended recovery range, a range has been set based on historical control limits.

Some target analytes which are not listed as exceptions in the Summary of CAM Reporting Limits may exceed the recommended RL based on sample initial volume or weight provided, % moisture content, or responsiveness of a particular analyte to purge and trap instrumentation.

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

MADEP VPH 5/2004 Rev. 1.1

Calibration:

S110838-ICV1

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

n-Pentane (74%)

This affected the following samples:

1202338-BLK1
1202338-BS1
1202338-BSD1
S201217-CCV1

SW846 6010C

Duplicates:

1201966-DUP1 *Source: SB42698-03*

Analyses are not controlled on RPD values from sample concentrations that are less than 5 times the reporting level. The batch is accepted based upon the difference between the sample and duplicate is less than or equal to the reporting limit.

Cadmium

SW846 8260C

Calibration:

1112046

Analyte quantified by quadratic equation type calibration.

Methyl tert-butyl ether
trans-1,4-Dichloro-2-butene
Vinyl chloride

SW846 8260C

Calibration:

1112046

This affected the following samples:

1201858-BLK1
1201858-BS1
1201858-BSD1
1201858-MS1
1201858-MSD1
1201950-BLK1
1201950-BS1
1201950-BSD1
LS-10
LS-19
LS-20
MW-6
MW-7
S112414-ICV1
S200976-CCV1
S201018-CCV1

Laboratory Control Samples:

1201858 BS/BSD

1,2,3-Trichlorobenzene percent recoveries (131/119) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

LS-10
MW-6
MW-7

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

LS-10
MW-6
MW-7

Hexachlorobutadiene percent recoveries (135/125) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

LS-10
MW-6
MW-7

1201950 BS/BSD

1,2,3-Trichlorobenzene percent recoveries (135/123) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

LS-19
LS-20

Bromoform percent recoveries (136/134) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

LS-19
LS-20

SW846 8260C

Laboratory Control Samples:

1201950 BS/BSD

Carbon tetrachloride percent recoveries (137/120) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

LS-19
LS-20

Hexachlorobutadiene percent recoveries (148/131) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

LS-19
LS-20

Spikes:

1201858-MS1 *Source: SB42698-01*

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

Dichlorodifluoromethane (Freon12)

Samples:

S200976-CCV1

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

1,1,1,2-Tetrachloroethane (28.9%)
1,2,3-Trichlorobenzene (30.9%)
1,3,5-Trichlorobenzene (21.2%)
Bromobenzene (24.5%)
Bromomethane (23.6%)
Dibromochloromethane (25.3%)
Tetrachloroethene (23.7%)
trans-1,3-Dichloropropene (24.3%)

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

Bromoform (35.2%)
Carbon tetrachloride (23.1%)
Hexachlorobutadiene (34.8%)
trans-1,4-Dichloro-2-butene (26.8%)

This affected the following samples:

1201858-BLK1
1201858-BS1
1201858-BSD1
1201858-MS1
1201858-MSD1
LS-10
MW-6
MW-7

S201018-CCV1

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

1,1,1,2-Tetrachloroethane (23.8%)
1,2,3-Trichlorobenzene (22.9%)
Acetone (-21.3%)
Dibromochloromethane (21.4%)

SW846 8260C

Samples:

S201018-CCV1

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

Bromoform (34.0%)
Hexachlorobutadiene (31.2%)

This affected the following samples:

1201950-BLK1
1201950-BS1
1201950-BSD1
LS-19
LS-20

SB42698-02 *LS-19*

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

SB42698-03 *LS-20*

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

SB42698-04 *MW-7*

Insufficient preservative to reduce the sample pH to less than 2.

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-10	1753-03-01	Ground Water	19-Jan-12 12:03	19-Jan-12
SB42698-01				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.6	1	SW846 8260C	24-Jan-12	24-Jan-12	eq	1201858	
67-64-1	Acetone	< 10.0		µg/l	10.0	2.6	1	"	"	"	"	"	
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	
71-43-2	Benzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
74-83-9	Bromomethane	< 2.0		µg/l	2.0	1.1	1	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	1.7	1	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-00-3	Chloroethane	< 2.0		µg/l	2.0	1.0	1	"	"	"	"	"	
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
74-87-3	Chloromethane	< 2.0		µg/l	2.0	1.5	1	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	0.5	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-10	1753-03-01	Ground Water	19-Jan-12 12:03	19-Jan-12
SB42698-01				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds Prepared by method SW846 5030 Water MS													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.6	1	SW846 8260C	24-Jan-12	24-Jan-12	eq	1201858	
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.9	1	"	"	"	"	"	
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.7	1	"	"	"	"	"	
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
100-42-5	Styrene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	
127-18-4	Tetrachloroethene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
108-88-3	Toluene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
79-01-6	Trichloroethene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	1.6	1	"	"	"	"	"	
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.9	1	"	"	"	"	"	
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	1.4	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	8.6	1	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	14.0	1	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	0.8	1	"	"	"	"	"	
64-17-5	Ethanol	< 400		µg/l	400	35.7	1	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*93*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*101*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*106*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*102*			*70-130 %*			"	"	"	"	"	
VPH Aliphatic/Aromatic Carbon Ranges Prepared by method VPH - EPA 5030B													

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-10	1753-03-01	Ground Water	19-Jan-12 12:03	19-Jan-12
SB42698-01				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
VPH Aliphatic/Aromatic Carbon Ranges Prepared by method VPH - EPA 5030B													
	C5-C8 Aliphatic Hydrocarbons	< 75.0		µg/l	75.0	5.55	5	MADEP VPH 5/2004 Rev. 1.1	31-Jan-12	31-Jan-12	mp	1202338	
	C9-C12 Aliphatic Hydrocarbons	< 25.0		µg/l	25.0	4.22	5	"	"	"	"	"	
	C9-C10 Aromatic Hydrocarbons	< 25.0		µg/l	25.0	1.12	5	"	"	"	"	"	
	Unadjusted C5-C8 Aliphatic Hydrocarbons	< 75.0		µg/l	75.0	7.10	5	"	"	"	"	"	
	Unadjusted C9-C12 Aliphatic Hydrocarbons	< 25.0		µg/l	25.0	4.68	5	"	"	"	"	"	
VPH Target Analytes Prepared by method VPH - EPA 5030B													
71-43-2	Benzene	< 5.0		µg/l	5.0	1.3	5	"	"	"	"	"	
100-41-4	Ethylbenzene	< 5.0		µg/l	5.0	1.4	5	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 5.0		µg/l	5.0	1.6	5	"	"	"	"	"	
91-20-3	Naphthalene	< 5.0		µg/l	5.0	1.2	5	"	"	"	"	"	
108-88-3	Toluene	< 5.0		µg/l	5.0	1.3	5	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 10.0		µg/l	10.0	2.8	5	"	"	"	"	"	
95-47-6	o-Xylene	< 5.0		µg/l	5.0	1.1	5	"	"	"	"	"	
Surrogate recoveries:													
615-59-8	*2,5-Dibromotoluene (FID)*	*85*			*70-130 %*			"	"	"	"	"	
615-59-8	*2,5-Dibromotoluene (PID)*	*77*			*70-130 %*			"	"	"	"	"	
Extractable Petroleum Hydrocarbons													
EPH Aliphatic/Aromatic Ranges Prepared by method SW846 3510C													
	C9-C18 Aliphatic Hydrocarbons	< 106		µg/l	106	26.4	1	MADEP EPH 5/2004 R	20-Jan-12	27-Jan-12	MP	1201600	
	C19-C36 Aliphatic Hydrocarbons	< 106		µg/l	106	83.2	1	"	"	"	"	"	
	C11-C22 Aromatic Hydrocarbons	< 106		µg/l	106	58.0	1	"	"	"	"	"	
	Unadjusted C11-C22 Aromatic Hydrocarbons	< 106		µg/l	106	58.0	1	"	"	"	"	"	
	Total Petroleum Hydrocarbons	< 106		µg/l	106	58.0	1	"	"	"	"	"	
	Unadjusted Total Petroleum Hydrocarbons	< 106		µg/l	106	58.0	1	"	"	"	"	"	
EPH Target PAH Analytes Prepared by method SW846 3510C													
91-20-3	Naphthalene	< 5.32		µg/l	5.32	2.79	1	"	"	"	"	"	
91-57-6	2-Methylnaphthalene	< 5.32		µg/l	5.32	2.68	1	"	"	"	"	"	
208-96-8	Acenaphthylene	< 5.32		µg/l	5.32	3.10	1	"	"	"	"	"	
83-32-9	Acenaphthene	< 5.32		µg/l	5.32	3.14	1	"	"	"	"	"	
86-73-7	Fluorene	< 5.32		µg/l	5.32	3.17	1	"	"	"	"	"	
85-01-8	Phenanthrene	< 5.32		µg/l	5.32	3.61	1	"	"	"	"	"	
120-12-7	Anthracene	< 5.32		µg/l	5.32	3.87	1	"	"	"	"	"	
206-44-0	Fluoranthene	< 5.32		µg/l	5.32	3.64	1	"	"	"	"	"	
129-00-0	Pyrene	< 5.32		µg/l	5.32	3.59	1	"	"	"	"	"	
56-55-3	Benzo (a) anthracene	< 5.32		µg/l	5.32	5.00	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-10	1753-03-01	Ground Water	19-Jan-12 12:03	19-Jan-12
SB42698-01				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Extractable Petroleum Hydrocarbons													
EPH Target PAH Analytes Prepared by method SW846 3510C													
218-01-9	Chrysene	< 5.32		µg/l	5.32	3.65	1	MADEP EPH 5/2004 R	20-Jan-12	27-Jan-12	MP	1201600	
205-99-2	Benzo (b) fluoranthene	< 5.32		µg/l	5.32	3.62	1	"	"	"	"	"	
207-08-9	Benzo (k) fluoranthene	< 5.32		µg/l	5.32	3.78	1	"	"	"	"	"	
50-32-8	Benzo (a) pyrene	< 5.32		µg/l	5.32	3.80	1	"	"	"	"	"	
193-39-5	Indeno (1,2,3-cd) pyrene	< 5.32		µg/l	5.32	5.06	1	"	"	"	"	"	
53-70-3	Dibenzo (a,h) anthracene	< 5.32		µg/l	5.32	4.60	1	"	"	"	"	"	
191-24-2	Benzo (g,h,i) perylene	< 5.32		µg/l	5.32	3.61	1	"	"	"	"	"	
Surrogate recoveries:													
3386-33-2	*1-Chlorooctadecane*	*49*			*40-140 %*			"	"	"	"	"	
84-15-1	*Ortho-Terphenyl*	*60*			*40-140 %*			"	"	"	"	"	
321-60-8	*2-Fluorobiphenyl*	*46*			*40-140 %*			"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-19	1753-03-01	Ground Water	19-Jan-12 15:16	19-Jan-12
SB42698-02				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds			GS1										
Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 2000		µg/l	2000	1290	2000	SW846 8260C	25-Jan-12	25-Jan-12	eq	1201950	
67-64-1	Acetone	< 20000		µg/l	20000	5110	2000	"	"	"	"	"	
107-13-1	Acrylonitrile	< 1000		µg/l	1000	922	2000	"	"	"	"	"	
71-43-2	Benzene	< 2000		µg/l	2000	1340	2000	"	"	"	"	"	
108-86-1	Bromobenzene	< 2000		µg/l	2000	1440	2000	"	"	"	"	"	
74-97-5	Bromochloromethane	< 2000		µg/l	2000	1420	2000	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 1000		µg/l	1000	958	2000	"	"	"	"	"	
75-25-2	Bromoform	< 2000		µg/l	2000	1210	2000	"	"	"	"	"	
74-83-9	Bromomethane	< 4000		µg/l	4000	2280	2000	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	< 20000		µg/l	20000	3470	2000	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 2000		µg/l	2000	1120	2000	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 2000		µg/l	2000	1640	2000	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 2000		µg/l	2000	1490	2000	"	"	"	"	"	
75-15-0	Carbon disulfide	< 4000		µg/l	4000	1250	2000	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 2000		µg/l	2000	1100	2000	"	"	"	"	"	
108-90-7	Chlorobenzene	< 2000		µg/l	2000	1310	2000	"	"	"	"	"	
75-00-3	Chloroethane	< 4000		µg/l	4000	2070	2000	"	"	"	"	"	
67-66-3	Chloroform	< 2000		µg/l	2000	1380	2000	"	"	"	"	"	
74-87-3	Chloromethane	< 4000		µg/l	4000	2950	2000	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 2000		µg/l	2000	1580	2000	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 2000		µg/l	2000	1460	2000	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	< 4000		µg/l	4000	1850	2000	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 1000		µg/l	1000	578	2000	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 1000		µg/l	1000	654	2000	"	"	"	"	"	
74-95-3	Dibromomethane	< 2000		µg/l	2000	1330	2000	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 2000		µg/l	2000	1340	2000	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 2000		µg/l	2000	1420	2000	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 2000		µg/l	2000	1250	2000	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 4000		µg/l	4000	894	2000	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 2000		µg/l	2000	1360	2000	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 2000		µg/l	2000	1560	2000	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 2000		µg/l	2000	976	2000	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	**6,340**		µg/l	2000	1430	2000	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 2000		µg/l	2000	1360	2000	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 2000		µg/l	2000	1420	2000	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 2000		µg/l	2000	1610	2000	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 2000		µg/l	2000	1210	2000	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 2000		µg/l	2000	1270	2000	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 1000		µg/l	1000	504	2000	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 1000		µg/l	1000	998	2000	"	"	"	"	"	
100-41-4	Ethylbenzene	< 2000		µg/l	2000	1460	2000	"	"	"	"	"	
87-68-3	Hexachlorobutadiene	< 1000		µg/l	1000	900	2000	"	"	"	"	"	
591-78-6	2-Hexanone (MBK)	< 20000		µg/l	20000	1090	2000	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-19	1753-03-01	Ground Water	19-Jan-12 15:16	19-Jan-12
SB42698-02				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds Prepared by method SW846 5030 Water MS			GS1										
98-82-8	Isopropylbenzene	< 2000		µg/l	2000	1240	2000	SW846 8260C	25-Jan-12	25-Jan-12	eq	1201950	
99-87-6	4-Isopropyltoluene	< 2000		µg/l	2000	1220	2000	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 2000		µg/l	2000	1300	2000	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 20000		µg/l	20000	1860	2000	"	"	"	"	"	
75-09-2	Methylene chloride	< 4000		µg/l	4000	1380	2000	"	"	"	"	"	
91-20-3	Naphthalene	< 2000		µg/l	2000	662	2000	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 2000		µg/l	2000	1520	2000	"	"	"	"	"	
100-42-5	Styrene	< 2000		µg/l	2000	1230	2000	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 2000		µg/l	2000	1250	2000	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 1000		µg/l	1000	698	2000	"	"	"	"	"	
127-18-4	Tetrachloroethene	**6,400**		µg/l	2000	1490	2000	"	"	"	"	"	
108-88-3	Toluene	< 2000		µg/l	2000	1620	2000	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 2000		µg/l	2000	752	2000	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 2000		µg/l	2000	720	2000	"	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 2000		µg/l	2000	1570	2000	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 2000		µg/l	2000	1160	2000	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 2000		µg/l	2000	1280	2000	"	"	"	"	"	
79-01-6	Trichloroethene	**107,000**		µg/l	2000	1510	2000	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 2000		µg/l	2000	1260	2000	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 2000		µg/l	2000	1470	2000	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 2000		µg/l	2000	1510	2000	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 2000		µg/l	2000	1490	2000	"	"	"	"	"	
75-01-4	Vinyl chloride	< 2000		µg/l	2000	1610	2000	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 4000		µg/l	4000	3280	2000	"	"	"	"	"	
95-47-6	o-Xylene	< 2000		µg/l	2000	1760	2000	"	"	"	"	"	
109-99-9	Tetrahydrofuran	< 4000		µg/l	4000	2880	2000	"	"	"	"	"	
60-29-7	Ethyl ether	< 2000		µg/l	2000	1390	2000	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	< 2000		µg/l	2000	1440	2000	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 2000		µg/l	2000	1560	2000	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 2000		µg/l	2000	1450	2000	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 20000		µg/l	20000	17300	2000	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 40000		µg/l	40000	28000	2000	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-buten e	< 10000		µg/l	10000	1530	2000	"	"	"	"	"	
64-17-5	Ethanol	< 800000		µg/l	800000	71400	2000	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*92*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*101*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*107*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*104*			*70-130 %*			"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-20	1753-03-01	Ground Water	19-Jan-12 14:10	19-Jan-12
SB42698-03				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds Prepared by method SW846 5030 Water MS			GS1										
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 5.0		µg/l	5.0	3.2	5	SW846 8260C	25-Jan-12	25-Jan-12	eq	1201950	
67-64-1	Acetone	< 50.0		µg/l	50.0	12.8	5	"	"	"	"	"	
107-13-1	Acrylonitrile	< 2.5		µg/l	2.5	2.3	5	"	"	"	"	"	
71-43-2	Benzene	< 5.0		µg/l	5.0	3.3	5	"	"	"	"	"	
108-86-1	Bromobenzene	< 5.0		µg/l	5.0	3.6	5	"	"	"	"	"	
74-97-5	Bromochloromethane	< 5.0		µg/l	5.0	3.6	5	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 2.5		µg/l	2.5	2.4	5	"	"	"	"	"	
75-25-2	Bromoform	< 5.0		µg/l	5.0	3.0	5	"	"	"	"	"	
74-83-9	Bromomethane	< 10.0		µg/l	10.0	5.7	5	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	< 50.0		µg/l	50.0	8.7	5	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 5.0		µg/l	5.0	2.8	5	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 5.0		µg/l	5.0	4.1	5	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 5.0		µg/l	5.0	3.7	5	"	"	"	"	"	
75-15-0	Carbon disulfide	< 10.0		µg/l	10.0	3.1	5	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 5.0		µg/l	5.0	2.7	5	"	"	"	"	"	
108-90-7	Chlorobenzene	< 5.0		µg/l	5.0	3.3	5	"	"	"	"	"	
75-00-3	Chloroethane	< 10.0		µg/l	10.0	5.2	5	"	"	"	"	"	
67-66-3	Chloroform	< 5.0		µg/l	5.0	3.4	5	"	"	"	"	"	
74-87-3	Chloromethane	< 10.0		µg/l	10.0	7.4	5	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 5.0		µg/l	5.0	4.0	5	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 5.0		µg/l	5.0	3.7	5	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	< 10.0		µg/l	10.0	4.6	5	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 2.5		µg/l	2.5	1.4	5	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 2.5		µg/l	2.5	1.6	5	"	"	"	"	"	
74-95-3	Dibromomethane	< 5.0		µg/l	5.0	3.3	5	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 5.0		µg/l	5.0	3.3	5	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 5.0		µg/l	5.0	3.6	5	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 5.0		µg/l	5.0	3.1	5	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 10.0		µg/l	10.0	2.2	5	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 5.0		µg/l	5.0	3.4	5	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 5.0		µg/l	5.0	3.9	5	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 5.0		µg/l	5.0	2.4	5	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	**23.5**		µg/l	5.0	3.6	5	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 5.0		µg/l	5.0	3.4	5	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 5.0		µg/l	5.0	3.6	5	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 5.0		µg/l	5.0	4.0	5	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 5.0		µg/l	5.0	3.0	5	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 5.0		µg/l	5.0	3.2	5	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 2.5		µg/l	2.5	1.3	5	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 2.5		µg/l	2.5	2.5	5	"	"	"	"	"	
100-41-4	Ethylbenzene	< 5.0		µg/l	5.0	3.7	5	"	"	"	"	"	
87-68-3	Hexachlorobutadiene	< 2.5		µg/l	2.5	2.2	5	"	"	"	"	"	
591-78-6	2-Hexanone (MBK)	< 50.0		µg/l	50.0	2.7	5	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-20	1753-03-01	Ground Water	19-Jan-12 14:10	19-Jan-12
SB42698-03				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds Prepared by method SW846 5030 Water MS			GS1										
98-82-8	Isopropylbenzene	< 5.0		µg/l	5.0	3.1	5	SW846 8260C	25-Jan-12	25-Jan-12	eq	1201950	
99-87-6	4-Isopropyltoluene	< 5.0		µg/l	5.0	3.0	5	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 5.0		µg/l	5.0	3.3	5	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 50.0		µg/l	50.0	4.7	5	"	"	"	"	"	
75-09-2	Methylene chloride	< 10.0		µg/l	10.0	3.4	5	"	"	"	"	"	
91-20-3	Naphthalene	< 5.0		µg/l	5.0	1.7	5	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 5.0		µg/l	5.0	3.8	5	"	"	"	"	"	
100-42-5	Styrene	< 5.0		µg/l	5.0	3.1	5	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 5.0		µg/l	5.0	3.1	5	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 2.5		µg/l	2.5	1.7	5	"	"	"	"	"	
127-18-4	Tetrachloroethene	< 5.0		µg/l	5.0	3.7	5	"	"	"	"	"	
108-88-3	Toluene	< 5.0		µg/l	5.0	4.1	5	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 5.0		µg/l	5.0	1.9	5	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 5.0		µg/l	5.0	1.8	5	"	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 5.0		µg/l	5.0	3.9	5	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 5.0		µg/l	5.0	2.9	5	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 5.0		µg/l	5.0	3.2	5	"	"	"	"	"	
79-01-6	Trichloroethene	**199**		µg/l	5.0	3.8	5	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 5.0		µg/l	5.0	3.1	5	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 5.0		µg/l	5.0	3.7	5	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 5.0		µg/l	5.0	3.8	5	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 5.0		µg/l	5.0	3.7	5	"	"	"	"	"	
75-01-4	Vinyl chloride	< 5.0		µg/l	5.0	4.0	5	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 10.0		µg/l	10.0	8.2	5	"	"	"	"	"	
95-47-6	o-Xylene	< 5.0		µg/l	5.0	4.4	5	"	"	"	"	"	
109-99-9	Tetrahydrofuran	< 10.0		µg/l	10.0	7.2	5	"	"	"	"	"	
60-29-7	Ethyl ether	< 5.0		µg/l	5.0	3.5	5	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	< 5.0		µg/l	5.0	3.6	5	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 5.0		µg/l	5.0	3.9	5	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 5.0		µg/l	5.0	3.6	5	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 50.0		µg/l	50.0	43.2	5	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 100		µg/l	100	70.1	5	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-buten e	< 25.0		µg/l	25.0	3.8	5	"	"	"	"	"	
64-17-5	Ethanol	< 2000		µg/l	2000	178	5	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*92*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*103*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*110*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*106*			*70-130 %*			"	"	"	"	"	
Extractable Petroleum Hydrocarbons													
EPH Aliphatic/Aromatic Ranges Prepared by method SW846 3510C													

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-20	1753-03-01	Ground Water	19-Jan-12 14:10	19-Jan-12
SB42698-03				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Extractable Petroleum Hydrocarbons													
EPH Aliphatic/Aromatic Ranges Prepared by method SW846 3510C													
	C9-C18 Aliphatic Hydrocarbons	< 106		µg/l	106	26.4	1	MADEP EPH 5/2004 R	20-Jan-12	27-Jan-12	MP	1201600	
	C19-C36 Aliphatic Hydrocarbons	< 106		µg/l	106	83.2	1	"	"	"	"	"	
	C11-C22 Aromatic Hydrocarbons	< 106		µg/l	106	58.0	1	"	"	"	"	"	
	Unadjusted C11-C22 Aromatic Hydrocarbons	< 106		µg/l	106	58.0	1	"	"	"	"	"	
	Total Petroleum Hydrocarbons	< 106		µg/l	106	58.0	1	"	"	"	"	"	
	Unadjusted Total Petroleum Hydrocarbons	< 106		µg/l	106	58.0	1	"	"	"	"	"	
EPH Target PAH Analytes Prepared by method SW846 3510C													
91-20-3	Naphthalene	< 5.32		µg/l	5.32	2.79	1	"	"	"	"	"	
91-57-6	2-Methylnaphthalene	< 5.32		µg/l	5.32	2.68	1	"	"	"	"	"	
208-96-8	Acenaphthylene	< 5.32		µg/l	5.32	3.10	1	"	"	"	"	"	
83-32-9	Acenaphthene	< 5.32		µg/l	5.32	3.14	1	"	"	"	"	"	
86-73-7	Fluorene	< 5.32		µg/l	5.32	3.17	1	"	"	"	"	"	
85-01-8	Phenanthrene	< 5.32		µg/l	5.32	3.61	1	"	"	"	"	"	
120-12-7	Anthracene	< 5.32		µg/l	5.32	3.87	1	"	"	"	"	"	
206-44-0	Fluoranthene	< 5.32		µg/l	5.32	3.64	1	"	"	"	"	"	
129-00-0	Pyrene	< 5.32		µg/l	5.32	3.59	1	"	"	"	"	"	
56-55-3	Benzo (a) anthracene	< 5.32		µg/l	5.32	5.00	1	"	"	"	"	"	
218-01-9	Chrysene	< 5.32		µg/l	5.32	3.65	1	"	"	"	"	"	
205-99-2	Benzo (b) fluoranthene	< 5.32		µg/l	5.32	3.62	1	"	"	"	"	"	
207-08-9	Benzo (k) fluoranthene	< 5.32		µg/l	5.32	3.78	1	"	"	"	"	"	
50-32-8	Benzo (a) pyrene	< 5.32		µg/l	5.32	3.80	1	"	"	"	"	"	
193-39-5	Indeno (1,2,3-cd) pyrene	< 5.32		µg/l	5.32	5.06	1	"	"	"	"	"	
53-70-3	Dibenzo (a,h) anthracene	< 5.32		µg/l	5.32	4.60	1	"	"	"	"	"	
191-24-2	Benzo (g,h,i) perylene	< 5.32		µg/l	5.32	3.61	1	"	"	"	"	"	
Surrogate recoveries:													
3386-33-2	*1-Chlorooctadecane*	*42*			*40-140 %*			"	"	"	"	"	
84-15-1	*Ortho-Terphenyl*	*54*			*40-140 %*			"	"	"	"	"	
321-60-8	*2-Fluorobiphenyl*	*73*			*40-140 %*			"	"	"	"	"	
Soluble Metals by EPA 200/6000 Series Methods													
	Filtration	**Lab Filtered**		N/A			1	EPA 200.7/3005A/6010	20-Jan-12 10:30	20-Jan-12 10:30	AMT	1201634	
Soluble Metals by EPA 6000/7000 Series Methods													
7440-22-4	Silver	< 0.0050		mg/l	0.0050	0.0020	1	SW846 6010C	25-Jan-12	26-Jan-12	lr	1201966	
7440-38-2	Arsenic	< 0.0040		mg/l	0.0040	0.0032	1	"	"	"	"	"	
7440-39-3	Barium	**0.0795**		mg/l	0.0050	0.0034	1	"	"	"	"	"	
7440-43-9	Cadmium	< 0.0025		mg/l	0.0025	0.0001	1	"	"	"	"	"	
7440-47-3	Chromium	< 0.0050		mg/l	0.0050	0.0034	1	"	"	"	"	"	
7439-92-1	Lead	< 0.0075		mg/l	0.0075	0.0045	1	"	"	"	"	"	
7782-49-2	Selenium	< 0.0150		mg/l	0.0150	0.0024	1	"	"	"	"	"	
Soluble Metals by EPA 200 Series Methods													

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-20 SB42698-03	1753-03-01	Ground Water	19-Jan-12 14:10	19-Jan-12

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Soluble Metals by EPA 200 Series Methods													
7439-97-6	Mercury	< 0.00020		mg/l	0.00020	0.00007	1	EPA 245.1/7470A	25-Jan-12	25-Jan-12	RH	1201968	X
General Chemistry Parameters													
57-12-5	Cyanide (total)	< 0.00500		mg/l	0.00500	0.00498	1	EPA 335.4 / SW846 9012B	24-Jan-12	24-Jan-12	jak	1201888	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-7	1753-03-01	Ground Water	19-Jan-12 13:02	19-Jan-12
SB42698-04				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds Prepared by method SW846 5030 Water MS			PH										
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.6	1	SW846 8260C	24-Jan-12	24-Jan-12	eq	1201858	
67-64-1	Acetone	< 10.0		µg/l	10.0	2.6	1	"	"	"	"	"	
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	
71-43-2	Benzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
74-83-9	Bromomethane	< 2.0		µg/l	2.0	1.1	1	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	1.7	1	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-00-3	Chloroethane	< 2.0		µg/l	2.0	1.0	1	"	"	"	"	"	
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
74-87-3	Chloromethane	< 2.0		µg/l	2.0	1.5	1	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	0.5	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-7	1753-03-01	Ground Water	19-Jan-12 13:02	19-Jan-12
SB42698-04				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds Prepared by method SW846 5030 Water MS			PH										
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.6	1	SW846 8260C	24-Jan-12	24-Jan-12	eq	1201858	
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.9	1	"	"	"	"	"	
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.7	1	"	"	"	"	"	
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
100-42-5	Styrene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	
127-18-4	Tetrachloroethene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
108-88-3	Toluene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
79-01-6	Trichloroethene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	1.6	1	"	"	"	"	"	
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.9	1	"	"	"	"	"	
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	1.4	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	8.6	1	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	14.0	1	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	0.8	1	"	"	"	"	"	
64-17-5	Ethanol	< 400		µg/l	400	35.7	1	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*92*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*100*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*107*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*102*			*70-130 %*			"	"	"	"	"	
Soluble Metals by EPA 200/6000 Series Methods													
	Filtration	**Lab Filtered**		N/A			1	EPA 200.7/3005A/6010	20-Jan-12 10:30	20-Jan-12 10:30	AMT	1201634	

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Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-7	1753-03-01	Ground Water	19-Jan-12 13:02	19-Jan-12
SB42698-04				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Soluble Metals by EPA 6000/7000 Series Methods													
7440-22-4	Silver	< 0.0050		mg/l	0.0050	0.0020	1	SW846 6010C	25-Jan-12	26-Jan-12	lr	1201966	
7440-38-2	Arsenic	< 0.0040		mg/l	0.0040	0.0032	1	"	"	"	"	"	
7440-39-3	Barium	**0.0477**		mg/l	0.0050	0.0034	1	"	"	"	"	"	
7440-43-9	Cadmium	< 0.0025		mg/l	0.0025	0.0001	1	"	"	"	"	"	
7440-47-3	Chromium	< 0.0050		mg/l	0.0050	0.0034	1	"	"	"	"	"	
7439-92-1	Lead	< 0.0075		mg/l	0.0075	0.0045	1	"	"	"	"	"	
7782-49-2	Selenium	< 0.0150		mg/l	0.0150	0.0024	1	"	"	"	"	"	
Soluble Metals by EPA 200 Series Methods													
7439-97-6	Mercury	< 0.00020		mg/l	0.00020	0.00007	1	EPA 245.1/7470A	25-Jan-12	25-Jan-12	RH	1201968	X
General Chemistry Parameters													
57-12-5	Cyanide (total)	< 0.00500		mg/l	0.00500	0.00498	1	EPA 335.4 / SW846 9012B	24-Jan-12	24-Jan-12	jak	1201888	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-6 SB42698-05	1753-03-01	Ground Water	19-Jan-12 13:40	19-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.6	1	SW846 8260C	24-Jan-12	24-Jan-12	eq	1201858	
67-64-1	Acetone	< 10.0		µg/l	10.0	2.6	1	"	"	"	"	"	
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	
71-43-2	Benzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
74-83-9	Bromomethane	< 2.0		µg/l	2.0	1.1	1	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	1.7	1	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-00-3	Chloroethane	< 2.0		µg/l	2.0	1.0	1	"	"	"	"	"	
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
74-87-3	Chloromethane	< 2.0		µg/l	2.0	1.5	1	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	**22.9**		µg/l	1.0	0.7	1	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	**2.0**		µg/l	1.0	0.7	1	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	0.5	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-6 SB42698-05	1753-03-01	Ground Water	19-Jan-12 13:40	19-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds Prepared by method SW846 5030 Water MS													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.6	1	SW846 8260C	24-Jan-12	24-Jan-12	eq	1201858	
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.9	1	"	"	"	"	"	
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.7	1	"	"	"	"	"	
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
100-42-5	Styrene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	
127-18-4	Tetrachloroethene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
108-88-3	Toluene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
79-01-6	Trichloroethene	**88.2**		µg/l	1.0	0.8	1	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-01-4	Vinyl chloride	**1.4**		µg/l	1.0	0.8	1	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	1.6	1	"	"	"	"	"	
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.9	1	"	"	"	"	"	
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	1.4	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	8.6	1	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	14.0	1	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	0.8	1	"	"	"	"	"	
64-17-5	Ethanol	< 400		µg/l	400	35.7	1	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*94*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*102*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*103*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*103*			*70-130 %*			"	"	"	"	"	
Soluble Metals by EPA 200/6000 Series Methods													
	Filtration	**Lab Filtered**		N/A			1	EPA 200.7/3005A/6010	20-Jan-12 10:30	20-Jan-12 10:30	AMT	1201634	

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Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-6 SB42698-05	1753-03-01	Ground Water	19-Jan-12 13:40	19-Jan-12

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Soluble Metals by EPA 6000/7000 Series Methods													
7440-22-4	Silver	< 0.0050		mg/l	0.0050	0.0020	1	SW846 6010C	25-Jan-12	26-Jan-12	lr	1201966	
7440-38-2	Arsenic	< 0.0040		mg/l	0.0040	0.0032	1	"	"	"	"	"	
7440-39-3	Barium	**0.0558**		mg/l	0.0050	0.0034	1	"	"	"	"	"	
7440-43-9	Cadmium	< 0.0025		mg/l	0.0025	0.0001	1	"	"	"	"	"	
7440-47-3	Chromium	< 0.0050		mg/l	0.0050	0.0034	1	"	"	"	"	"	
7439-92-1	Lead	< 0.0075		mg/l	0.0075	0.0045	1	"	"	"	"	"	
7782-49-2	Selenium	< 0.0150		mg/l	0.0150	0.0024	1	"	"	"	"	"	
Soluble Metals by EPA 200 Series Methods													
7439-97-6	Mercury	< 0.00020		mg/l	0.00020	0.00007	1	EPA 245.1/7470A	25-Jan-12	25-Jan-12	RH	1201968	X
General Chemistry Parameters													
57-12-5	Cyanide (total)	< 0.00500		mg/l	0.00500	0.00498	1	EPA 335.4 / SW846 9012B	24-Jan-12	24-Jan-12	jak	1201888	X

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201858 - SW846 5030 Water MS										
Blank (1201858-BLK1)					Prepared & Analyzed: 24-Jan-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0						
Acetone	< 10.0		µg/l	10.0						
Acrylonitrile	< 0.5		µg/l	0.5						
Benzene	< 1.0		µg/l	1.0						
Bromobenzene	< 1.0		µg/l	1.0						
Bromochloromethane	< 1.0		µg/l	1.0						
Bromodichloromethane	< 0.5		µg/l	0.5						
Bromoform	< 1.0		µg/l	1.0						
Bromomethane	< 2.0		µg/l	2.0						
2-Butanone (MEK)	< 10.0		µg/l	10.0						
n-Butylbenzene	< 1.0		µg/l	1.0						
sec-Butylbenzene	< 1.0		µg/l	1.0						
tert-Butylbenzene	< 1.0		µg/l	1.0						
Carbon disulfide	< 2.0		µg/l	2.0						
Carbon tetrachloride	< 1.0		µg/l	1.0						
Chlorobenzene	< 1.0		µg/l	1.0						
Chloroethane	< 2.0		µg/l	2.0						
Chloroform	< 1.0		µg/l	1.0						
Chloromethane	< 2.0		µg/l	2.0						
2-Chlorotoluene	< 1.0		µg/l	1.0						
4-Chlorotoluene	< 1.0		µg/l	1.0						
1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0						
Dibromochloromethane	< 0.5		µg/l	0.5						
1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5						
Dibromomethane	< 1.0		µg/l	1.0						
1,2-Dichlorobenzene	< 1.0		µg/l	1.0						
1,3-Dichlorobenzene	< 1.0		µg/l	1.0						
1,4-Dichlorobenzene	< 1.0		µg/l	1.0						
Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0						
1,1-Dichloroethane	< 1.0		µg/l	1.0						
1,2-Dichloroethane	< 1.0		µg/l	1.0						
1,1-Dichloroethene	< 1.0		µg/l	1.0						
cis-1,2-Dichloroethene	< 1.0		µg/l	1.0						
trans-1,2-Dichloroethene	< 1.0		µg/l	1.0						
1,2-Dichloropropane	< 1.0		µg/l	1.0						
1,3-Dichloropropane	< 1.0		µg/l	1.0						
2,2-Dichloropropane	< 1.0		µg/l	1.0						
1,1-Dichloropropene	< 1.0		µg/l	1.0						
cis-1,3-Dichloropropene	< 0.5		µg/l	0.5						
trans-1,3-Dichloropropene	< 0.5		µg/l	0.5						
Ethylbenzene	< 1.0		µg/l	1.0						
Hexachlorobutadiene	< 0.5		µg/l	0.5						
2-Hexanone (MBK)	< 10.0		µg/l	10.0						
Isopropylbenzene	< 1.0		µg/l	1.0						
4-Isopropyltoluene	< 1.0		µg/l	1.0						
Methyl tert-butyl ether	< 1.0		µg/l	1.0						
4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0						
Methylene chloride	< 2.0		µg/l	2.0						
Naphthalene	< 1.0		µg/l	1.0						
n-Propylbenzene	< 1.0		µg/l	1.0						
Styrene	< 1.0		µg/l	1.0						
1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201858 - SW846 5030 Water MS										
Blank (1201858-BLK1)					Prepared & Analyzed: 24-Jan-12					
1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5						
Tetrachloroethene	< 1.0		µg/l	1.0						
Toluene	< 1.0		µg/l	1.0						
1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0						
1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0						
1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0						
1,1,1-Trichloroethane	< 1.0		µg/l	1.0						
1,1,2-Trichloroethane	< 1.0		µg/l	1.0						
Trichloroethene	< 1.0		µg/l	1.0						
Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0						
1,2,3-Trichloropropane	< 1.0		µg/l	1.0						
1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0						
1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0						
Vinyl chloride	< 1.0		µg/l	1.0						
m,p-Xylene	< 2.0		µg/l	2.0						
o-Xylene	< 1.0		µg/l	1.0						
Tetrahydrofuran	< 2.0		µg/l	2.0						
Ethyl ether	< 1.0		µg/l	1.0						
Tert-amyl methyl ether	< 1.0		µg/l	1.0						
Ethyl tert-butyl ether	< 1.0		µg/l	1.0						
Di-isopropyl ether	< 1.0		µg/l	1.0						
Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0						
1,4-Dioxane	< 20.0		µg/l	20.0						
trans-1,4-Dichloro-2-butene	< 5.0		µg/l	5.0						
Ethanol	< 400		µg/l	400						
Surrogate: 4-Bromofluorobenzene	*46.2*		µg/l		*50.0*		*92*	*70-130*		
Surrogate: Toluene-d8	*50.5*		µg/l		*50.0*		*101*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*53.4*		µg/l		*50.0*		*107*	*70-130*		
Surrogate: Dibromofluoromethane	*53.1*		µg/l		*50.0*		*106*	*70-130*		
LCS (1201858-BS1)					Prepared & Analyzed: 24-Jan-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**19.7**		µg/l		20.0		99	70-130		
Acetone	**16.0**		µg/l		20.0		80	70-130		
Acrylonitrile	**18.4**		µg/l		20.0		92	70-130		
Benzene	**19.9**		µg/l		20.0		100	70-130		
Bromobenzene	**24.9**		µg/l		20.0		125	70-130		
Bromochloromethane	**20.8**		µg/l		20.0		104	70-130		
Bromodichloromethane	**23.2**		µg/l		20.0		116	70-130		
Bromoform	**27.0**	QM9	µg/l		20.0		135	70-130		
Bromomethane	**24.7**		µg/l		20.0		124	70-130		
2-Butanone (MEK)	**20.0**		µg/l		20.0		100	70-130		
n-Butylbenzene	**20.2**		µg/l		20.0		101	70-130		
sec-Butylbenzene	**22.9**		µg/l		20.0		114	70-130		
tert-Butylbenzene	**23.1**		µg/l		20.0		116	70-130		
Carbon disulfide	**18.5**		µg/l		20.0		92	70-130		
Carbon tetrachloride	**24.6**		µg/l		20.0		123	70-130		
Chlorobenzene	**19.6**		µg/l		20.0		98	70-130		
Chloroethane	**20.1**		µg/l		20.0		100	70-130		
Chloroform	**22.2**		µg/l		20.0		111	70-130		
Chloromethane	**19.8**		µg/l		20.0		99	70-130		
2-Chlorotoluene	**21.1**		µg/l		20.0		106	70-130		
4-Chlorotoluene	**22.2**		µg/l		20.0		111	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201858 - SW846 5030 Water MS										
LCS (1201858-BS1)					Prepared & Analyzed: 24-Jan-12					
1,2-Dibromo-3-chloropropane	**21.3**		µg/l		20.0		106	70-130		
Dibromochloromethane	**25.1**		µg/l		20.0		125	70-130		
1,2-Dibromoethane (EDB)	**20.9**		µg/l		20.0		104	70-130		
Dibromomethane	**20.1**		µg/l		20.0		100	70-130		
1,2-Dichlorobenzene	**20.2**		µg/l		20.0		101	70-130		
1,3-Dichlorobenzene	**23.9**		µg/l		20.0		119	70-130		
1,4-Dichlorobenzene	**19.4**		µg/l		20.0		97	70-130		
Dichlorodifluoromethane (Freon12)	**21.0**		µg/l		20.0		105	70-130		
1,1-Dichloroethane	**19.2**		µg/l		20.0		96	70-130		
1,2-Dichloroethane	**20.8**		µg/l		20.0		104	70-130		
1,1-Dichloroethene	**19.6**		µg/l		20.0		98	70-130		
cis-1,2-Dichloroethene	**21.1**		µg/l		20.0		106	70-130		
trans-1,2-Dichloroethene	**17.9**		µg/l		20.0		89	70-130		
1,2-Dichloropropane	**20.1**		µg/l		20.0		100	70-130		
1,3-Dichloropropane	**20.1**		µg/l		20.0		100	70-130		
2,2-Dichloropropane	**22.2**		µg/l		20.0		111	70-130		
1,1-Dichloropropene	**20.3**		µg/l		20.0		102	70-130		
cis-1,3-Dichloropropene	**21.6**		µg/l		20.0		108	70-130		
trans-1,3-Dichloropropene	**24.8**		µg/l		20.0		124	70-130		
Ethylbenzene	**21.8**		µg/l		20.0		109	70-130		
Hexachlorobutadiene	**27.0**	QM9	µg/l		20.0		135	70-130		
2-Hexanone (MBK)	**21.5**		µg/l		20.0		108	70-130		
Isopropylbenzene	**21.9**		µg/l		20.0		109	70-130		
4-Isopropyltoluene	**20.0**		µg/l		20.0		100	70-130		
Methyl tert-butyl ether	**20.0**		µg/l		20.0		100	70-130		
4-Methyl-2-pentanone (MIBK)	**22.8**		µg/l		20.0		114	70-130		
Methylene chloride	**18.0**		µg/l		20.0		90	70-130		
Naphthalene	**20.1**		µg/l		20.0		100	70-130		
n-Propylbenzene	**22.3**		µg/l		20.0		111	70-130		
Styrene	**21.9**		µg/l		20.0		109	70-130		
1,1,1,2-Tetrachloroethane	**25.8**		µg/l		20.0		129	70-130		
1,1,2,2-Tetrachloroethane	**22.2**		µg/l		20.0		111	70-130		
Tetrachloroethene	**24.7**		µg/l		20.0		124	70-130		
Toluene	**20.1**		µg/l		20.0		101	70-130		
1,2,3-Trichlorobenzene	**26.2**	QM9	µg/l		20.0		131	70-130		
1,2,4-Trichlorobenzene	**23.2**		µg/l		20.0		116	70-130		
1,3,5-Trichlorobenzene	**24.2**		µg/l		20.0		121	70-130		
1,1,1-Trichloroethane	**22.5**		µg/l		20.0		113	70-130		
1,1,2-Trichloroethane	**19.4**		µg/l		20.0		97	70-130		
Trichloroethene	**18.8**		µg/l		20.0		94	70-130		
Trichlorofluoromethane (Freon 11)	**19.7**		µg/l		20.0		99	70-130		
1,2,3-Trichloropropane	**21.2**		µg/l		20.0		106	70-130		
1,2,4-Trimethylbenzene	**23.0**		µg/l		20.0		115	70-130		
1,3,5-Trimethylbenzene	**23.0**		µg/l		20.0		115	70-130		
Vinyl chloride	**20.1**		µg/l		20.0		101	70-130		
m,p-Xylene	**44.1**		µg/l		40.0		110	70-130		
o-Xylene	**22.9**		µg/l		20.0		114	70-130		
Tetrahydrofuran	**19.1**		µg/l		20.0		96	70-130		
Ethyl ether	**18.8**		µg/l		20.0		94	70-130		
Tert-amyl methyl ether	**19.4**		µg/l		20.0		97	70-130		
Ethyl tert-butyl ether	**19.8**		µg/l		20.0		99	70-130		
Di-isopropyl ether	**19.5**		µg/l		20.0		98	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201858 - SW846 5030 Water MS										
LCS (1201858-BS1)					Prepared & Analyzed: 24-Jan-12					
Tert-Butanol / butyl alcohol	**167**		µg/l		200		83	70-130		
1,4-Dioxane	**201**		µg/l		200		101	70-130		
trans-1,4-Dichloro-2-butene	**25.4**		µg/l		20.0		127	70-130		
Ethanol	**387**		µg/l		400		97	70-130		
Surrogate: 4-Bromofluorobenzene	*51.9*		µg/l		*50.0*		*104*	*70-130*		
Surrogate: Toluene-d8	*50.3*		µg/l		*50.0*		*101*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*50.4*		µg/l		*50.0*		*101*	*70-130*		
Surrogate: Dibromofluoromethane	*50.8*		µg/l		*50.0*		*102*	*70-130*		
LCS Dup (1201858-BSD1)					Prepared & Analyzed: 24-Jan-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**18.7**		µg/l		20.0		94	70-130	5	25
Acetone	**16.8**		µg/l		20.0		84	70-130	4	50
Acrylonitrile	**18.5**		µg/l		20.0		92	70-130	0.1	25
Benzene	**19.1**		µg/l		20.0		96	70-130	4	25
Bromobenzene	**22.7**		µg/l		20.0		113	70-130	9	25
Bromochloromethane	**20.0**		µg/l		20.0		100	70-130	4	25
Bromodichloromethane	**22.6**		µg/l		20.0		113	70-130	3	25
Bromoform	**26.0**		µg/l		20.0		130	70-130	4	25
Bromomethane	**22.6**		µg/l		20.0		113	70-130	9	50
2-Butanone (MEK)	**17.5**		µg/l		20.0		88	70-130	13	50
n-Butylbenzene	**19.5**		µg/l		20.0		98	70-130	4	25
sec-Butylbenzene	**21.2**		µg/l		20.0		106	70-130	8	25
tert-Butylbenzene	**21.3**		µg/l		20.0		106	70-130	8	25
Carbon disulfide	**17.7**		µg/l		20.0		88	70-130	5	25
Carbon tetrachloride	**23.5**		µg/l		20.0		118	70-130	5	25
Chlorobenzene	**19.0**		µg/l		20.0		95	70-130	3	25
Chloroethane	**18.5**		µg/l		20.0		93	70-130	8	50
Chloroform	**22.0**		µg/l		20.0		110	70-130	1	25
Chloromethane	**19.2**		µg/l		20.0		96	70-130	3	25
2-Chlorotoluene	**19.9**		µg/l		20.0		99	70-130	6	25
4-Chlorotoluene	**20.7**		µg/l		20.0		104	70-130	7	25
1,2-Dibromo-3-chloropropane	**22.8**		µg/l		20.0		114	70-130	7	25
Dibromochloromethane	**24.1**		µg/l		20.0		121	70-130	4	50
1,2-Dibromoethane (EDB)	**20.7**		µg/l		20.0		104	70-130	0.7	25
Dibromomethane	**20.8**		µg/l		20.0		104	70-130	4	25
1,2-Dichlorobenzene	**19.8**		µg/l		20.0		99	70-130	2	25
1,3-Dichlorobenzene	**22.7**		µg/l		20.0		114	70-130	5	25
1,4-Dichlorobenzene	**18.8**		µg/l		20.0		94	70-130	3	25
Dichlorodifluoromethane (Freon12)	**19.8**		µg/l		20.0		99	70-130	6	50
1,1-Dichloroethane	**18.7**		µg/l		20.0		94	70-130	2	25
1,2-Dichloroethane	**20.2**		µg/l		20.0		101	70-130	3	25
1,1-Dichloroethene	**18.5**		µg/l		20.0		92	70-130	6	25
cis-1,2-Dichloroethene	**19.9**		µg/l		20.0		100	70-130	6	25
trans-1,2-Dichloroethene	**17.1**		µg/l		20.0		86	70-130	4	25
1,2-Dichloropropane	**19.5**		µg/l		20.0		98	70-130	3	25
1,3-Dichloropropane	**19.5**		µg/l		20.0		97	70-130	3	25
2,2-Dichloropropane	**20.5**		µg/l		20.0		102	70-130	8	25
1,1-Dichloropropene	**19.8**		µg/l		20.0		99	70-130	2	25
cis-1,3-Dichloropropene	**20.7**		µg/l		20.0		104	70-130	4	25
trans-1,3-Dichloropropene	**24.1**		µg/l		20.0		121	70-130	3	25
Ethylbenzene	**20.0**		µg/l		20.0		100	70-130	9	25
Hexachlorobutadiene	**25.1**		µg/l		20.0		125	70-130	7	50

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201858 - SW846 5030 Water MS										
LCS Dup (1201858-BSD1)					Prepared & Analyzed: 24-Jan-12					
2-Hexanone (MBK)	**22.1**		µg/l		20.0		111	70-130	3	25
Isopropylbenzene	**20.2**		µg/l		20.0		101	70-130	8	25
4-Isopropyltoluene	**19.2**		µg/l		20.0		96	70-130	4	25
Methyl tert-butyl ether	**18.5**		µg/l		20.0		92	70-130	8	25
4-Methyl-2-pentanone (MIBK)	**23.3**		µg/l		20.0		117	70-130	2	50
Methylene chloride	**18.1**		µg/l		20.0		90	70-130	0.2	25
Naphthalene	**18.8**		µg/l		20.0		94	70-130	6	25
n-Propylbenzene	**20.7**		µg/l		20.0		104	70-130	7	25
Styrene	**20.7**		µg/l		20.0		104	70-130	5	25
1,1,1,2-Tetrachloroethane	**23.9**		µg/l		20.0		119	70-130	8	25
1,1,2,2-Tetrachloroethane	**21.2**		µg/l		20.0		106	70-130	4	25
Tetrachloroethene	**22.5**		µg/l		20.0		112	70-130	9	25
Toluene	**19.2**		µg/l		20.0		96	70-130	4	25
1,2,3-Trichlorobenzene	**23.8**		µg/l		20.0		119	70-130	9	25
1,2,4-Trichlorobenzene	**22.2**		µg/l		20.0		111	70-130	4	25
1,3,5-Trichlorobenzene	**22.8**		µg/l		20.0		114	70-130	6	25
1,1,1-Trichloroethane	**21.4**		µg/l		20.0		107	70-130	5	25
1,1,2-Trichloroethane	**19.3**		µg/l		20.0		96	70-130	0.8	25
Trichloroethene	**18.4**		µg/l		20.0		92	70-130	2	25
Trichlorofluoromethane (Freon 11)	**18.8**		µg/l		20.0		94	70-130	5	50
1,2,3-Trichloropropane	**21.0**		µg/l		20.0		105	70-130	0.9	25
1,2,4-Trimethylbenzene	**21.3**		µg/l		20.0		107	70-130	7	25
1,3,5-Trimethylbenzene	**21.2**		µg/l		20.0		106	70-130	8	25
Vinyl chloride	**19.4**		µg/l		20.0		97	70-130	4	25
m,p-Xylene	**41.0**		µg/l		40.0		103	70-130	7	25
o-Xylene	**21.6**		µg/l		20.0		108	70-130	6	25
Tetrahydrofuran	**20.0**		µg/l		20.0		100	70-130	5	25
Ethyl ether	**19.0**		µg/l		20.0		95	70-130	1	50
Tert-amyl methyl ether	**19.1**		µg/l		20.0		95	70-130	2	25
Ethyl tert-butyl ether	**19.6**		µg/l		20.0		98	70-130	1	25
Di-isopropyl ether	**19.6**		µg/l		20.0		98	70-130	0.4	25
Tert-Butanol / butyl alcohol	**166**		µg/l		200		83	70-130	0.6	25
1,4-Dioxane	**195**		µg/l		200		97	70-130	3	25
trans-1,4-Dichloro-2-butene	**25.0**		µg/l		20.0		125	70-130	2	25
Ethanol	**391**		µg/l		400		98	70-130	0.9	30
Surrogate: 4-Bromofluorobenzene	*50.2*		µg/l		*50.0*		*100*	*70-130*		
Surrogate: Toluene-d8	*50.1*		µg/l		*50.0*		*100*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*51.7*		µg/l		*50.0*		*103*	*70-130*		
Surrogate: Dibromofluoromethane	*50.4*		µg/l		*50.0*		*101*	*70-130*		
Matrix Spike (1201858-MS1)			**Source: SB42698-01**		Prepared & Analyzed: 24-Jan-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**17.9**		µg/l		20.0	BRL	89	70-130		
Acetone	**15.0**		µg/l		20.0	0.2	74	70-130		
Acrylonitrile	**16.7**		µg/l		20.0	BRL	84	70-130		
Benzene	**17.5**		µg/l		20.0	BRL	88	70-130		
Bromobenzene	**22.0**		µg/l		20.0	BRL	110	70-130		
Bromochloromethane	**18.7**		µg/l		20.0	BRL	94	70-130		
Bromodichloromethane	**20.7**		µg/l		20.0	BRL	103	70-130		
Bromoform	**25.0**		µg/l		20.0	BRL	125	70-130		
Bromomethane	**18.8**		µg/l		20.0	BRL	94	70-130		
2-Butanone (MEK)	**17.2**		µg/l		20.0	BRL	86	70-130		
n-Butylbenzene	**17.9**		µg/l		20.0	BRL	89	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201858 - SW846 5030 Water MS										
Matrix Spike (1201858-MS1)			**Source: SB42698-01**		Prepared & Analyzed: 24-Jan-12					
sec-Butylbenzene	**20.2**		µg/l		20.0	BRL	101	70-130		
tert-Butylbenzene	**19.8**		µg/l		20.0	BRL	99	70-130		
Carbon disulfide	**14.6**		µg/l		20.0	BRL	73	70-130		
Carbon tetrachloride	**20.8**		µg/l		20.0	BRL	104	70-130		
Chlorobenzene	**18.2**		µg/l		20.0	BRL	91	70-130		
Chloroethane	**15.6**		µg/l		20.0	BRL	78	70-130		
Chloroform	**19.7**		µg/l		20.0	BRL	98	70-130		
Chloromethane	**14.4**		µg/l		20.0	BRL	72	70-130		
2-Chlorotoluene	**18.6**		µg/l		20.0	BRL	93	70-130		
4-Chlorotoluene	**19.4**		µg/l		20.0	BRL	97	70-130		
1,2-Dibromo-3-chloropropane	**18.9**		µg/l		20.0	BRL	94	70-130		
Dibromochloromethane	**22.0**		µg/l		20.0	BRL	110	70-130		
1,2-Dibromoethane (EDB)	**19.5**		µg/l		20.0	BRL	97	70-130		
Dibromomethane	**19.0**		µg/l		20.0	BRL	95	70-130		
1,2-Dichlorobenzene	**18.6**		µg/l		20.0	BRL	93	70-130		
1,3-Dichlorobenzene	**21.2**		µg/l		20.0	BRL	106	70-130		
1,4-Dichlorobenzene	**17.1**		µg/l		20.0	BRL	86	70-130		
Dichlorodifluoromethane (Freon12)	**13.6**	QM7	µg/l		20.0	BRL	68	70-130		
1,1-Dichloroethane	**17.1**		µg/l		20.0	BRL	85	70-130		
1,2-Dichloroethane	**18.8**		µg/l		20.0	BRL	94	70-130		
1,1-Dichloroethene	**16.7**		µg/l		20.0	BRL	84	70-130		
cis-1,2-Dichloroethene	**18.3**		µg/l		20.0	BRL	91	70-130		
trans-1,2-Dichloroethene	**15.4**		µg/l		20.0	BRL	77	70-130		
1,2-Dichloropropane	**18.5**		µg/l		20.0	BRL	93	70-130		
1,3-Dichloropropane	**18.2**		µg/l		20.0	BRL	91	70-130		
2,2-Dichloropropane	**18.5**		µg/l		20.0	BRL	92	70-130		
1,1-Dichloropropene	**17.4**		µg/l		20.0	BRL	87	70-130		
cis-1,3-Dichloropropene	**18.4**		µg/l		20.0	BRL	92	70-130		
trans-1,3-Dichloropropene	**21.2**		µg/l		20.0	BRL	106	70-130		
Ethylbenzene	**18.6**		µg/l		20.0	BRL	93	70-130		
Hexachlorobutadiene	**23.8**		µg/l		20.0	BRL	119	70-130		
2-Hexanone (MBK)	**21.1**		µg/l		20.0	BRL	106	70-130		
Isopropylbenzene	**19.2**		µg/l		20.0	BRL	96	70-130		
4-Isopropyltoluene	**17.5**		µg/l		20.0	BRL	88	70-130		
Methyl tert-butyl ether	**19.8**		µg/l		20.0	BRL	99	70-130		
4-Methyl-2-pentanone (MIBK)	**21.1**		µg/l		20.0	BRL	106	70-130		
Methylene chloride	**16.0**		µg/l		20.0	BRL	80	70-130		
Naphthalene	**16.8**		µg/l		20.0	BRL	84	70-130		
n-Propylbenzene	**19.6**		µg/l		20.0	BRL	98	70-130		
Styrene	**20.0**		µg/l		20.0	BRL	100	70-130		
1,1,1,2-Tetrachloroethane	**22.0**		µg/l		20.0	BRL	110	70-130		
1,1,2,2-Tetrachloroethane	**21.0**		µg/l		20.0	BRL	105	70-130		
Tetrachloroethene	**21.6**		µg/l		20.0	BRL	108	70-130		
Toluene	**18.0**		µg/l		20.0	BRL	90	70-130		
1,2,3-Trichlorobenzene	**21.8**		µg/l		20.0	BRL	109	70-130		
1,2,4-Trichlorobenzene	**19.9**		µg/l		20.0	BRL	99	70-130		
1,3,5-Trichlorobenzene	**20.7**		µg/l		20.0	BRL	104	70-130		
1,1,1-Trichloroethane	**19.7**		µg/l		20.0	BRL	99	70-130		
1,1,2-Trichloroethane	**18.8**		µg/l		20.0	BRL	94	70-130		
Trichloroethene	**16.8**		µg/l		20.0	BRL	84	70-130		
Trichlorofluoromethane (Freon 11)	**16.6**		µg/l		20.0	BRL	83	70-130		
1,2,3-Trichloropropane	**19.6**		µg/l		20.0	BRL	98	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201858 - SW846 5030 Water MS										
Matrix Spike (1201858-MS1)			**Source: SB42698-01**		Prepared & Analyzed: 24-Jan-12					
1,2,4-Trimethylbenzene	**20.2**		µg/l		20.0	BRL	101	70-130		
1,3,5-Trimethylbenzene	**19.7**		µg/l		20.0	BRL	99	70-130		
Vinyl chloride	**17.7**		µg/l		20.0	BRL	88	70-130		
m,p-Xylene	**39.3**		µg/l		40.0	BRL	98	70-130		
o-Xylene	**20.5**		µg/l		20.0	BRL	102	70-130		
Tetrahydrofuran	**17.5**		µg/l		20.0	BRL	87	70-130		
Ethyl ether	**17.3**		µg/l		20.0	BRL	87	70-130		
Tert-amyl methyl ether	**18.1**		µg/l		20.0	BRL	90	70-130		
Ethyl tert-butyl ether	**17.1**		µg/l		20.0	BRL	86	70-130		
Di-isopropyl ether	**17.6**		µg/l		20.0	BRL	88	70-130		
Tert-Butanol / butyl alcohol	**156**		µg/l		200	BRL	78	70-130		
1,4-Dioxane	**180**		µg/l		200	BRL	90	70-130		
trans-1,4-Dichloro-2-butene	**21.6**		µg/l		20.0	BRL	108	70-130		
Ethanol	**368**		µg/l		400	BRL	92	70-130		
Surrogate: 4-Bromofluorobenzene	*51.6*		µg/l		*50.0*		*103*	*70-130*		
Surrogate: Toluene-d8	*49.9*		µg/l		*50.0*		*100*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*50.5*		µg/l		*50.0*		*101*	*70-130*		
Surrogate: Dibromofluoromethane	*49.8*		µg/l		*50.0*		*100*	*70-130*		
Matrix Spike Dup (1201858-MSD1)			**Source: SB42698-01**		Prepared & Analyzed: 24-Jan-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**18.8**		µg/l		20.0	BRL	94	70-130	5	30
Acetone	**15.6**		µg/l		20.0	0.2	77	70-130	4	30
Acrylonitrile	**18.6**		µg/l		20.0	BRL	93	70-130	11	30
Benzene	**18.0**		µg/l		20.0	BRL	90	70-130	3	30
Bromobenzene	**22.4**		µg/l		20.0	BRL	112	70-130	2	30
Bromochloromethane	**19.2**		µg/l		20.0	BRL	96	70-130	2	30
Bromodichloromethane	**21.2**		µg/l		20.0	BRL	106	70-130	2	30
Bromoform	**25.6**		µg/l		20.0	BRL	128	70-130	2	30
Bromomethane	**20.7**		µg/l		20.0	BRL	104	70-130	9	30
2-Butanone (MEK)	**20.1**		µg/l		20.0	BRL	101	70-130	16	30
n-Butylbenzene	**19.1**		µg/l		20.0	BRL	96	70-130	7	30
sec-Butylbenzene	**20.9**		µg/l		20.0	BRL	104	70-130	3	30
tert-Butylbenzene	**20.6**		µg/l		20.0	BRL	103	70-130	4	30
Carbon disulfide	**15.2**		µg/l		20.0	BRL	76	70-130	4	30
Carbon tetrachloride	**21.7**		µg/l		20.0	BRL	108	70-130	4	30
Chlorobenzene	**18.4**		µg/l		20.0	BRL	92	70-130	1	30
Chloroethane	**17.2**		µg/l		20.0	BRL	86	70-130	9	30
Chloroform	**20.4**		µg/l		20.0	BRL	102	70-130	4	30
Chloromethane	**15.3**		µg/l		20.0	BRL	77	70-130	6	30
2-Chlorotoluene	**19.9**		µg/l		20.0	BRL	100	70-130	7	30
4-Chlorotoluene	**20.0**		µg/l		20.0	BRL	100	70-130	4	30
1,2-Dibromo-3-chloropropane	**19.4**		µg/l		20.0	BRL	97	70-130	3	30
Dibromochloromethane	**23.5**		µg/l		20.0	BRL	118	70-130	7	30
1,2-Dibromoethane (EDB)	**19.8**		µg/l		20.0	BRL	99	70-130	2	30
Dibromomethane	**20.0**		µg/l		20.0	BRL	100	70-130	5	30
1,2-Dichlorobenzene	**19.0**		µg/l		20.0	BRL	95	70-130	2	30
1,3-Dichlorobenzene	**22.0**		µg/l		20.0	BRL	110	70-130	4	30
1,4-Dichlorobenzene	**17.9**		µg/l		20.0	BRL	90	70-130	5	30
Dichlorodifluoromethane (Freon12)	**15.2**		µg/l		20.0	BRL	76	70-130	11	30
1,1-Dichloroethane	**18.7**		µg/l		20.0	BRL	94	70-130	9	30
1,2-Dichloroethane	**19.2**		µg/l		20.0	BRL	96	70-130	2	30
1,1-Dichloroethene	**17.1**		µg/l		20.0	BRL	85	70-130	2	30

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201858 - SW846 5030 Water MS										
Matrix Spike Dup (1201858-MSD1)			**Source: SB42698-01**		Prepared & Analyzed: 24-Jan-12					
cis-1,2-Dichloroethene	**19.0**		µg/l		20.0	BRL	95	70-130	4	30
trans-1,2-Dichloroethene	**16.2**		µg/l		20.0	BRL	81	70-130	5	30
1,2-Dichloropropane	**18.6**		µg/l		20.0	BRL	93	70-130	0.3	30
1,3-Dichloropropane	**19.1**		µg/l		20.0	BRL	95	70-130	5	30
2,2-Dichloropropane	**18.7**		µg/l		20.0	BRL	94	70-130	1	30
1,1-Dichloropropene	**18.3**		µg/l		20.0	BRL	92	70-130	5	30
cis-1,3-Dichloropropene	**20.1**		µg/l		20.0	BRL	100	70-130	9	30
trans-1,3-Dichloropropene	**22.0**		µg/l		20.0	BRL	110	70-130	4	30
Ethylbenzene	**19.2**		µg/l		20.0	BRL	96	70-130	3	30
Hexachlorobutadiene	**25.0**		µg/l		20.0	BRL	125	70-130	5	30
2-Hexanone (MBK)	**21.1**		µg/l		20.0	BRL	105	70-130	0.09	30
Isopropylbenzene	**19.8**		µg/l		20.0	BRL	99	70-130	3	30
4-Isopropyltoluene	**18.3**		µg/l		20.0	BRL	91	70-130	4	30
Methyl tert-butyl ether	**21.4**		µg/l		20.0	BRL	107	70-130	8	30
4-Methyl-2-pentanone (MIBK)	**22.5**		µg/l		20.0	BRL	112	70-130	6	30
Methylene chloride	**17.0**		µg/l		20.0	BRL	85	70-130	6	30
Naphthalene	**19.0**		µg/l		20.0	BRL	95	70-130	12	30
n-Propylbenzene	**20.4**		µg/l		20.0	BRL	102	70-130	4	30
Styrene	**20.3**		µg/l		20.0	BRL	102	70-130	2	30
1,1,1,2-Tetrachloroethane	**23.1**		µg/l		20.0	BRL	116	70-130	5	30
1,1,2,2-Tetrachloroethane	**21.1**		µg/l		20.0	BRL	105	70-130	0.4	30
Tetrachloroethene	**22.9**		µg/l		20.0	BRL	114	70-130	6	30
Toluene	**18.5**		µg/l		20.0	BRL	93	70-130	3	30
1,2,3-Trichlorobenzene	**23.6**		µg/l		20.0	BRL	118	70-130	8	30
1,2,4-Trichlorobenzene	**21.5**		µg/l		20.0	BRL	107	70-130	8	30
1,3,5-Trichlorobenzene	**21.8**		µg/l		20.0	BRL	109	70-130	5	30
1,1,1-Trichloroethane	**20.1**		µg/l		20.0	BRL	100	70-130	2	30
1,1,2-Trichloroethane	**19.1**		µg/l		20.0	BRL	96	70-130	1	30
Trichloroethene	**17.8**		µg/l		20.0	BRL	89	70-130	5	30
Trichlorofluoromethane (Freon 11)	**17.4**		µg/l		20.0	BRL	87	70-130	5	30
1,2,3-Trichloropropane	**20.0**		µg/l		20.0	BRL	100	70-130	2	30
1,2,4-Trimethylbenzene	**20.7**		µg/l		20.0	BRL	104	70-130	3	30
1,3,5-Trimethylbenzene	**21.0**		µg/l		20.0	BRL	105	70-130	6	30
Vinyl chloride	**18.4**		µg/l		20.0	BRL	92	70-130	4	30
m,p-Xylene	**40.2**		µg/l		40.0	BRL	100	70-130	2	30
o-Xylene	**20.6**		µg/l		20.0	BRL	103	70-130	0.9	30
Tetrahydrofuran	**19.9**		µg/l		20.0	BRL	100	70-130	13	30
Ethyl ether	**17.8**		µg/l		20.0	BRL	89	70-130	3	30
Tert-amyl methyl ether	**18.4**		µg/l		20.0	BRL	92	70-130	2	30
Ethyl tert-butyl ether	**18.3**		µg/l		20.0	BRL	92	70-130	7	30
Di-isopropyl ether	**18.5**		µg/l		20.0	BRL	92	70-130	5	30
Tert-Butanol / butyl alcohol	**155**		µg/l		200	BRL	78	70-130	0.4	30
1,4-Dioxane	**186**		µg/l		200	BRL	93	70-130	4	30
trans-1,4-Dichloro-2-butene	**25.7**		µg/l		20.0	BRL	129	70-130	17	30
Ethanol	**385**		µg/l		400	BRL	96	70-130	4	30
Surrogate: 4-Bromofluorobenzene	*51.3*		µg/l		*50.0*		*103*	*70-130*		
Surrogate: Toluene-d8	*50.4*		µg/l		*50.0*		*101*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*51.8*		µg/l		*50.0*		*104*	*70-130*		
Surrogate: Dibromofluoromethane	*51.0*		µg/l		*50.0*		*102*	*70-130*		
Batch 1201950 - SW846 5030 Water MS										
Blank (1201950-BLK1)					Prepared & Analyzed: 25-Jan-12					

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201950 - SW846 5030 Water MS										
Blank (1201950-BLK1)					Prepared & Analyzed: 25-Jan-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0						
Acetone	< 10.0		µg/l	10.0						
Acrylonitrile	< 0.5		µg/l	0.5						
Benzene	< 1.0		µg/l	1.0						
Bromobenzene	< 1.0		µg/l	1.0						
Bromochloromethane	< 1.0		µg/l	1.0						
Bromodichloromethane	< 0.5		µg/l	0.5						
Bromoform	< 1.0		µg/l	1.0						
Bromomethane	< 2.0		µg/l	2.0						
2-Butanone (MEK)	< 10.0		µg/l	10.0						
n-Butylbenzene	< 1.0		µg/l	1.0						
sec-Butylbenzene	< 1.0		µg/l	1.0						
tert-Butylbenzene	< 1.0		µg/l	1.0						
Carbon disulfide	< 2.0		µg/l	2.0						
Carbon tetrachloride	< 1.0		µg/l	1.0						
Chlorobenzene	< 1.0		µg/l	1.0						
Chloroethane	< 2.0		µg/l	2.0						
Chloroform	< 1.0		µg/l	1.0						
Chloromethane	< 2.0		µg/l	2.0						
2-Chlorotoluene	< 1.0		µg/l	1.0						
4-Chlorotoluene	< 1.0		µg/l	1.0						
1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0						
Dibromochloromethane	< 0.5		µg/l	0.5						
1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5						
Dibromomethane	< 1.0		µg/l	1.0						
1,2-Dichlorobenzene	< 1.0		µg/l	1.0						
1,3-Dichlorobenzene	< 1.0		µg/l	1.0						
1,4-Dichlorobenzene	< 1.0		µg/l	1.0						
Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0						
1,1-Dichloroethane	< 1.0		µg/l	1.0						
1,2-Dichloroethane	< 1.0		µg/l	1.0						
1,1-Dichloroethene	< 1.0		µg/l	1.0						
cis-1,2-Dichloroethene	< 1.0		µg/l	1.0						
trans-1,2-Dichloroethene	< 1.0		µg/l	1.0						
1,2-Dichloropropane	< 1.0		µg/l	1.0						
1,3-Dichloropropane	< 1.0		µg/l	1.0						
2,2-Dichloropropane	< 1.0		µg/l	1.0						
1,1-Dichloropropene	< 1.0		µg/l	1.0						
cis-1,3-Dichloropropene	< 0.5		µg/l	0.5						
trans-1,3-Dichloropropene	< 0.5		µg/l	0.5						
Ethylbenzene	< 1.0		µg/l	1.0						
Hexachlorobutadiene	< 0.5		µg/l	0.5						
2-Hexanone (MBK)	< 10.0		µg/l	10.0						
Isopropylbenzene	< 1.0		µg/l	1.0						
4-Isopropyltoluene	< 1.0		µg/l	1.0						
Methyl tert-butyl ether	< 1.0		µg/l	1.0						
4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0						
Methylene chloride	< 2.0		µg/l	2.0						
Naphthalene	< 1.0		µg/l	1.0						
n-Propylbenzene	< 1.0		µg/l	1.0						
Styrene	< 1.0		µg/l	1.0						
1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201950 - SW846 5030 Water MS										
Blank (1201950-BLK1)					Prepared & Analyzed: 25-Jan-12					
1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5						
Tetrachloroethene	< 1.0		µg/l	1.0						
Toluene	< 1.0		µg/l	1.0						
1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0						
1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0						
1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0						
1,1,1-Trichloroethane	< 1.0		µg/l	1.0						
1,1,2-Trichloroethane	< 1.0		µg/l	1.0						
Trichloroethene	< 1.0		µg/l	1.0						
Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0						
1,2,3-Trichloropropane	< 1.0		µg/l	1.0						
1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0						
1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0						
Vinyl chloride	< 1.0		µg/l	1.0						
m,p-Xylene	< 2.0		µg/l	2.0						
o-Xylene	< 1.0		µg/l	1.0						
Tetrahydrofuran	< 2.0		µg/l	2.0						
Ethyl ether	< 1.0		µg/l	1.0						
Tert-amyl methyl ether	< 1.0		µg/l	1.0						
Ethyl tert-butyl ether	< 1.0		µg/l	1.0						
Di-isopropyl ether	< 1.0		µg/l	1.0						
Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0						
1,4-Dioxane	< 20.0		µg/l	20.0						
trans-1,4-Dichloro-2-butene	< 5.0		µg/l	5.0						
Ethanol	< 400		µg/l	400						
Surrogate: 4-Bromofluorobenzene	*45.1*		µg/l		*50.0*		*90*	*70-130*		
Surrogate: Toluene-d8	*50.6*		µg/l		*50.0*		*101*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*53.0*		µg/l		*50.0*		*106*	*70-130*		
Surrogate: Dibromofluoromethane	*52.8*		µg/l		*50.0*		*106*	*70-130*		
LCS (1201950-BS1)					Prepared & Analyzed: 25-Jan-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**22.5**		µg/l		20.0		112	70-130		
Acetone	**15.9**		µg/l		20.0		79	70-130		
Acrylonitrile	**17.7**		µg/l		20.0		88	70-130		
Benzene	**20.5**		µg/l		20.0		102	70-130		
Bromobenzene	**25.0**		µg/l		20.0		125	70-130		
Bromochloromethane	**20.8**		µg/l		20.0		104	70-130		
Bromodichloromethane	**23.5**		µg/l		20.0		117	70-130		
Bromoform	**27.1**	QC2	µg/l		20.0		136	70-130		
Bromomethane	**25.1**		µg/l		20.0		126	70-130		
2-Butanone (MEK)	**20.6**		µg/l		20.0		103	70-130		
n-Butylbenzene	**22.5**		µg/l		20.0		113	70-130		
sec-Butylbenzene	**24.9**		µg/l		20.0		124	70-130		
tert-Butylbenzene	**25.1**		µg/l		20.0		125	70-130		
Carbon disulfide	**20.8**		µg/l		20.0		104	70-130		
Carbon tetrachloride	**27.4**	QM9	µg/l		20.0		137	70-130		
Chlorobenzene	**20.7**		µg/l		20.0		103	70-130		
Chloroethane	**20.8**		µg/l		20.0		104	70-130		
Chloroform	**22.9**		µg/l		20.0		115	70-130		
Chloromethane	**20.3**		µg/l		20.0		102	70-130		
2-Chlorotoluene	**22.6**		µg/l		20.0		113	70-130		
4-Chlorotoluene	**23.2**		µg/l		20.0		116	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201950 - SW846 5030 Water MS										
LCS (1201950-BS1)					Prepared & Analyzed: 25-Jan-12					
1,2-Dibromo-3-chloropropane	**20.1**		µg/l		20.0		101	70-130		
Dibromochloromethane	**25.9**		µg/l		20.0		129	70-130		
1,2-Dibromoethane (EDB)	**21.1**		µg/l		20.0		105	70-130		
Dibromomethane	**21.3**		µg/l		20.0		106	70-130		
1,2-Dichlorobenzene	**21.7**		µg/l		20.0		108	70-130		
1,3-Dichlorobenzene	**24.7**		µg/l		20.0		124	70-130		
1,4-Dichlorobenzene	**20.4**		µg/l		20.0		102	70-130		
Dichlorodifluoromethane (Freon12)	**21.6**		µg/l		20.0		108	70-130		
1,1-Dichloroethane	**21.6**		µg/l		20.0		108	70-130		
1,2-Dichloroethane	**21.3**		µg/l		20.0		106	70-130		
1,1-Dichloroethene	**21.4**		µg/l		20.0		107	70-130		
cis-1,2-Dichloroethene	**21.7**		µg/l		20.0		108	70-130		
trans-1,2-Dichloroethene	**19.5**		µg/l		20.0		97	70-130		
1,2-Dichloropropane	**21.7**		µg/l		20.0		108	70-130		
1,3-Dichloropropane	**20.6**		µg/l		20.0		103	70-130		
2,2-Dichloropropane	**22.4**		µg/l		20.0		112	70-130		
1,1-Dichloropropene	**22.5**		µg/l		20.0		112	70-130		
cis-1,3-Dichloropropene	**22.3**		µg/l		20.0		112	70-130		
trans-1,3-Dichloropropene	**24.8**		µg/l		20.0		124	70-130		
Ethylbenzene	**22.8**		µg/l		20.0		114	70-130		
Hexachlorobutadiene	**29.7**	QC2	µg/l		20.0		148	70-130		
2-Hexanone (MBK)	**19.7**		µg/l		20.0		99	70-130		
Isopropylbenzene	**23.3**		µg/l		20.0		116	70-130		
4-Isopropyltoluene	**21.7**		µg/l		20.0		109	70-130		
Methyl tert-butyl ether	**23.0**		µg/l		20.0		115	70-130		
4-Methyl-2-pentanone (MIBK)	**22.0**		µg/l		20.0		110	70-130		
Methylene chloride	**18.8**		µg/l		20.0		94	70-130		
Naphthalene	**19.7**		µg/l		20.0		98	70-130		
n-Propylbenzene	**24.1**		µg/l		20.0		121	70-130		
Styrene	**23.0**		µg/l		20.0		115	70-130		
1,1,1,2-Tetrachloroethane	**26.1**		µg/l		20.0		130	70-130		
1,1,2,2-Tetrachloroethane	**22.1**		µg/l		20.0		110	70-130		
Tetrachloroethene	**25.7**		µg/l		20.0		128	70-130		
Toluene	**21.2**		µg/l		20.0		106	70-130		
1,2,3-Trichlorobenzene	**27.0**	QM9	µg/l		20.0		135	70-130		
1,2,4-Trichlorobenzene	**24.2**		µg/l		20.0		121	70-130		
1,3,5-Trichlorobenzene	**25.5**		µg/l		20.0		128	70-130		
1,1,1-Trichloroethane	**24.6**		µg/l		20.0		123	70-130		
1,1,2-Trichloroethane	**20.1**		µg/l		20.0		100	70-130		
Trichloroethene	**20.6**		µg/l		20.0		103	70-130		
Trichlorofluoromethane (Freon 11)	**21.7**		µg/l		20.0		108	70-130		
1,2,3-Trichloropropane	**20.7**		µg/l		20.0		103	70-130		
1,2,4-Trimethylbenzene	**24.3**		µg/l		20.0		122	70-130		
1,3,5-Trimethylbenzene	**24.3**		µg/l		20.0		122	70-130		
Vinyl chloride	**25.0**		µg/l		20.0		125	70-130		
m,p-Xylene	**46.4**		µg/l		40.0		116	70-130		
o-Xylene	**23.4**		µg/l		20.0		117	70-130		
Tetrahydrofuran	**18.6**		µg/l		20.0		93	70-130		
Ethyl ether	**19.8**		µg/l		20.0		99	70-130		
Tert-amyl methyl ether	**19.1**		µg/l		20.0		96	70-130		
Ethyl tert-butyl ether	**20.3**		µg/l		20.0		102	70-130		
Di-isopropyl ether	**20.9**		µg/l		20.0		104	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201950 - SW846 5030 Water MS										
LCS (1201950-BS1)					Prepared & Analyzed: 25-Jan-12					
Tert-Butanol / butyl alcohol	**161**		µg/l		200		81	70-130		
1,4-Dioxane	**191**		µg/l		200		95	70-130		
trans-1,4-Dichloro-2-butene	**25.5**		µg/l		20.0		128	70-130		
Ethanol	**367**		µg/l		400		92	70-130		
Surrogate: 4-Bromofluorobenzene	*49.9*		µg/l		*50.0*		*100*	*70-130*		
Surrogate: Toluene-d8	*50.3*		µg/l		*50.0*		*101*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*51.4*		µg/l		*50.0*		*103*	*70-130*		
Surrogate: Dibromofluoromethane	*50.7*		µg/l		*50.0*		*101*	*70-130*		
LCS Dup (1201950-BSD1)					Prepared & Analyzed: 25-Jan-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**20.1**		µg/l		20.0		100	70-130	11	25
Acetone	**15.7**		µg/l		20.0		79	70-130	0.9	50
Acrylonitrile	**17.0**		µg/l		20.0		85	70-130	4	25
Benzene	**19.3**		µg/l		20.0		97	70-130	6	25
Bromobenzene	**23.7**		µg/l		20.0		119	70-130	5	25
Bromochloromethane	**21.0**		µg/l		20.0		105	70-130	1	25
Bromodichloromethane	**21.7**		µg/l		20.0		108	70-130	8	25
Bromoform	**26.8**	QC2	µg/l		20.0		134	70-130	1	25
Bromomethane	**23.6**		µg/l		20.0		118	70-130	6	50
2-Butanone (MEK)	**19.6**		µg/l		20.0		98	70-130	5	50
n-Butylbenzene	**19.0**		µg/l		20.0		95	70-130	17	25
sec-Butylbenzene	**22.4**		µg/l		20.0		112	70-130	11	25
tert-Butylbenzene	**22.9**		µg/l		20.0		115	70-130	9	25
Carbon disulfide	**18.0**		µg/l		20.0		90	70-130	14	25
Carbon tetrachloride	**24.0**		µg/l		20.0		120	70-130	13	25
Chlorobenzene	**19.7**		µg/l		20.0		98	70-130	5	25
Chloroethane	**18.8**		µg/l		20.0		94	70-130	10	50
Chloroform	**22.2**		µg/l		20.0		111	70-130	3	25
Chloromethane	**19.0**		µg/l		20.0		95	70-130	7	25
2-Chlorotoluene	**20.3**		µg/l		20.0		102	70-130	11	25
4-Chlorotoluene	**21.1**		µg/l		20.0		105	70-130	10	25
1,2-Dibromo-3-chloropropane	**21.2**		µg/l		20.0		106	70-130	5	25
Dibromochloromethane	**24.3**		µg/l		20.0		121	70-130	6	50
1,2-Dibromoethane (EDB)	**20.0**		µg/l		20.0		100	70-130	5	25
Dibromomethane	**20.2**		µg/l		20.0		101	70-130	5	25
1,2-Dichlorobenzene	**19.4**		µg/l		20.0		97	70-130	11	25
1,3-Dichlorobenzene	**23.0**		µg/l		20.0		115	70-130	7	25
1,4-Dichlorobenzene	**18.3**		µg/l		20.0		92	70-130	11	25
Dichlorodifluoromethane (Freon12)	**20.1**		µg/l		20.0		100	70-130	7	50
1,1-Dichloroethane	**19.9**		µg/l		20.0		99	70-130	8	25
1,2-Dichloroethane	**19.7**		µg/l		20.0		98	70-130	8	25
1,1-Dichloroethene	**19.6**		µg/l		20.0		98	70-130	9	25
cis-1,2-Dichloroethene	**20.4**		µg/l		20.0		102	70-130	6	25
trans-1,2-Dichloroethene	**17.7**		µg/l		20.0		89	70-130	9	25
1,2-Dichloropropane	**19.6**		µg/l		20.0		98	70-130	10	25
1,3-Dichloropropane	**19.4**		µg/l		20.0		97	70-130	6	25
2,2-Dichloropropane	**20.0**		µg/l		20.0		100	70-130	11	25
1,1-Dichloropropene	**20.2**		µg/l		20.0		101	70-130	11	25
cis-1,3-Dichloropropene	**21.0**		µg/l		20.0		105	70-130	6	25
trans-1,3-Dichloropropene	**23.3**		µg/l		20.0		116	70-130	6	25
Ethylbenzene	**20.8**		µg/l		20.0		104	70-130	9	25
Hexachlorobutadiene	**26.2**	QC2	µg/l		20.0		131	70-130	12	50

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201950 - SW846 5030 Water MS										
LCS Dup (1201950-BSD1)					Prepared & Analyzed: 25-Jan-12					
2-Hexanone (MBK)	**19.8**		µg/l		20.0		99	70-130	0.7	25
Isopropylbenzene	**21.4**		µg/l		20.0		107	70-130	9	25
4-Isopropyltoluene	**19.4**		µg/l		20.0		97	70-130	11	25
Methyl tert-butyl ether	**22.4**		µg/l		20.0		112	70-130	2	25
4-Methyl-2-pentanone (MIBK)	**21.2**		µg/l		20.0		106	70-130	4	50
Methylene chloride	**18.1**		µg/l		20.0		90	70-130	4	25
Naphthalene	**19.0**		µg/l		20.0		95	70-130	3	25
n-Propylbenzene	**21.6**		µg/l		20.0		108	70-130	11	25
Styrene	**21.4**		µg/l		20.0		107	70-130	7	25
1,1,1,2-Tetrachloroethane	**24.8**		µg/l		20.0		124	70-130	5	25
1,1,2,2-Tetrachloroethane	**20.4**		µg/l		20.0		102	70-130	8	25
Tetrachloroethene	**23.6**		µg/l		20.0		118	70-130	9	25
Toluene	**19.8**		µg/l		20.0		99	70-130	7	25
1,2,3-Trichlorobenzene	**24.6**		µg/l		20.0		123	70-130	10	25
1,2,4-Trichlorobenzene	**22.5**		µg/l		20.0		113	70-130	7	25
1,3,5-Trichlorobenzene	**22.9**		µg/l		20.0		114	70-130	11	25
1,1,1-Trichloroethane	**22.4**		µg/l		20.0		112	70-130	9	25
1,1,2-Trichloroethane	**19.3**		µg/l		20.0		96	70-130	4	25
Trichloroethene	**17.7**		µg/l		20.0		88	70-130	15	25
Trichlorofluoromethane (Freon 11)	**19.7**		µg/l		20.0		99	70-130	10	50
1,2,3-Trichloropropane	**20.1**		µg/l		20.0		101	70-130	3	25
1,2,4-Trimethylbenzene	**22.2**		µg/l		20.0		111	70-130	9	25
1,3,5-Trimethylbenzene	**21.9**		µg/l		20.0		109	70-130	11	25
Vinyl chloride	**21.5**		µg/l		20.0		107	70-130	15	25
m,p-Xylene	**43.2**		µg/l		40.0		108	70-130	7	25
o-Xylene	**22.0**		µg/l		20.0		110	70-130	6	25
Tetrahydrofuran	**20.4**		µg/l		20.0		102	70-130	9	25
Ethyl ether	**18.9**		µg/l		20.0		94	70-130	5	50
Tert-amyl methyl ether	**18.0**		µg/l		20.0		90	70-130	6	25
Ethyl tert-butyl ether	**19.4**		µg/l		20.0		97	70-130	4	25
Di-isopropyl ether	**19.1**		µg/l		20.0		95	70-130	9	25
Tert-Butanol / butyl alcohol	**164**		µg/l		200		82	70-130	2	25
1,4-Dioxane	**193**		µg/l		200		96	70-130	1	25
trans-1,4-Dichloro-2-butene	**22.9**		µg/l		20.0		115	70-130	11	25
Ethanol	**365**		µg/l		400		91	70-130	0.4	30
Surrogate: 4-Bromofluorobenzene	*50.3*		µg/l		*50.0*		*101*	*70-130*		
Surrogate: Toluene-d8	*50.1*		µg/l		*50.0*		*100*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*50.0*		µg/l		*50.0*		*100*	*70-130*		
Surrogate: Dibromofluoromethane	*50.6*		µg/l		*50.0*		*101*	*70-130*		
Batch 1202338 - VPH - EPA 5030B										
Blank (1202338-BLK1)					Prepared & Analyzed: 31-Jan-12					
C5-C8 Aliphatic Hydrocarbons	< 75.0		µg/l	75.0						
C9-C12 Aliphatic Hydrocarbons	< 25.0		µg/l	25.0						
C9-C10 Aromatic Hydrocarbons	< 25.0		µg/l	25.0						
Unadjusted C5-C8 Aliphatic Hydrocarbons	< 75.0		µg/l	75.0						
Unadjusted C9-C12 Aliphatic Hydrocarbons	< 25.0		µg/l	25.0						
Benzene	< 5.0		µg/l	5.0						
Ethylbenzene	< 5.0		µg/l	5.0						
Methyl tert-butyl ether	< 5.0		µg/l	5.0						
Naphthalene	< 5.0		µg/l	5.0						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1202338 - VPH - EPA 5030B										
Blank (1202338-BLK1)					Prepared & Analyzed: 31-Jan-12					
Toluene	< 5.0		µg/l	5.0						
m,p-Xylene	< 10.0		µg/l	10.0						
o-Xylene	< 5.0		µg/l	5.0						
2-Methylpentane	< 5.0		µg/l	5.0						
n-Nonane	< 10.0		µg/l	10.0						
n-Pentane	< 10.0		µg/l	10.0						
1,2,4-Trimethylbenzene	< 5.0		µg/l	5.0						
2,2,4-Trimethylpentane	< 5.0		µg/l	5.0						
n-Butylcyclohexane	< 5.0		µg/l	5.0						
n-Decane	< 5.0		µg/l	5.0						
Surrogate: 2,5-Dibromotoluene (FID)	*46.3*		µg/l		*50.0*		*93*	*70-130*		
Surrogate: 2,5-Dibromotoluene (PID)	*42.5*		µg/l		*50.0*		*85*	*70-130*		
LCS (1202338-BS1)					Prepared & Analyzed: 31-Jan-12					
C5-C8 Aliphatic Hydrocarbons	**66.0**		µg/l		60.0		110	70-130		
C9-C12 Aliphatic Hydrocarbons	**60.6**		µg/l		60.0		101	70-130		
C9-C10 Aromatic Hydrocarbons	**17.3**		µg/l		20.0		87	70-130		
Unadjusted C5-C8 Aliphatic Hydrocarbons	**212**		µg/l		200		106	70-130		
Unadjusted C9-C12 Aliphatic Hydrocarbons	**78.0**		µg/l		80.0		97	70-130		
Benzene	**22.7**		µg/l		20.0		113	70-130		
Ethylbenzene	**19.7**		µg/l		20.0		99	70-130		
Methyl tert-butyl ether	**23.0**		µg/l		20.0		115	70-130		
Naphthalene	**19.1**		µg/l		20.0		96	70-130		
Toluene	**21.5**		µg/l		20.0		107	70-130		
m,p-Xylene	**39.1**		µg/l		40.0		98	70-130		
o-Xylene	**19.8**		µg/l		20.0		99	70-130		
2-Methylpentane	**21.8**		µg/l		20.0		109	70-130		
n-Nonane	**19.8**		µg/l		20.0		99	70-130		
n-Pentane	**20.3**		µg/l		20.0		101	70-130		
1,2,4-Trimethylbenzene	**18.8**		µg/l		20.0		94	70-130		
2,2,4-Trimethylpentane	**22.9**		µg/l		20.0		115	70-130		
n-Butylcyclohexane	**18.7**		µg/l		20.0		94	70-130		
n-Decane	**16.1**		µg/l		20.0		80	70-130		
Surrogate: 2,5-Dibromotoluene (FID)	*47.1*		µg/l		*50.0*		*94*	*70-130*		
Surrogate: 2,5-Dibromotoluene (PID)	*39.8*		µg/l		*50.0*		*80*	*70-130*		
LCS Dup (1202338-BSD1)					Prepared & Analyzed: 31-Jan-12					
C5-C8 Aliphatic Hydrocarbons	**69.9**		µg/l		60.0		116	70-130	6	25
C9-C12 Aliphatic Hydrocarbons	**60.3**		µg/l		60.0		101	70-130	0.5	25
C9-C10 Aromatic Hydrocarbons	**16.9**		µg/l		20.0		85	70-130	2	25
Unadjusted C5-C8 Aliphatic Hydrocarbons	**206**		µg/l		200		103	70-130	3	25
Unadjusted C9-C12 Aliphatic Hydrocarbons	**77.2**		µg/l		80.0		97	70-130	0.9	25
Benzene	**19.7**		µg/l		20.0		99	70-130	14	25
Ethylbenzene	**19.3**		µg/l		20.0		97	70-130	2	25
Methyl tert-butyl ether	**19.1**		µg/l		20.0		96	70-130	18	25
Naphthalene	**18.4**		µg/l		20.0		92	70-130	4	25
Toluene	**20.0**		µg/l		20.0		100	70-130	7	25
m,p-Xylene	**38.5**		µg/l		40.0		96	70-130	2	25
o-Xylene	**19.7**		µg/l		20.0		99	70-130	0.6	25
2-Methylpentane	**17.8**		µg/l		20.0		89	70-130	20	25
n-Nonane	**17.1**		µg/l		20.0		85	70-130	15	25

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1202338 - VPH - EPA 5030B										
LCS Dup (1202338-BSD1)					Prepared & Analyzed: 31-Jan-12					
n-Pentane	**16.4**		µg/l		20.0		82	70-130	21	25
1,2,4-Trimethylbenzene	**18.7**		µg/l		20.0		94	70-130	0.4	25
2,2,4-Trimethylpentane	**19.1**		µg/l		20.0		95	70-130	18	25
n-Butylcyclohexane	**16.8**		µg/l		20.0		84	70-130	11	25
n-Decane	**14.3**		µg/l		20.0		71	70-130	12	25
Surrogate: 2,5-Dibromotoluene (FID)	*40.3*		µg/l		*50.0*		*81*	*70-130*		
Surrogate: 2,5-Dibromotoluene (PID)	*35.5*		µg/l		*50.0*		*71*	*70-130*		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201600 - SW846 3510C										
Blank (1201600-BLK1)					Prepared & Analyzed: 20-Jan-12					
C9-C18 Aliphatic Hydrocarbons	< 50.0		µg/l	50.0						
C19-C36 Aliphatic Hydrocarbons	< 50.0		µg/l	50.0						
C11-C22 Aromatic Hydrocarbons	< 50.0		µg/l	50.0						
Unadjusted C11-C22 Aromatic Hydrocarbons	< 50.0		µg/l	50.0						
Total Petroleum Hydrocarbons	< 50.0		µg/l	50.0						
Unadjusted Total Petroleum Hydrocarbons	< 50.0		µg/l	50.0						
Naphthalene	< 2.50		µg/l	2.50						
2-Methylnaphthalene	< 2.50		µg/l	2.50						
Acenaphthylene	< 2.50		µg/l	2.50						
Acenaphthene	< 2.50		µg/l	2.50						
Fluorene	< 2.50		µg/l	2.50						
Phenanthrene	< 2.50		µg/l	2.50						
Anthracene	< 2.50		µg/l	2.50						
Fluoranthene	< 2.50		µg/l	2.50						
Pyrene	< 2.50		µg/l	2.50						
Benzo (a) anthracene	< 2.50		µg/l	2.50						
Chrysene	< 2.50		µg/l	2.50						
Benzo (b) fluoranthene	< 2.50		µg/l	2.50						
Benzo (k) fluoranthene	< 2.50		µg/l	2.50						
Benzo (a) pyrene	< 2.50		µg/l	2.50						
Indeno (1,2,3-cd) pyrene	< 2.50		µg/l	2.50						
Dibenzo (a,h) anthracene	< 2.50		µg/l	2.50						
Benzo (g,h,i) perylene	< 2.50		µg/l	2.50						
n-Nonane (C9)	< 2.50		µg/l	2.50						
n-Decane	< 2.50		µg/l	2.50						
n-Dodecane	< 2.50		µg/l	2.50						
n-Tetradecane	< 2.50		µg/l	2.50						
n-Hexadecane	< 2.50		µg/l	2.50						
n-Octadecane	< 2.50		µg/l	2.50						
n-Nonadecane	< 2.50		µg/l	2.50						
n-Eicosane	< 2.50		µg/l	2.50						
n-Docosane	< 2.50		µg/l	2.50						
n-Tetracosane	< 2.50		µg/l	2.50						
n-Hexacosane	< 2.50		µg/l	2.50						
n-Octacosane	< 2.50		µg/l	2.50						
n-Triacontane	< 2.50		µg/l	2.50						
n-Hexatriacontane	< 2.50		µg/l	2.50						
Naphthalene (aliphatic fraction)	**0.00**		µg/l							
2-Methylnaphthalene (aliphatic fraction)	**0.00**		µg/l							
Surrogate: 1-Chlorooctadecane	*67.4*		µg/l		*50.0*		*135*	*40-140*		
Surrogate: Ortho-Terphenyl	*30.2*		µg/l		*50.0*		*60*	*40-140*		
Surrogate: 2-Fluorobiphenyl	*22.2*		µg/l		*40.0*		*56*	*40-140*		
LCS (1201600-BS1)					Prepared & Analyzed: 20-Jan-12					
C9-C18 Aliphatic Hydrocarbons	**746**		µg/l	50.0	1200		62	40-140		
C19-C36 Aliphatic Hydrocarbons	**1260**		µg/l	50.0	1600		79	40-140		
C11-C22 Aromatic Hydrocarbons	**1000**		µg/l	50.0	1700		59	40-140		
Naphthalene	**45.5**		µg/l	2.50	100		46	40-140		
2-Methylnaphthalene	**48.0**		µg/l	2.50	100		48	40-140		
Acenaphthylene	**54.4**		µg/l	2.50	100		54	40-140		
Acenaphthene	**56.2**		µg/l	2.50	100		56	40-140		
Fluorene	**60.0**		µg/l	2.50	100		60	40-140		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201600 - SW846 3510C										
LCS (1201600-BS1)					Prepared & Analyzed: 20-Jan-12					
Phenanthrene	**67.5**		µg/l	2.50	100		67	40-140		
Anthracene	**65.2**		µg/l	2.50	100		65	40-140		
Fluoranthene	**71.3**		µg/l	2.50	100		71	40-140		
Pyrene	**70.4**		µg/l	2.50	100		70	40-140		
Benzo (a) anthracene	**73.7**		µg/l	2.50	100		74	40-140		
Chrysene	**74.0**		µg/l	2.50	100		74	40-140		
Benzo (b) fluoranthene	**72.4**		µg/l	2.50	100		72	40-140		
Benzo (k) fluoranthene	**72.0**		µg/l	2.50	100		72	40-140		
Benzo (a) pyrene	**68.9**		µg/l	2.50	100		69	40-140		
Indeno (1,2,3-cd) pyrene	**71.9**		µg/l	2.50	100		72	40-140		
Dibenzo (a,h) anthracene	**71.3**		µg/l	2.50	100		71	40-140		
Benzo (g,h,i) perylene	**70.7**		µg/l	2.50	100		71	40-140		
n-Nonane (C9)	**66.6**		µg/l	2.50	200		33	30-140		
n-Decane	**84.8**		µg/l	2.50	200		42	40-140		
n-Dodecane	**104**		µg/l	2.50	200		52	40-140		
n-Tetradecane	**122**		µg/l	2.50	200		61	40-140		
n-Hexadecane	**142**		µg/l	2.50	200		71	40-140		
n-Octadecane	**159**		µg/l	2.50	200		80	40-140		
n-Nonadecane	**167**		µg/l	2.50	200		83	40-140		
n-Eicosane	**172**		µg/l	2.50	200		86	40-140		
n-Docosane	**180**		µg/l	2.50	200		90	40-140		
n-Tetracosane	**179**		µg/l	2.50	200		90	40-140		
n-Hexacosane	**181**		µg/l	2.50	200		91	40-140		
n-Octacosane	**184**		µg/l	2.50	200		92	40-140		
n-Triacontane	**178**		µg/l	2.50	200		89	40-140		
n-Hexatriacontane	**176**		µg/l	2.50	200		88	40-140		
Naphthalene (aliphatic fraction)	**0.00**		µg/l					0-200		
2-Methylnaphthalene (aliphatic fraction)	**0.00**		µg/l					0-200		
Surrogate: 1-Chlorooctadecane	*39.7*		µg/l		*50.0*		*79*	*40-140*		
Surrogate: Ortho-Terphenyl	*34.9*		µg/l		*50.0*		*70*	*40-140*		
Surrogate: 2-Fluorobiphenyl	*29.0*		µg/l		*40.0*		*73*	*40-140*		
Naphthalene Breakthrough	0.00		%					0-5		
2-Methylnaphthalene Breakthrough	0.00		%					0-5		
LCS (1201600-BS2)					Prepared: 20-Jan-12 Analyzed: 24-Jan-12					
C9-C18 Aliphatic Hydrocarbons	**307**		µg/l	50.0	600		51	40-140		
C19-C36 Aliphatic Hydrocarbons	**394**		µg/l	50.0	800		49	40-140		
C11-C22 Aromatic Hydrocarbons	**1290**		µg/l	50.0	1700		76	40-140		
Naphthalene	**73.1**		µg/l	2.50	100		73	40-140		
2-Methylnaphthalene	**73.6**		µg/l	2.50	100		74	40-140		
Acenaphthylene	**77.0**		µg/l	2.50	100		77	40-140		
Acenaphthene	**79.1**		µg/l	2.50	100		79	40-140		
Fluorene	**84.1**		µg/l	2.50	100		84	40-140		
Phenanthrene	**88.4**		µg/l	2.50	100		88	40-140		
Anthracene	**84.0**		µg/l	2.50	100		84	40-140		
Fluoranthene	**93.1**		µg/l	2.50	100		93	40-140		
Pyrene	**91.8**		µg/l	2.50	100		92	40-140		
Benzo (a) anthracene	**98.1**		µg/l	2.50	100		98	40-140		
Chrysene	**93.3**		µg/l	2.50	100		93	40-140		
Benzo (b) fluoranthene	**94.3**		µg/l	2.50	100		94	40-140		
Benzo (k) fluoranthene	**87.0**		µg/l	2.50	100		87	40-140		
Benzo (a) pyrene	**83.9**		µg/l	2.50	100		84	40-140		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201600 - SW846 3510C										
LCS (1201600-BS2)					Prepared: 20-Jan-12 Analyzed: 24-Jan-12					
Indeno (1,2,3-cd) pyrene	**89.9**		µg/l	2.50	100		90	40-140		
Dibenzo (a,h) anthracene	**92.4**		µg/l	2.50	100		92	40-140		
Benzo (g,h,i) perylene	**87.6**		µg/l	2.50	100		88	40-140		
n-Nonane (C9)	**37.2**		µg/l	2.50	100		37	30-140		
n-Decane	**42.4**		µg/l	2.50	100		42	40-140		
n-Dodecane	**45.8**		µg/l	2.50	100		46	40-140		
n-Tetradecane	**51.4**		µg/l	2.50	100		51	40-140		
n-Hexadecane	**57.3**		µg/l	2.50	100		57	40-140		
n-Octadecane	**61.3**		µg/l	2.50	100		61	40-140		
n-Nonadecane	**62.2**		µg/l	2.50	100		62	40-140		
n-Eicosane	**62.9**		µg/l	2.50	100		63	40-140		
n-Docosane	**63.6**		µg/l	2.50	100		64	40-140		
n-Tetracosane	**62.4**		µg/l	2.50	100		62	40-140		
n-Hexacosane	**62.5**		µg/l	2.50	100		63	40-140		
n-Octacosane	**63.2**		µg/l	2.50	100		63	40-140		
n-Triacontane	**60.8**		µg/l	2.50	100		61	40-140		
n-Hexatriacontane	**57.8**		µg/l	2.50	100		58	40-140		
Naphthalene (aliphatic fraction)	**0.00**		µg/l					0-200		
2-Methylnaphthalene (aliphatic fraction)	**0.00**		µg/l					0-200		
Surrogate: 1-Chlorooctadecane	*30.7*		µg/l		*50.0*		*61*	*40-140*		
Surrogate: Ortho-Terphenyl	*38.3*		µg/l		*50.0*		*77*	*40-140*		
Surrogate: 2-Fluorobiphenyl	*32.1*		µg/l		*40.0*		*80*	*40-140*		
Naphthalene Breakthrough	0.00		%					0-5		
2-Methylnaphthalene Breakthrough	0.00		%					0-5		
LCS Dup (1201600-BSD1)					Prepared & Analyzed: 20-Jan-12					
C9-C18 Aliphatic Hydrocarbons	**827**		µg/l	50.0	1200		69	40-140	10	25
C19-C36 Aliphatic Hydrocarbons	**1570**		µg/l	50.0	1600		98	40-140	22	25
C11-C22 Aromatic Hydrocarbons	**940**		µg/l	50.0	1700		55	40-140	6	25
Naphthalene	**40.0**		µg/l	2.50	100		40	40-140	13	25
2-Methylnaphthalene	**40.4**		µg/l	2.50	100		40	40-140	17	25
Acenaphthylene	**48.8**		µg/l	2.50	100		49	40-140	11	25
Acenaphthene	**50.5**		µg/l	2.50	100		50	40-140	11	25
Fluorene	**56.5**		µg/l	2.50	100		56	40-140	6	25
Phenanthrene	**64.0**		µg/l	2.50	100		64	40-140	5	25
Anthracene	**63.2**		µg/l	2.50	100		63	40-140	3	25
Fluoranthene	**68.7**		µg/l	2.50	100		69	40-140	4	25
Pyrene	**67.4**		µg/l	2.50	100		67	40-140	4	25
Benzo (a) anthracene	**71.3**		µg/l	2.50	100		71	40-140	3	25
Chrysene	**67.4**		µg/l	2.50	100		67	40-140	9	25
Benzo (b) fluoranthene	**70.8**		µg/l	2.50	100		71	40-140	2	25
Benzo (k) fluoranthene	**66.5**		µg/l	2.50	100		67	40-140	8	25
Benzo (a) pyrene	**62.8**		µg/l	2.50	100		63	40-140	9	25
Indeno (1,2,3-cd) pyrene	**65.5**		µg/l	2.50	100		66	40-140	9	25
Dibenzo (a,h) anthracene	**65.5**		µg/l	2.50	100		66	40-140	8	25
Benzo (g,h,i) perylene	**65.3**		µg/l	2.50	100		65	40-140	8	25
n-Nonane (C9)	**71.6**		µg/l	2.50	200		36	30-140	7	25
n-Decane	**90.9**		µg/l	2.50	200		45	40-140	7	25
n-Dodecane	**111**		µg/l	2.50	200		55	40-140	6	25
n-Tetradecane	**138**		µg/l	2.50	200		69	40-140	12	25
n-Hexadecane	**165**		µg/l	2.50	200		82	40-140	14	25
n-Octadecane	**187**		µg/l	2.50	200		93	40-140	16	25

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201600 - SW846 3510C										
LCS Dup (1201600-BSD1)					Prepared & Analyzed: 20-Jan-12					
n-Nonadecane	**197**		µg/l	2.50	200		99	40-140	17	25
n-Eicosane	**206**		µg/l	2.50	200		103	40-140	18	25
n-Docosane	**220**		µg/l	2.50	200		110	40-140	20	25
n-Tetracosane	**222**		µg/l	2.50	200		111	40-140	21	25
n-Hexacosane	**226**		µg/l	2.50	200		113	40-140	22	25
n-Octacosane	**230**		µg/l	2.50	200		115	40-140	22	25
n-Triacontane	**221**		µg/l	2.50	200		110	40-140	21	25
n-Hexatriacontane	**212**		µg/l	2.50	200		106	40-140	19	25
Naphthalene (aliphatic fraction)	**0.00**		µg/l					0-200		200
2-Methylnaphthalene (aliphatic fraction)	**0.00**		µg/l					0-200		200
Surrogate: 1-Chlorooctadecane	*50.1*		µg/l		*50.0*		*100*	*40-140*		
Surrogate: Ortho-Terphenyl	*32.4*		µg/l		*50.0*		*65*	*40-140*		
Surrogate: 2-Fluorobiphenyl	*26.6*		µg/l		*40.0*		*66*	*40-140*		
Naphthalene Breakthrough	0.00		%					0-5		
2-Methylnaphthalene Breakthrough	0.00		%					0-5		
Duplicate (1201600-DUP1)			**Source: SB42698-01**		Prepared: 20-Jan-12 Analyzed: 27-Jan-12					
C9-C18 Aliphatic Hydrocarbons	< 108		µg/l	108		BRL				50
C19-C36 Aliphatic Hydrocarbons	< 108		µg/l	108		BRL				50
C11-C22 Aromatic Hydrocarbons	< 108		µg/l	108		BRL				50
Unadjusted C11-C22 Aromatic Hydrocarbons	< 108		µg/l	108		BRL				50
Total Petroleum Hydrocarbons	< 108		µg/l	108		BRL				50
Unadjusted Total Petroleum Hydrocarbons	< 108		µg/l	108		BRL				50
Naphthalene	< 5.38		µg/l	5.38		BRL				50
2-Methylnaphthalene	< 5.38		µg/l	5.38		BRL				50
Acenaphthylene	< 5.38		µg/l	5.38		BRL				50
Acenaphthene	< 5.38		µg/l	5.38		BRL				50
Fluorene	< 5.38		µg/l	5.38		BRL				50
Phenanthrene	< 5.38		µg/l	5.38		BRL				50
Anthracene	< 5.38		µg/l	5.38		BRL				50
Fluoranthene	< 5.38		µg/l	5.38		BRL				50
Pyrene	< 5.38		µg/l	5.38		BRL				50
Benzo (a) anthracene	< 5.38		µg/l	5.38		BRL				50
Chrysene	< 5.38		µg/l	5.38		BRL				50
Benzo (b) fluoranthene	< 5.38		µg/l	5.38		BRL				50
Benzo (k) fluoranthene	< 5.38		µg/l	5.38		BRL				50
Benzo (a) pyrene	< 5.38		µg/l	5.38		BRL				50
Indeno (1,2,3-cd) pyrene	< 5.38		µg/l	5.38		BRL				50
Dibenzo (a,h) anthracene	< 5.38		µg/l	5.38		BRL				50
Benzo (g,h,i) perylene	< 5.38		µg/l	5.38		BRL				50
Surrogate: 1-Chlorooctadecane	*22.3*		µg/l		*53.8*		*41*	*40-140*		
Surrogate: Ortho-Terphenyl	*28.2*		µg/l		*53.8*		*52*	*40-140*		
Surrogate: 2-Fluorobiphenyl	*30.2*		µg/l		*43.0*		*70*	*40-140*		

Soluble Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201966 - SW846 3005A										
Blank (1201966-BLK1)					Prepared: 25-Jan-12 Analyzed: 26-Jan-12					
Selenium	< 0.0150		mg/l	0.0150						
Lead	< 0.0075		mg/l	0.0075						
Chromium	< 0.0050		mg/l	0.0050						
Barium	< 0.0050		mg/l	0.0050						
Cadmium	< 0.0025		mg/l	0.0025						
Silver	< 0.0050		mg/l	0.0050						
Arsenic	< 0.0040		mg/l	0.0040						
LCS (1201966-BS1)					Prepared: 25-Jan-12 Analyzed: 26-Jan-12					
Selenium	**1.25**		mg/l	0.0150	1.25		100	85-115		
Lead	**1.36**		mg/l	0.0075	1.25		109	85-115		
Chromium	**1.36**		mg/l	0.0050	1.25		109	85-115		
Arsenic	**1.32**		mg/l	0.0040	1.25		105	85-115		
Barium	**1.43**		mg/l	0.0050	1.25		114	85-115		
Cadmium	**1.39**		mg/l	0.0025	1.25		111	85-115		
Silver	**1.26**		mg/l	0.0050	1.25		101	85-115		
LCS Dup (1201966-BSD1)					Prepared: 25-Jan-12 Analyzed: 26-Jan-12					
Selenium	**1.28**		mg/l	0.0150	1.25		102	85-115	2	20
Lead	**1.35**		mg/l	0.0075	1.25		108	85-115	0.6	20
Silver	**1.21**		mg/l	0.0050	1.25		97	85-115	4	20
Arsenic	**1.32**		mg/l	0.0040	1.25		106	85-115	0.5	20
Cadmium	**1.37**		mg/l	0.0025	1.25		110	85-115	1	20
Chromium	**1.26**		mg/l	0.0050	1.25		101	85-115	8	20
Barium	**1.31**		mg/l	0.0050	1.25		105	85-115	8	20
Duplicate (1201966-DUP1)			**Source: SB42698-03**		Prepared: 25-Jan-12 Analyzed: 26-Jan-12					
Lead	< 0.0075		mg/l	0.0075		BRL				20
Selenium	**0.0030**	J	mg/l	0.0150		0.0026			16	20
Cadmium	**0.0002**	J,QR8	mg/l	0.0025		0.0004			52	20
Barium	**0.0800**		mg/l	0.0050		0.0795			0.7	20
Arsenic	< 0.0040		mg/l	0.0040		BRL				20
Chromium	< 0.0050		mg/l	0.0050		BRL				20
Silver	< 0.0050		mg/l	0.0050		BRL				20
Matrix Spike (1201966-MS1)			**Source: SB42698-03**		Prepared: 25-Jan-12 Analyzed: 26-Jan-12					
Selenium	**1.30**		mg/l	0.0150	1.25	0.0026	103	75-125		
Lead	**1.34**		mg/l	0.0075	1.25	BRL	107	75-125		
Barium	**1.46**		mg/l	0.0050	1.25	0.0795	110	75-125		
Cadmium	**1.38**		mg/l	0.0025	1.25	0.0004	110	75-125		
Arsenic	**1.35**		mg/l	0.0040	1.25	BRL	108	75-125		
Silver	**1.25**		mg/l	0.0050	1.25	BRL	100	75-125		
Chromium	**1.33**		mg/l	0.0050	1.25	BRL	106	75-125		
Matrix Spike Dup (1201966-MSD1)			**Source: SB42698-03**		Prepared: 25-Jan-12 Analyzed: 26-Jan-12					
Selenium	**1.30**		mg/l	0.0150	1.25	0.0026	104	75-125	0.2	20
Lead	**1.34**		mg/l	0.0075	1.25	BRL	107	75-125	0.2	20
Arsenic	**1.36**		mg/l	0.0040	1.25	BRL	109	75-125	0.1	20
Chromium	**1.30**		mg/l	0.0050	1.25	BRL	104	75-125	2	20
Barium	**1.44**		mg/l	0.0050	1.25	0.0795	109	75-125	1	20
Silver	**1.23**		mg/l	0.0050	1.25	BRL	99	75-125	1	20
Cadmium	**1.38**		mg/l	0.0025	1.25	0.0004	110	75-125	0.3	20
Post Spike (1201966-PS1)			**Source: SB42698-03**		Prepared: 25-Jan-12 Analyzed: 26-Jan-12					
Selenium	**1.24**		mg/l	0.0150	1.25	0.0026	99	80-120		
Lead	**1.29**		mg/l	0.0075	1.25	BRL	103	80-120		
Chromium	**1.27**		mg/l	0.0050	1.25	BRL	102	80-120		

Soluble Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201966 - SW846 3005A										
Post Spike (1201966-PS1)			**Source: SB42698-03**			Prepared: 25-Jan-12 Analyzed: 26-Jan-12				
Cadmium	**1.33**		mg/l	0.0025	1.25	0.0004	107	80-120		
Barium	**1.40**		mg/l	0.0050	1.25	0.0795	106	80-120		
Arsenic	**1.30**		mg/l	0.0040	1.25	BRL	104	80-120		
Silver	**1.24**		mg/l	0.0050	1.25	BRL	100	80-120		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201968 - EPA200/SW7000 Series										
Blank (1201968-BLK1)						Prepared & Analyzed: 25-Jan-12				
Mercury	< 0.00020		mg/l	0.00020						
LCS (1201968-BS1)						Prepared & Analyzed: 25-Jan-12				
Mercury	**0.00467**		mg/l	0.00020	0.00500		93	85-115		
Duplicate (1201968-DUP1)			**Source: SB42698-04**			Prepared & Analyzed: 25-Jan-12				
Mercury	< 0.00020		mg/l	0.00020		BRL				20
Matrix Spike (1201968-MS1)			**Source: SB42698-04**			Prepared & Analyzed: 25-Jan-12				
Mercury	**0.00480**		mg/l	0.00020	0.00500	BRL	96	80-120		
Matrix Spike Dup (1201968-MSD1)			**Source: SB42698-04**			Prepared & Analyzed: 25-Jan-12				
Mercury	**0.00467**		mg/l	0.00020	0.00500	BRL	93	80-120	3	20
Post Spike (1201968-PS1)			**Source: SB42698-04**			Prepared & Analyzed: 25-Jan-12				
Mercury	**0.00526**		mg/l	0.00020	0.00500	BRL	105	85-115		

General Chemistry Parameters - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201888 - General Preparation										
Blank (1201888-BLK1)						Prepared & Analyzed: 24-Jan-12				
Cyanide (total)	< 0.00500		mg/l	0.00500						
Blank (1201888-BLK2)						Prepared & Analyzed: 24-Jan-12				
Cyanide (total)	< 0.00500		mg/l	0.00500						
LCS (1201888-BS1)						Prepared & Analyzed: 24-Jan-12				
Cyanide (total)	**0.296**		mg/l	0.00500	0.300		99	90-110		
LCS (1201888-BS2)						Prepared & Analyzed: 24-Jan-12				
Cyanide (total)	**0.284**		mg/l	0.00500	0.300		95	90-110		
Reference (1201888-SRM1)						Prepared & Analyzed: 24-Jan-12				
Cyanide (total)	**0.171**		mg/l	0.00500	0.185		93	65-135		

Analyte(s)	Average RF	CCRF	% D	Limit
Batch S201217				
Calibration Check (S201217-CCV1)				
Benzene	125338.6	122726.8	-2.1	25
Ethylbenzene	69695.54	68816.56	-1.3	25
Methyl tert-butyl ether	67938.23	64153.86	-5.6	25
Naphthalene	64783.47	66334.52	2.4	25
Toluene	89233.04	89217.66	-0.02	25
m,p-Xylene	77150.11	75970.6	-1.5	25
o-Xylene	64126.76	62964.2	-1.8	25
2-Methylpentane	49629.85	49404.52	-0.5	25
n-Nonane	31577.51	32473.68	2.8	30
n-Pentane	45333.86	42632.92	-6.0	25
1,2,4-Trimethylbenzene	65528.51	63022.54	-3.8	25
2,2,4-Trimethylpentane	45933.74	48179.22	4.9	25
n-Butylcyclohexane	31621.02	31143.06	-1.5	25
n-Decane	27201.97	25402.38	-6.6	25

Notes and Definitions

GS1	Sample dilution required for high concentration of target analytes to be within the instrument calibration range.
PH	Insufficient preservative to reduce the sample pH to less than 2.
QC2	Analyte out of acceptance range in QC spike but no reportable concentration present in sample.
QM7	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
QM9	The spike recovery for this QC sample is outside the established control limits. The sample results for the QC batch were accepted based on LCS/LCSD or SRM recoveries within the control limits.
QR8	Analyses are not controlled on RPD values from sample concentrations that are less than 5 times the reporting level. The batch is accepted based upon the difference between the sample and duplicate is less than or equal to the reporting limit.
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference
J	Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).

A Matrix Spike and Matrix Spike Duplicate (MS/MSD) for MADEP EPH CAM may not have been analyzed with the samples in this work order. According to the method these spikes are performed only when requested by the client. If requested the spike recoveries are included in the batch QC data.

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

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

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

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

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

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

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

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

Validated by:
June O'Connor
Nicole Leja
Rebecca Merz

SB42698

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

CHAIN OF CUSTODY RECORD

Page 1 of 1

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

Report To: OTO
293 Bridge St Suite 500
Springfield, MA 01103
Project Mgr.: Val Tillinghast

Invoice To: OTO
P.O. No.: _____ RQN: _____

Project No.: 1753-03-01
Site Name: Lunt Silversmith
Location: Greenfield State: MA
Sampler(s): B. Thompson

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

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

G=Grab C=Composite

Lab Id:	Sample Id:	Date:	Time:	Type	Matrix	Preservative	Containers: # of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Analyses: 8260	VPH	EPH	RCRA 8 dissolved	Total Cyanide				QA Reporting Notes: (check if needed)
42698-01	LS-10	1/19/12	1203	G	GW	2	6	2			X	X	X						
-02	LS-19		1516			2	3				X								
-03	LS-20		1410			2/5	3	2		2	X		X	X	X				Las filter metals
-04	MW-7		1302			2/5	3			2	X			X	X				Las filter metals
-05	MW-6		1340			2/5	3			2	X			X	X				Las filter metals

QA Reporting Notes (check if needed):
- ☒ Provide MA DEP MCP CAM Report
- ☐ Provide CT DPH RCP Report

QA/QC Reporting Level
- ☒ Standard ☐ No QC
- ☐ Other _____

State specific reporting standards: _____

- ☐ Fax results when available to (_____) _____
- ☒ E-mail to tillinghast@oto-env.com
- EDD Format _____

Condition upon receipt: ☒ Iced ☐ Ambient ☒ °C 5.0

Relinquished by:	Received by:	Date:	Time:
		1/19/12	18:00

Report Date:
07-Mar-12 17:27

☑ Final Report
☐ Re-Issued Report
☐ Revised Report

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

Laboratory Report

O'Reilly, Talbot & Okun
293 Bridge Street; Suite 500
Springfield, MA 01103
Attn: Val Tillinghast

Project: Lunt Silversmith-Greenfield, MA
Project #: 1753-03-01

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
SB44536-01	LS-21	Ground Water	28-Feb-12 09:45	29-Feb-12 09:00
SB44536-02	LS-22	Ground Water	28-Feb-12 10:20	29-Feb-12 09:00
SB44536-03	LS-23	Ground Water	28-Feb-12 10:55	29-Feb-12 09:00
SB44536-04	LS-24	Ground Water	28-Feb-12 11:25	29-Feb-12 09:00
SB44536-05	MW-6	Ground Water	28-Feb-12 12:30	29-Feb-12 09:00
SB44536-06	Sump	Ground Water	28-Feb-12 09:11	29-Feb-12 09:00

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

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

Authorized by:

Nicole Leja
Laboratory Director

Spectrum Analytical holds certification in the State of Massachusetts for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of Massachusetts does not offer certification for all analytes.
Please note that this report contains 65 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Spectrum Analytical, Inc.

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

The following outlines the condition of all VPH samples contained within this report upon laboratory receipt.

Matrices	Ground Water		
Containers	✓ Satisfactory		
Sample Preservative	**Aqueous** (acid preserved)	N/A ✓ pH≤2 pH>2	
	Soil or Sediment	✓ N/A Samples not received in Methanol	ml Methanol/g soil 1:1 +/-25% Other
		Samples received in Methanol: covering soil/sediment not covering soil/sediment	
		Samples received in air-tight container	
Temperature	✓ Received on ice ✓ Received at 4 ± 2 ºC		

Were all QA/QC procedures followed as required by the VPH method? *Yes*
Were any significant modifications made to the VPH method as specified in section 11.3? *No*
Were all performance/acceptance standards for required QA/QC procedures achieved? *Yes*

The following outlines the condition of all EPH samples contained within this report upon laboratory receipt.

Matrices	Ground Water
Containers	✓ Satisfactory
Aqueous Preservative	N/A ✓ pH≤2 pH>2 pH adjusted to <2 in lab
Temperature	✓ Received on ice ✓ Received at 4 ± 2 ºC

Were all QA/QC procedures followed as required by the EPH method? *Yes*
Were any significant modifications made to the EPH method as specified in Section 11.3? *No*
Were all performance/acceptance standards for required QA/QC procedures achieved? *Yes*

I attest that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Authorized by:

Nicole Leja
Laboratory Director

MassDEP Analytical Protocol Certification Form

Laboratory Name: Spectrum Analytical, Inc.	**Project #:** 1753-03-01
Project Location: Lunt Silversmith-Greenfield, MA	**RTN:**
This form provides certifications for the following data set:	SB44536-01 through SB44536-06
Matrices: Ground Water	

CAM Protocol

✓ 8260 VOC CAM II A	✓ 7470/7471 Hg CAM III B	✓ MassDEP VPH CAM IV A	8081 Pesticides CAM V B	7196 Hex Cr CAM VI B	MassDEP APH CAM IX A
8270 SVOC CAM II B	7010 Metals CAM III C	✓ MassDEP EPH CAM IV B	8151 Herbicides CAM V C	8330 Explosives CAM VIII A	TO-15 VOC CAM IX B
✓ 6010 Metals CAM III A	6020 Metals CAM III D	8082 PCB CAM V A	✓ 9012 Total Cyanide/PAC CAM VI A	9014 Total Cyanide/PAC CAM VI A	6860 Perchlorate CAM VIII B

Affirmative responses to questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain of Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	✓ Yes No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	✓ Yes No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	✓ Yes No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	✓ Yes No
E	a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	✓ Yes No Yes No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to questions A through E)?	✓ Yes No

Responses to questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	Yes ✓ No

<u>Data User Note:</u> Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.

H	Were all QC performance standards specified in the CAM protocol(s) achieved?	Yes ✓ No
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	✓ Yes No

All negative responses are addressed in a case narrative on the cover page of this report.

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

Nicole Leja
Laboratory Director
Date: 3/7/2012

CASE NARRATIVE:

The samples were received 4.6 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/- 1.0 degrees Celsius was used immediately upon receipt of the samples.

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

MADEP has published a list of analytical methods (CAM) which provides a series of recommended protocols for the acquisition, analysis and reporting of analytical data in support of MCP decisions. "Presumptive Certainty" can be established only for those methods published by the MADEP in the MCP CAM. The compounds and/or elements reported were specifically requested by the client on the Chain of Custody and in some cases may not include the full analyte list as defined in the method. Regulatory limits may not be achieved if specific method and/or technique was not requested on the Chain of Custody.

According to WSC-CAM 5/2009 Rev.1, Table 11 A-1, recovery for some VOC analytes have been deemed potentially difficult. Although they may still be within the recommended recovery range, a range has been set based on historical control limits.

Some target analytes which are not listed as exceptions in the Summary of CAM Reporting Limits may exceed the recommended RL based on sample initial volume or weight provided, % moisture content, or responsiveness of a particular analyte to purge and trap instrumentation.

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

MADEP EPH 5/2004 R

Laboratory Control Samples:

1204572 BSD

Benzo (b) fluoranthene RPD 29% (25%) is outside individual acceptance criteria, but within overall method allowances.

1204572-BSD1

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

Benzo (b) fluoranthene

MADEP VPH 5/2004 Rev. 1.1

Samples:

SB44536-04 *LS-24*

The result for this hydrocarbon range is elevated due to the presence of single analyte peak(s) in the quantitation range.

C5-C8 Aliphatic Hydrocarbons
Unadjusted C5-C8 Aliphatic Hydrocarbons

SW846 6010C

Duplicates:

1204826-DUP1 *Source: SB44536-05*

Analyses are not controlled on RPD values from sample concentrations that are less than 5 times the reporting level. The batch is accepted based upon the difference between the sample and duplicate is less than or equal to the reporting limit.

Cadmium

Samples:

SB44536-04 *LS-24*

SW846 6010C

Samples:

SB44536-04 *LS-24*

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

Manganese

SW846 8260C

Calibration:

1202018

Analyte quantified by quadratic equation type calibration.

Vinyl chloride

This affected the following samples:

1204690-BLK1
1204690-BS1
1204690-BSD1
LS-21
LS-22
LS-23
LS-24
S201746-ICV1
S202363-CCV1

1202020

Analyte quantified by quadratic equation type calibration.

1,2,3-Trichlorobenzene
1,2-Dibromo-3-chloropropane
Bromoform
Dibromochloromethane
Naphthalene

This affected the following samples:

1204822-BLK1
1204822-BS1
1204822-BSD1
1204822-MS1
1204822-MSD1
1204913-BLK1
1204913-BS1
1204913-BSD1
1204913-MS1
1204913-MSD1
LS-22
LS-23
LS-24
MW-6
S201804-ICV1
S202374-CCV1
S202439-CCV1
Sump

Laboratory Control Samples:

1204690 BS/BSD

SW846 8260C

Laboratory Control Samples:

1204690 BS/BSD

1,2,4-Trichlorobenzene percent recoveries (130/132) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

LS-21
LS-22
LS-23
LS-24

2,2-Dichloropropane percent recoveries (131/128) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

LS-21
LS-22
LS-23
LS-24

Bromoform percent recoveries (134/140) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

LS-21
LS-22
LS-23
LS-24

Carbon tetrachloride percent recoveries (133/134) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

LS-21
LS-22
LS-23
LS-24

Hexachlorobutadiene percent recoveries (135/134) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

LS-21
LS-22
LS-23
LS-24

trans-1,3-Dichloropropene percent recoveries (131/129) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

LS-21
LS-22
LS-23
LS-24

1204822 BS/BSD

Bromomethane percent recoveries (131/121) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

LS-22
Sump

Spikes:

1204913-MSD1 *Source: SB44536-05*

SW846 8260C

Spikes:

1204913-MSD1 *Source: SB44536-05*

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

Trichloroethene

Samples:

S202363-CCV1

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

1,2,4-Trichlorobenzene (24.2%)
2,2-Dichloropropane (27.4%)
Acetone (-21.0%)
Bromoform (37.3%)
Carbon tetrachloride (27.0%)
Chloroethane (-25.5%)
Chloromethane (-34.6%)
Dibromochloromethane (25.3%)
Ethanol (-33.5%)
trans-1,3-Dichloropropene (31.3%)

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

Vinyl chloride (-28.4%)

This affected the following samples:

1204690-BLK1
1204690-BS1
1204690-BSD1
LS-21
LS-22
LS-23
LS-24

S202374-CCV1

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

Bromomethane (29.3%)
Carbon disulfide (21.9%)

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

Bromoform (22.1%)

This affected the following samples:

1204822-BLK1
1204822-BS1
1204822-BSD1
1204822-MS1
1204822-MSD1
LS-22
Sump

S202439-CCV1

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

Styrene (-30.6%)
Vinyl chloride (-20.3%)

SW846 8260C

Samples:

S202439-CCV1

This affected the following samples:

1204913-BLK1
1204913-BS1
1204913-BSD1
1204913-MS1
1204913-MSD1
LS-23
LS-24
MW-6

SB44536-02 *LS-22*

The concentration indicated for this analyte is an estimated value. This value is considered an estimate (CLP E-flag).

2-Butanone (MEK)
Tetrahydrofuran

SB44536-02RE1 *LS-22*

Data confirmed with duplicate analysis.

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

SB44536-03 *LS-23*

The concentration indicated for this analyte is an estimated value. This value is considered an estimate (CLP E-flag).

2-Butanone (MEK)
Tetrahydrofuran

SB44536-03RE1 *LS-23*

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

SB44536-04 *LS-24*

The concentration indicated for this analyte is an estimated value. This value is considered an estimate (CLP E-flag).

Tetrachloroethene
Trichloroethene

SB44536-04RE1 *LS-24*

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

SB44536-05 *MW-6*

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

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-21	1753-03-01	Ground Water	28-Feb-12 09:45	29-Feb-12
SB44536-01				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.6	1	SW846 8260C	01-Mar-12	02-Mar-12	jro	1204690	
67-64-1	Acetone	< 10.0		µg/l	10.0	2.6	1	"	"	"	"	"	
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	
71-43-2	Benzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
74-83-9	Bromomethane	< 2.0		µg/l	2.0	1.1	1	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	**24.9**		µg/l	10.0	1.7	1	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-00-3	Chloroethane	< 2.0		µg/l	2.0	1.0	1	"	"	"	"	"	
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
74-87-3	Chloromethane	< 2.0		µg/l	2.0	1.5	1	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	0.5	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-21	1753-03-01	Ground Water	28-Feb-12 09:45	29-Feb-12
SB44536-01				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds Prepared by method SW846 5030 Water MS													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.6	1	SW846 8260C	01-Mar-12	02-Mar-12	jro	1204690	
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.9	1	"	"	"	"	"	
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.7	1	"	"	"	"	"	
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
100-42-5	Styrene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	
127-18-4	Tetrachloroethene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
108-88-3	Toluene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
79-01-6	Trichloroethene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	1.6	1	"	"	"	"	"	
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.9	1	"	"	"	"	"	
109-99-9	Tetrahydrofuran	**32.5**		µg/l	2.0	1.4	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	8.6	1	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	14.0	1	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-butene	< 5.0		µg/l	5.0	0.8	1	"	"	"	"	"	
64-17-5	Ethanol	< 400		µg/l	400	35.7	1	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*104*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*101*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*111*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*105*			*70-130 %*			"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-22	1753-03-01	Ground Water	28-Feb-12 10:20	29-Feb-12
SB44536-02				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.6	1	SW846 8260C	01-Mar-12	02-Mar-12	jro	1204690	
67-64-1	Acetone	**34.6**		µg/l	10.0	2.6	1	"	"	"	"	"	
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	
71-43-2	Benzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
74-83-9	Bromomethane	< 2.0		µg/l	2.0	1.1	1	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	**122**	E	µg/l	10.0	1.7	1	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-00-3	Chloroethane	< 2.0		µg/l	2.0	1.0	1	"	"	"	"	"	
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
74-87-3	Chloromethane	< 2.0		µg/l	2.0	1.5	1	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	0.5	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-22	1753-03-01	Ground Water	28-Feb-12 10:20	29-Feb-12
SB44536-02				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds Prepared by method SW846 5030 Water MS													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.6	1	SW846 8260C	01-Mar-12	02-Mar-12	jro	1204690	
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.9	1	"	"	"	"	"	
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.7	1	"	"	"	"	"	
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
100-42-5	Styrene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	
127-18-4	Tetrachloroethene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
108-88-3	Toluene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
79-01-6	Trichloroethene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	1.6	1	"	"	"	"	"	
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.9	1	"	"	"	"	"	
109-99-9	Tetrahydrofuran	**152**	E	µg/l	2.0	1.4	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	8.6	1	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	14.0	1	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	0.8	1	"	"	"	"	"	
64-17-5	Ethanol	< 400		µg/l	400	35.7	1	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*103*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*100*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*114*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*105*			*70-130 %*			"	"	"	"	"	
Re-analysis of Volatile Organic Compounds Prepared by method SW846 5030 Water MS			GS1, V11										

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-22	1753-03-01	Ground Water	28-Feb-12 10:20	29-Feb-12
SB44536-02				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Re-analysis of Volatile Organic Compounds Prepared by method SW846 5030 Water MS			GS1, V11										
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 5.0		µg/l	5.0	3.2	5	SW846 8260C	05-Mar-12	05-Mar-12	eq	1204822	
67-64-1	Acetone	< 50.0		µg/l	50.0	12.8	5	"	"	"	"	"	
107-13-1	Acrylonitrile	< 2.5		µg/l	2.5	2.3	5	"	"	"	"	"	
71-43-2	Benzene	< 5.0		µg/l	5.0	3.3	5	"	"	"	"	"	
108-86-1	Bromobenzene	< 5.0		µg/l	5.0	3.6	5	"	"	"	"	"	
74-97-5	Bromochloromethane	< 5.0		µg/l	5.0	3.6	5	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 2.5		µg/l	2.5	2.4	5	"	"	"	"	"	
75-25-2	Bromoform	< 5.0		µg/l	5.0	3.0	5	"	"	"	"	"	
74-83-9	Bromomethane	< 10.0		µg/l	10.0	5.7	5	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	**53.0**		µg/l	50.0	8.7	5	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 5.0		µg/l	5.0	2.8	5	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 5.0		µg/l	5.0	4.1	5	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 5.0		µg/l	5.0	3.7	5	"	"	"	"	"	
75-15-0	Carbon disulfide	< 10.0		µg/l	10.0	3.1	5	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 5.0		µg/l	5.0	2.7	5	"	"	"	"	"	
108-90-7	Chlorobenzene	< 5.0		µg/l	5.0	3.3	5	"	"	"	"	"	
75-00-3	Chloroethane	< 10.0		µg/l	10.0	5.2	5	"	"	"	"	"	
67-66-3	Chloroform	< 5.0		µg/l	5.0	3.4	5	"	"	"	"	"	
74-87-3	Chloromethane	< 10.0		µg/l	10.0	7.4	5	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 5.0		µg/l	5.0	4.0	5	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 5.0		µg/l	5.0	3.7	5	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	< 10.0		µg/l	10.0	4.6	5	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 2.5		µg/l	2.5	1.4	5	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 2.5		µg/l	2.5	1.6	5	"	"	"	"	"	
74-95-3	Dibromomethane	< 5.0		µg/l	5.0	3.3	5	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 5.0		µg/l	5.0	3.3	5	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 5.0		µg/l	5.0	3.6	5	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 5.0		µg/l	5.0	3.1	5	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 10.0		µg/l	10.0	2.2	5	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 5.0		µg/l	5.0	3.4	5	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 5.0		µg/l	5.0	3.9	5	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 5.0		µg/l	5.0	2.4	5	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	< 5.0		µg/l	5.0	3.6	5	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 5.0		µg/l	5.0	3.4	5	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 5.0		µg/l	5.0	3.6	5	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 5.0		µg/l	5.0	4.0	5	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 5.0		µg/l	5.0	3.0	5	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 5.0		µg/l	5.0	3.2	5	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 2.5		µg/l	2.5	1.3	5	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 2.5		µg/l	2.5	2.5	5	"	"	"	"	"	
100-41-4	Ethylbenzene	< 5.0		µg/l	5.0	3.7	5	"	"	"	"	"	
87-68-3	Hexachlorobutadiene	< 2.5		µg/l	2.5	2.2	5	"	"	"	"	"	
591-78-6	2-Hexanone (MBK)	< 50.0		µg/l	50.0	2.7	5	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-22	1753-03-01	Ground Water	28-Feb-12 10:20	29-Feb-12
SB44536-02				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Re-analysis of Volatile Organic Compounds Prepared by method SW846 5030 Water MS			GS1, V11										
98-82-8	Isopropylbenzene	< 5.0		µg/l	5.0	3.1	5	SW846 8260C	05-Mar-12	05-Mar-12	eq	1204822	
99-87-6	4-Isopropyltoluene	< 5.0		µg/l	5.0	3.0	5	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 5.0		µg/l	5.0	3.3	5	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 50.0		µg/l	50.0	4.7	5	"	"	"	"	"	
75-09-2	Methylene chloride	< 10.0		µg/l	10.0	3.4	5	"	"	"	"	"	
91-20-3	Naphthalene	< 5.0		µg/l	5.0	1.7	5	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 5.0		µg/l	5.0	3.8	5	"	"	"	"	"	
100-42-5	Styrene	< 5.0		µg/l	5.0	3.1	5	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 5.0		µg/l	5.0	3.1	5	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 2.5		µg/l	2.5	1.7	5	"	"	"	"	"	
127-18-4	Tetrachloroethene	< 5.0		µg/l	5.0	3.7	5	"	"	"	"	"	
108-88-3	Toluene	< 5.0		µg/l	5.0	4.1	5	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 5.0		µg/l	5.0	1.9	5	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 5.0		µg/l	5.0	1.8	5	"	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 5.0		µg/l	5.0	3.9	5	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 5.0		µg/l	5.0	2.9	5	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 5.0		µg/l	5.0	3.2	5	"	"	"	"	"	
79-01-6	Trichloroethene	< 5.0		µg/l	5.0	3.8	5	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 5.0		µg/l	5.0	3.1	5	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 5.0		µg/l	5.0	3.7	5	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 5.0		µg/l	5.0	3.8	5	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 5.0		µg/l	5.0	3.7	5	"	"	"	"	"	
75-01-4	Vinyl chloride	< 5.0		µg/l	5.0	4.0	5	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 10.0		µg/l	10.0	8.2	5	"	"	"	"	"	
95-47-6	o-Xylene	< 5.0		µg/l	5.0	4.4	5	"	"	"	"	"	
109-99-9	Tetrahydrofuran	**68.0**		µg/l	10.0	7.2	5	"	"	"	"	"	
60-29-7	Ethyl ether	< 5.0		µg/l	5.0	3.5	5	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	< 5.0		µg/l	5.0	3.6	5	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 5.0		µg/l	5.0	3.9	5	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 5.0		µg/l	5.0	3.6	5	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 50.0		µg/l	50.0	43.2	5	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 100		µg/l	100	70.1	5	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-buten e	< 25.0		µg/l	25.0	3.8	5	"	"	"	"	"	
64-17-5	Ethanol	< 2000		µg/l	2000	178	5	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*99*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*99*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*91*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*100*			*70-130 %*			"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-23	1753-03-01	Ground Water	28-Feb-12 10:55	29-Feb-12
SB44536-03				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.6	1	SW846 8260C	01-Mar-12	02-Mar-12	jro	1204690	
67-64-1	Acetone	**71.5**		µg/l	10.0	2.6	1	"	"	"	"	"	
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	
71-43-2	Benzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
74-83-9	Bromomethane	< 2.0		µg/l	2.0	1.1	1	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	**302**	E	µg/l	10.0	1.7	1	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-00-3	Chloroethane	< 2.0		µg/l	2.0	1.0	1	"	"	"	"	"	
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
74-87-3	Chloromethane	< 2.0		µg/l	2.0	1.5	1	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	0.5	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-23	1753-03-01	Ground Water	28-Feb-12 10:55	29-Feb-12
SB44536-03				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds Prepared by method SW846 5030 Water MS													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.6	1	SW846 8260C	01-Mar-12	02-Mar-12	jro	1204690	
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.9	1	"	"	"	"	"	
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.7	1	"	"	"	"	"	
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
100-42-5	Styrene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	
127-18-4	Tetrachloroethene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
108-88-3	Toluene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
79-01-6	Trichloroethene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	1.6	1	"	"	"	"	"	
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.9	1	"	"	"	"	"	
109-99-9	Tetrahydrofuran	**403**	E	µg/l	2.0	1.4	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	8.6	1	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	14.0	1	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	0.8	1	"	"	"	"	"	
64-17-5	Ethanol	< 400		µg/l	400	35.7	1	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*104*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*100*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*116*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*105*			*70-130 %*			"	"	"	"	"	
Re-analysis of Volatile Organic Compounds Prepared by method SW846 5030 Water MS			GS1										

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

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-23	1753-03-01	Ground Water	28-Feb-12 10:55	29-Feb-12
SB44536-03				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Re-analysis of Volatile Organic Compounds Prepared by method SW846 5030 Water MS			GS1										
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 5.0		µg/l	5.0	3.2	5	SW846 8260C	06-Mar-12	06-Mar-12	eq	1204913	
67-64-1	Acetone	< 50.0		µg/l	50.0	12.8	5	"	"	"	"	"	
107-13-1	Acrylonitrile	< 2.5		µg/l	2.5	2.3	5	"	"	"	"	"	
71-43-2	Benzene	< 5.0		µg/l	5.0	3.3	5	"	"	"	"	"	
108-86-1	Bromobenzene	< 5.0		µg/l	5.0	3.6	5	"	"	"	"	"	
74-97-5	Bromochloromethane	< 5.0		µg/l	5.0	3.6	5	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 2.5		µg/l	2.5	2.4	5	"	"	"	"	"	
75-25-2	Bromoform	< 5.0		µg/l	5.0	3.0	5	"	"	"	"	"	
74-83-9	Bromomethane	< 10.0		µg/l	10.0	5.7	5	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	**89.8**		µg/l	50.0	8.7	5	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 5.0		µg/l	5.0	2.8	5	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 5.0		µg/l	5.0	4.1	5	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 5.0		µg/l	5.0	3.7	5	"	"	"	"	"	
75-15-0	Carbon disulfide	< 10.0		µg/l	10.0	3.1	5	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 5.0		µg/l	5.0	2.7	5	"	"	"	"	"	
108-90-7	Chlorobenzene	< 5.0		µg/l	5.0	3.3	5	"	"	"	"	"	
75-00-3	Chloroethane	< 10.0		µg/l	10.0	5.2	5	"	"	"	"	"	
67-66-3	Chloroform	< 5.0		µg/l	5.0	3.4	5	"	"	"	"	"	
74-87-3	Chloromethane	< 10.0		µg/l	10.0	7.4	5	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 5.0		µg/l	5.0	4.0	5	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 5.0		µg/l	5.0	3.7	5	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	< 10.0		µg/l	10.0	4.6	5	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 2.5		µg/l	2.5	1.4	5	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 2.5		µg/l	2.5	1.6	5	"	"	"	"	"	
74-95-3	Dibromomethane	< 5.0		µg/l	5.0	3.3	5	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 5.0		µg/l	5.0	3.3	5	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 5.0		µg/l	5.0	3.6	5	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 5.0		µg/l	5.0	3.1	5	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 10.0		µg/l	10.0	2.2	5	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 5.0		µg/l	5.0	3.4	5	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 5.0		µg/l	5.0	3.9	5	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 5.0		µg/l	5.0	2.4	5	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	< 5.0		µg/l	5.0	3.6	5	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 5.0		µg/l	5.0	3.4	5	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 5.0		µg/l	5.0	3.6	5	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 5.0		µg/l	5.0	4.0	5	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 5.0		µg/l	5.0	3.0	5	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 5.0		µg/l	5.0	3.2	5	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 2.5		µg/l	2.5	1.3	5	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 2.5		µg/l	2.5	2.5	5	"	"	"	"	"	
100-41-4	Ethylbenzene	< 5.0		µg/l	5.0	3.7	5	"	"	"	"	"	
87-68-3	Hexachlorobutadiene	< 2.5		µg/l	2.5	2.2	5	"	"	"	"	"	
591-78-6	2-Hexanone (MBK)	< 50.0		µg/l	50.0	2.7	5	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-23	1753-03-01	Ground Water	28-Feb-12 10:55	29-Feb-12
SB44536-03				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Re-analysis of Volatile Organic Compounds Prepared by method SW846 5030 Water MS			GS1										
98-82-8	Isopropylbenzene	< 5.0		µg/l	5.0	3.1	5	SW846 8260C	06-Mar-12	06-Mar-12	eq	1204913	
99-87-6	4-Isopropyltoluene	< 5.0		µg/l	5.0	3.0	5	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 5.0		µg/l	5.0	3.3	5	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 50.0		µg/l	50.0	4.7	5	"	"	"	"	"	
75-09-2	Methylene chloride	< 10.0		µg/l	10.0	3.4	5	"	"	"	"	"	
91-20-3	Naphthalene	< 5.0		µg/l	5.0	1.7	5	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 5.0		µg/l	5.0	3.8	5	"	"	"	"	"	
100-42-5	Styrene	< 5.0		µg/l	5.0	3.1	5	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 5.0		µg/l	5.0	3.1	5	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 2.5		µg/l	2.5	1.7	5	"	"	"	"	"	
127-18-4	Tetrachloroethene	< 5.0		µg/l	5.0	3.7	5	"	"	"	"	"	
108-88-3	Toluene	< 5.0		µg/l	5.0	4.1	5	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 5.0		µg/l	5.0	1.9	5	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 5.0		µg/l	5.0	1.8	5	"	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 5.0		µg/l	5.0	3.9	5	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 5.0		µg/l	5.0	2.9	5	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 5.0		µg/l	5.0	3.2	5	"	"	"	"	"	
79-01-6	Trichloroethene	< 5.0		µg/l	5.0	3.8	5	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 5.0		µg/l	5.0	3.1	5	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 5.0		µg/l	5.0	3.7	5	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 5.0		µg/l	5.0	3.8	5	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 5.0		µg/l	5.0	3.7	5	"	"	"	"	"	
75-01-4	Vinyl chloride	< 5.0		µg/l	5.0	4.0	5	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 10.0		µg/l	10.0	8.2	5	"	"	"	"	"	
95-47-6	o-Xylene	< 5.0		µg/l	5.0	4.4	5	"	"	"	"	"	
109-99-9	Tetrahydrofuran	121		µg/l	10.0	7.2	5	"	"	"	"	"	
60-29-7	Ethyl ether	< 5.0		µg/l	5.0	3.5	5	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	< 5.0		µg/l	5.0	3.6	5	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 5.0		µg/l	5.0	3.9	5	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 5.0		µg/l	5.0	3.6	5	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 50.0		µg/l	50.0	43.2	5	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 100		µg/l	100	70.1	5	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-buten e	< 25.0		µg/l	25.0	3.8	5	"	"	"	"	"	
64-17-5	Ethanol	< 2000		µg/l	2000	178	5	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*101*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*100*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*92*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*101*			*70-130 %*			"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-24	1753-03-01	Ground Water	28-Feb-12 11:25	29-Feb-12
SB44536-04				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.6	1	SW846 8260C	01-Mar-12	02-Mar-12	jro	1204690	
67-64-1	Acetone	< 10.0		µg/l	10.0	2.6	1	"	"	"	"	"	
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	
71-43-2	Benzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
74-83-9	Bromomethane	< 2.0		µg/l	2.0	1.1	1	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	1.7	1	"	"	"	"	"	
104-51-8	n-Butylbenzene	**3.4**		µg/l	1.0	0.6	1	"	"	"	"	"	
135-98-8	sec-Butylbenzene	**5.6**		µg/l	1.0	0.8	1	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-00-3	Chloroethane	< 2.0		µg/l	2.0	1.0	1	"	"	"	"	"	
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
74-87-3	Chloromethane	< 2.0		µg/l	2.0	1.5	1	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	**1.2**		µg/l	1.0	0.7	1	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	**3.6**		µg/l	1.0	0.5	1	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	**18.2**		µg/l	1.0	0.7	1	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	**1.0**		µg/l	1.0	0.7	1	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	0.5	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-24	1753-03-01	Ground Water	28-Feb-12 11:25	29-Feb-12
SB44536-04				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds Prepared by method SW846 5030 Water MS													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.6	1	SW846 8260C	01-Mar-12	02-Mar-12	jro	1204690	
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.9	1	"	"	"	"	"	
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.7	1	"	"	"	"	"	
91-20-3	Naphthalene	**1.0**		µg/l	1.0	0.3	1	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
100-42-5	Styrene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	
127-18-4	Tetrachloroethene	**1,150**	E	µg/l	1.0	0.7	1	"	"	"	"	"	
108-88-3	Toluene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	**80.5**		µg/l	1.0	0.6	1	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
79-01-6	Trichloroethene	**4,940**	E	µg/l	1.0	0.8	1	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	**2.2**		µg/l	1.0	0.8	1	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	1.6	1	"	"	"	"	"	
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.9	1	"	"	"	"	"	
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	1.4	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	8.6	1	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	14.0	1	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	0.8	1	"	"	"	"	"	
64-17-5	Ethanol	< 400		µg/l	400	35.7	1	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*104*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*104*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*114*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*92*			*70-130 %*			"	"	"	"	"	
Re-analysis of Volatile Organic Compounds Prepared by method SW846 5030 Water MS			GS1										

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-24	1753-03-01	Ground Water	28-Feb-12 11:25	29-Feb-12
SB44536-04				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Re-analysis of Volatile Organic Compounds Prepared by method SW846 5030 Water MS			GS1										
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 250		µg/l	250	162	250	SW846 8260C	06-Mar-12	06-Mar-12	eq	1204913	
67-64-1	Acetone	< 2500		µg/l	2500	639	250	"	"	"	"	"	
107-13-1	Acrylonitrile	< 125		µg/l	125	115	250	"	"	"	"	"	
71-43-2	Benzene	< 250		µg/l	250	167	250	"	"	"	"	"	
108-86-1	Bromobenzene	< 250		µg/l	250	180	250	"	"	"	"	"	
74-97-5	Bromochloromethane	< 250		µg/l	250	178	250	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 125		µg/l	125	120	250	"	"	"	"	"	
75-25-2	Bromoform	< 250		µg/l	250	151	250	"	"	"	"	"	
74-83-9	Bromomethane	< 500		µg/l	500	285	250	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	< 2500		µg/l	2500	434	250	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 250		µg/l	250	140	250	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 250		µg/l	250	205	250	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 250		µg/l	250	186	250	"	"	"	"	"	
75-15-0	Carbon disulfide	< 500		µg/l	500	157	250	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 250		µg/l	250	137	250	"	"	"	"	"	
108-90-7	Chlorobenzene	< 250		µg/l	250	164	250	"	"	"	"	"	
75-00-3	Chloroethane	< 500		µg/l	500	258	250	"	"	"	"	"	
67-66-3	Chloroform	< 250		µg/l	250	172	250	"	"	"	"	"	
74-87-3	Chloromethane	< 500		µg/l	500	368	250	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 250		µg/l	250	198	250	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 250		µg/l	250	183	250	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	< 500		µg/l	500	232	250	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 125		µg/l	125	72.2	250	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 125		µg/l	125	81.8	250	"	"	"	"	"	
74-95-3	Dibromomethane	< 250		µg/l	250	166	250	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 250		µg/l	250	167	250	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 250		µg/l	250	178	250	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 250		µg/l	250	156	250	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 500		µg/l	500	112	250	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 250		µg/l	250	170	250	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 250		µg/l	250	195	250	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 250		µg/l	250	122	250	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	< 250		µg/l	250	179	250	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 250		µg/l	250	170	250	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 250		µg/l	250	178	250	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 250		µg/l	250	202	250	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 250		µg/l	250	151	250	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 250		µg/l	250	159	250	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 125		µg/l	125	63.0	250	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 125		µg/l	125	125	250	"	"	"	"	"	
100-41-4	Ethylbenzene	< 250		µg/l	250	183	250	"	"	"	"	"	
87-68-3	Hexachlorobutadiene	< 125		µg/l	125	112	250	"	"	"	"	"	
591-78-6	2-Hexanone (MBK)	< 2500		µg/l	2500	136	250	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-24	1753-03-01	Ground Water	28-Feb-12 11:25	29-Feb-12
SB44536-04				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Re-analysis of Volatile Organic Compounds Prepared by method SW846 5030 Water MS			GS1										
98-82-8	Isopropylbenzene	< 250		µg/l	250	155	250	SW846 8260C	06-Mar-12	06-Mar-12	eq	1204913	
99-87-6	4-Isopropyltoluene	< 250		µg/l	250	152	250	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 250		µg/l	250	163	250	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 2500		µg/l	2500	233	250	"	"	"	"	"	
75-09-2	Methylene chloride	< 500		µg/l	500	172	250	"	"	"	"	"	
91-20-3	Naphthalene	< 250		µg/l	250	82.8	250	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 250		µg/l	250	190	250	"	"	"	"	"	
100-42-5	Styrene	< 250		µg/l	250	154	250	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 250		µg/l	250	156	250	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 125		µg/l	125	87.2	250	"	"	"	"	"	
127-18-4	Tetrachloroethene	**1,630**		µg/l	250	186	250	"	"	"	"	"	
108-88-3	Toluene	< 250		µg/l	250	203	250	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 250		µg/l	250	94.0	250	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 250		µg/l	250	90.0	250	"	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 250		µg/l	250	196	250	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 250		µg/l	250	146	250	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 250		µg/l	250	160	250	"	"	"	"	"	
79-01-6	Trichloroethene	**17,200**		µg/l	250	189	250	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 250		µg/l	250	157	250	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 250		µg/l	250	184	250	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 250		µg/l	250	189	250	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 250		µg/l	250	186	250	"	"	"	"	"	
75-01-4	Vinyl chloride	< 250		µg/l	250	202	250	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 500		µg/l	500	410	250	"	"	"	"	"	
95-47-6	o-Xylene	< 250		µg/l	250	220	250	"	"	"	"	"	
109-99-9	Tetrahydrofuran	< 500		µg/l	500	360	250	"	"	"	"	"	
60-29-7	Ethyl ether	< 250		µg/l	250	173	250	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	< 250		µg/l	250	180	250	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 250		µg/l	250	196	250	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 250		µg/l	250	182	250	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 2500		µg/l	2500	2160	250	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 5000		µg/l	5000	3510	250	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-buten e	< 1250		µg/l	1250	192	250	"	"	"	"	"	
64-17-5	Ethanol	< 100000		µg/l	100000	8920	250	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*100*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*98*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*91*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*96*			*70-130 %*			"	"	"	"	"	
VPH Aliphatic/Aromatic Carbon Ranges Prepared by method VPH - EPA 5030B													

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-24	1753-03-01	Ground Water	28-Feb-12 11:25	29-Feb-12
SB44536-04				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
VPH Aliphatic/Aromatic Carbon Ranges Prepared by method VPH - EPA 5030B													
	C5-C8 Aliphatic Hydrocarbons	**3,650**	D03	µg/l	75.0	5.55	5	MADEP VPH 5/2004 Rev. 1.1	06-Mar-12	06-Mar-12	mp	1204892	
	C9-C12 Aliphatic Hydrocarbons	**195**		µg/l	25.0	4.22	5	"	"	"	"	"	
	C9-C10 Aromatic Hydrocarbons	**82.3**		µg/l	25.0	1.12	5	"	"	"	"	"	
	Unadjusted C5-C8 Aliphatic Hydrocarbons	**3,650**	D03	µg/l	75.0	7.10	5	"	"	"	"	"	
	Unadjusted C9-C12 Aliphatic Hydrocarbons	**278**		µg/l	25.0	4.68	5	"	"	"	"	"	
VPH Target Analytes Prepared by method VPH - EPA 5030B													
71-43-2	Benzene	< 5.0		µg/l	5.0	1.3	5	"	"	"	"	"	
100-41-4	Ethylbenzene	< 5.0		µg/l	5.0	1.4	5	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 5.0		µg/l	5.0	1.6	5	"	"	"	"	"	
91-20-3	Naphthalene	< 5.0		µg/l	5.0	1.2	5	"	"	"	"	"	
108-88-3	Toluene	< 5.0		µg/l	5.0	1.3	5	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 10.0		µg/l	10.0	2.8	5	"	"	"	"	"	
95-47-6	o-Xylene	< 5.0		µg/l	5.0	1.1	5	"	"	"	"	"	
Surrogate recoveries:													
615-59-8	*2,5-Dibromotoluene (FID)*	*99*			*70-130 %*			"	"	"	"	"	
615-59-8	*2,5-Dibromotoluene (PID)*	*86*			*70-130 %*			"	"	"	"	"	
Extractable Petroleum Hydrocarbons													
EPH Aliphatic/Aromatic Ranges Prepared by method SW846 3510C													
	C9-C18 Aliphatic Hydrocarbons	< 125		µg/l	125	31.0	1	MADEP EPH 5/2004 R	01-Mar-12	06-Mar-12	MP	1204572	
	C19-C36 Aliphatic Hydrocarbons	< 125		µg/l	125	97.7	1	"	"	"	"	"	
	C11-C22 Aromatic Hydrocarbons	< 125		µg/l	125	68.2	1	"	"	"	"	"	
	Unadjusted C11-C22 Aromatic Hydrocarbons	< 125		µg/l	125	68.2	1	"	"	"	"	"	
	Total Petroleum Hydrocarbons	< 125		µg/l	125	68.2	1	"	"	"	"	"	
	Unadjusted Total Petroleum Hydrocarbons	< 125		µg/l	125	68.2	1	"	"	"	"	"	
EPH Target PAH Analytes Prepared by method SW846 3510C													
91-20-3	Naphthalene	< 6.25		µg/l	6.25	3.28	1	"	"	"	"	"	
91-57-6	2-Methylnaphthalene	< 6.25		µg/l	6.25	3.15	1	"	"	"	"	"	
208-96-8	Acenaphthylene	< 6.25		µg/l	6.25	3.64	1	"	"	"	"	"	
83-32-9	Acenaphthene	< 6.25		µg/l	6.25	3.69	1	"	"	"	"	"	
86-73-7	Fluorene	< 6.25		µg/l	6.25	3.72	1	"	"	"	"	"	
85-01-8	Phenanthrene	< 6.25		µg/l	6.25	4.24	1	"	"	"	"	"	
120-12-7	Anthracene	< 6.25		µg/l	6.25	4.55	1	"	"	"	"	"	
206-44-0	Fluoranthene	< 6.25		µg/l	6.25	4.28	1	"	"	"	"	"	
129-00-0	Pyrene	< 6.25		µg/l	6.25	4.21	1	"	"	"	"	"	
56-55-3	Benzo (a) anthracene	< 6.25		µg/l	6.25	5.88	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-24	1753-03-01	Ground Water	28-Feb-12 11:25	29-Feb-12
SB44536-04				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Extractable Petroleum Hydrocarbons													
EPH Target PAH Analytes Prepared by method SW846 3510C													
218-01-9	Chrysene	< 6.25		µg/l	6.25	4.29	1	MADEP EPH 5/2004 R	01-Mar-12	06-Mar-12	MP	1204572	
205-99-2	Benzo (b) fluoranthene	< 6.25		µg/l	6.25	4.25	1	"	"	"	"	"	
207-08-9	Benzo (k) fluoranthene	< 6.25		µg/l	6.25	4.44	1	"	"	"	"	"	
50-32-8	Benzo (a) pyrene	< 6.25		µg/l	6.25	4.46	1	"	"	"	"	"	
193-39-5	Indeno (1,2,3-cd) pyrene	< 6.25		µg/l	6.25	5.95	1	"	"	"	"	"	
53-70-3	Dibenzo (a,h) anthracene	< 6.25		µg/l	6.25	5.40	1	"	"	"	"	"	
191-24-2	Benzo (g,h,i) perylene	< 6.25		µg/l	6.25	4.24	1	"	"	"	"	"	
Surrogate recoveries:													
3386-33-2	*1-Chlorooctadecane*	*47*			*40-140 %*			"	"	"	"	"	
84-15-1	*Ortho-Terphenyl*	*69*			*40-140 %*			"	"	"	"	"	
321-60-8	*2-Fluorobiphenyl*	*79*			*40-140 %*			"	"	"	"	"	
Soluble Metals by EPA 200/6000 Series Methods													
	Filtration	**Lab Filtered**		N/A			1	EPA 200.7/3005A/6010	29-Feb-12 11:00	29-Feb-12 11:00	JLM	1204515	
Soluble Metals by EPA 6000/7000 Series Methods													
7440-22-4	Silver	< 0.0050		mg/l	0.0050	0.0020	1	SW846 6010C	05-Mar-12	05-Mar-12	ARF	1204826	
7429-90-5	Aluminum	**0.299**		mg/l	0.0250	0.0062	1	"	"	"	"	"	
7440-38-2	Arsenic	< 0.0040		mg/l	0.0040	0.0032	1	"	"	"	"	"	
7440-39-3	Barium	**0.0312**		mg/l	0.0050	0.0034	1	"	"	"	"	"	
7440-41-7	Beryllium	< 0.0020		mg/l	0.0020	0.0007	1	"	"	"	"	"	
7440-70-2	Calcium	**14.8**		mg/l	0.100	0.0520	1	"	"	"	"	"	
7440-43-9	Cadmium	< 0.0025		mg/l	0.0025	0.0001	1	"	"	"	"	"	
7440-48-4	Cobalt	< 0.0050		mg/l	0.0050	0.0006	1	"	"	"	"	"	
7440-47-3	Chromium	< 0.0050		mg/l	0.0050	0.0034	1	"	"	"	"	"	
7440-50-8	Copper	< 0.0050		mg/l	0.0050	0.0020	1	"	"	"	"	"	
7439-89-6	Iron	**0.524**		mg/l	0.0150	0.0046	1	"	"	"	"	"	
7440-09-7	Potassium	**10.0**		mg/l	0.500	0.157	1	"	"	"	"	"	
7439-95-4	Magnesium	**2.98**		mg/l	0.0100	0.0033	1	"	"	"	"	"	
7439-96-5	Manganese	**9.61**	GS1	mg/l	0.0100	0.0028	5	"	"	07-Mar-12	"	"	
7440-23-5	Sodium	**24.2**		mg/l	0.250	0.0307	1	"	"	05-Mar-12	"	"	
7440-02-0	Nickel	< 0.0050		mg/l	0.0050	0.0008	1	"	"	"	"	"	
7439-92-1	Lead	< 0.0075		mg/l	0.0075	0.0045	1	"	"	"	"	"	
7440-36-0	Antimony	< 0.0060		mg/l	0.0060	0.0035	1	"	"	"	"	"	
7782-49-2	Selenium	< 0.0150		mg/l	0.0150	0.0024	1	"	"	"	"	"	
7440-28-0	Thallium	< 0.0050		mg/l	0.0050	0.0025	1	"	"	"	"	"	
7440-62-2	Vanadium	< 0.0050		mg/l	0.0050	0.0022	1	"	"	"	"	"	
7440-66-6	Zinc	**0.0061**		mg/l	0.0050	0.0025	1	"	"	"	"	"	
Soluble Metals by EPA 200 Series Methods													
7439-97-6	Mercury	< 0.00020		mg/l	0.00020	0.00007	1	EPA 245.1/7470A	05-Mar-12	06-Mar-12	RH	1204827	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-6	1753-03-01	Ground Water	28-Feb-12 12:30	29-Feb-12
SB44536-05				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds Prepared by method SW846 5030 Water MS			GS1										
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 5.0		µg/l	5.0	3.2	5	SW846 8260C	06-Mar-12	06-Mar-12	eq	1204913	
67-64-1	Acetone	< 50.0		µg/l	50.0	12.8	5	"	"	"	"	"	
107-13-1	Acrylonitrile	< 2.5		µg/l	2.5	2.3	5	"	"	"	"	"	
71-43-2	Benzene	< 5.0		µg/l	5.0	3.3	5	"	"	"	"	"	
108-86-1	Bromobenzene	< 5.0		µg/l	5.0	3.6	5	"	"	"	"	"	
74-97-5	Bromochloromethane	< 5.0		µg/l	5.0	3.6	5	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 2.5		µg/l	2.5	2.4	5	"	"	"	"	"	
75-25-2	Bromoform	< 5.0		µg/l	5.0	3.0	5	"	"	"	"	"	
74-83-9	Bromomethane	< 10.0		µg/l	10.0	5.7	5	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	< 50.0		µg/l	50.0	8.7	5	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 5.0		µg/l	5.0	2.8	5	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 5.0		µg/l	5.0	4.1	5	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 5.0		µg/l	5.0	3.7	5	"	"	"	"	"	
75-15-0	Carbon disulfide	< 10.0		µg/l	10.0	3.1	5	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 5.0		µg/l	5.0	2.7	5	"	"	"	"	"	
108-90-7	Chlorobenzene	< 5.0		µg/l	5.0	3.3	5	"	"	"	"	"	
75-00-3	Chloroethane	< 10.0		µg/l	10.0	5.2	5	"	"	"	"	"	
67-66-3	Chloroform	< 5.0		µg/l	5.0	3.4	5	"	"	"	"	"	
74-87-3	Chloromethane	< 10.0		µg/l	10.0	7.4	5	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 5.0		µg/l	5.0	4.0	5	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 5.0		µg/l	5.0	3.7	5	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	< 10.0		µg/l	10.0	4.6	5	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 2.5		µg/l	2.5	1.4	5	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 2.5		µg/l	2.5	1.6	5	"	"	"	"	"	
74-95-3	Dibromomethane	< 5.0		µg/l	5.0	3.3	5	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 5.0		µg/l	5.0	3.3	5	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 5.0		µg/l	5.0	3.6	5	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 5.0		µg/l	5.0	3.1	5	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 10.0		µg/l	10.0	2.2	5	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 5.0		µg/l	5.0	3.4	5	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 5.0		µg/l	5.0	3.9	5	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 5.0		µg/l	5.0	2.4	5	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	**165**		µg/l	5.0	3.6	5	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	**6.7**		µg/l	5.0	3.4	5	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 5.0		µg/l	5.0	3.6	5	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 5.0		µg/l	5.0	4.0	5	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 5.0		µg/l	5.0	3.0	5	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 5.0		µg/l	5.0	3.2	5	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 2.5		µg/l	2.5	1.3	5	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 2.5		µg/l	2.5	2.5	5	"	"	"	"	"	
100-41-4	Ethylbenzene	< 5.0		µg/l	5.0	3.7	5	"	"	"	"	"	
87-68-3	Hexachlorobutadiene	< 2.5		µg/l	2.5	2.2	5	"	"	"	"	"	
591-78-6	2-Hexanone (MBK)	< 50.0		µg/l	50.0	2.7	5	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-6	1753-03-01	Ground Water	28-Feb-12 12:30	29-Feb-12
SB44536-05				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds Prepared by method SW846 5030 Water MS			GS1										
98-82-8	Isopropylbenzene	< 5.0		µg/l	5.0	3.1	5	SW846 8260C	06-Mar-12	06-Mar-12	eq	1204913	
99-87-6	4-Isopropyltoluene	< 5.0		µg/l	5.0	3.0	5	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 5.0		µg/l	5.0	3.3	5	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 50.0		µg/l	50.0	4.7	5	"	"	"	"	"	
75-09-2	Methylene chloride	< 10.0		µg/l	10.0	3.4	5	"	"	"	"	"	
91-20-3	Naphthalene	< 5.0		µg/l	5.0	1.7	5	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 5.0		µg/l	5.0	3.8	5	"	"	"	"	"	
100-42-5	Styrene	< 5.0		µg/l	5.0	3.1	5	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 5.0		µg/l	5.0	3.1	5	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 2.5		µg/l	2.5	1.7	5	"	"	"	"	"	
127-18-4	Tetrachloroethene	**18.6**		µg/l	5.0	3.7	5	"	"	"	"	"	
108-88-3	Toluene	< 5.0		µg/l	5.0	4.1	5	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 5.0		µg/l	5.0	1.9	5	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 5.0		µg/l	5.0	1.8	5	"	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 5.0		µg/l	5.0	3.9	5	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 5.0		µg/l	5.0	2.9	5	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 5.0		µg/l	5.0	3.2	5	"	"	"	"	"	
79-01-6	Trichloroethene	**232**		µg/l	5.0	3.8	5	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 5.0		µg/l	5.0	3.1	5	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 5.0		µg/l	5.0	3.7	5	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 5.0		µg/l	5.0	3.8	5	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 5.0		µg/l	5.0	3.7	5	"	"	"	"	"	
75-01-4	Vinyl chloride	**47.2**		µg/l	5.0	4.0	5	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 10.0		µg/l	10.0	8.2	5	"	"	"	"	"	
95-47-6	o-Xylene	< 5.0		µg/l	5.0	4.4	5	"	"	"	"	"	
109-99-9	Tetrahydrofuran	< 10.0		µg/l	10.0	7.2	5	"	"	"	"	"	
60-29-7	Ethyl ether	< 5.0		µg/l	5.0	3.5	5	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	< 5.0		µg/l	5.0	3.6	5	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 5.0		µg/l	5.0	3.9	5	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 5.0		µg/l	5.0	3.6	5	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 50.0		µg/l	50.0	43.2	5	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 100		µg/l	100	70.1	5	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-buten e	< 25.0		µg/l	25.0	3.8	5	"	"	"	"	"	
64-17-5	Ethanol	< 2000		µg/l	2000	178	5	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*98*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*99*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*90*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*98*			*70-130 %*			"	"	"	"	"	
Soluble Metals by EPA 200/6000 Series Methods													

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-6 SB44536-05	1753-03-01	Ground Water	28-Feb-12 12:30	29-Feb-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Soluble Metals by EPA 200/6000 Series Methods													
	Filtration	**Lab Filtered**		N/A			1	EPA 200.7/3005A/6010	29-Feb-12 11:00	29-Feb-12 11:00	JLM	1204515	
Soluble Metals by EPA 6000/7000 Series Methods													
7440-22-4	Silver	< 0.0050		mg/l	0.0050	0.0020	1	SW846 6010C	05-Mar-12	05-Mar-12	ARF	1204826	
7429-90-5	Aluminum	**0.205**		mg/l	0.0250	0.0062	1	"	"	"	"	"	
7440-38-2	Arsenic	< 0.0040		mg/l	0.0040	0.0032	1	"	"	"	"	"	
7440-39-3	Barium	**0.0200**		mg/l	0.0050	0.0034	1	"	"	"	"	"	
7440-41-7	Beryllium	< 0.0020		mg/l	0.0020	0.0007	1	"	"	"	"	"	
7440-70-2	Calcium	**3.05**		mg/l	0.100	0.0520	1	"	"	"	"	"	
7440-43-9	Cadmium	< 0.0025		mg/l	0.0025	0.0001	1	"	"	"	"	"	
7440-48-4	Cobalt	< 0.0050		mg/l	0.0050	0.0006	1	"	"	"	"	"	
7440-47-3	Chromium	< 0.0050		mg/l	0.0050	0.0034	1	"	"	"	"	"	
7440-50-8	Copper	**0.0101**		mg/l	0.0050	0.0020	1	"	"	"	"	"	
7439-89-6	Iron	**0.281**		mg/l	0.0150	0.0046	1	"	"	"	"	"	
7440-09-7	Potassium	**1.27**		mg/l	0.500	0.157	1	"	"	"	"	"	
7439-95-4	Magnesium	**0.662**		mg/l	0.0100	0.0033	1	"	"	"	"	"	
7439-96-5	Manganese	**0.191**		mg/l	0.0020	0.0006	1	"	"	"	"	"	
7440-23-5	Sodium	**49.2**		mg/l	0.250	0.0307	1	"	"	"	"	"	
7440-02-0	Nickel	< 0.0050		mg/l	0.0050	0.0008	1	"	"	"	"	"	
7439-92-1	Lead	**0.0075**		mg/l	0.0075	0.0045	1	"	"	"	"	"	
7440-36-0	Antimony	**0.0256**		mg/l	0.0060	0.0035	1	"	"	"	"	"	
7782-49-2	Selenium	< 0.0150		mg/l	0.0150	0.0024	1	"	"	"	"	"	
7440-28-0	Thallium	< 0.0050		mg/l	0.0050	0.0025	1	"	"	"	"	"	
7440-62-2	Vanadium	< 0.0050		mg/l	0.0050	0.0022	1	"	"	"	"	"	
7440-66-6	Zinc	**0.0398**		mg/l	0.0050	0.0025	1	"	"	"	"	"	
Soluble Metals by EPA 200 Series Methods													
7439-97-6	Mercury	< 0.00020		mg/l	0.00020	0.00007	1	EPA 245.1/7470A	05-Mar-12	06-Mar-12	RH	1204827	X
General Chemistry Parameters													
57-12-5	Cyanide (total)	**0.0168**		mg/l	0.00500	0.00498	1	EPA 335.4 / SW846 9012B	01-Mar-12	01-Mar-12	eemon	1204587	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
Sump	1753-03-01	Ground Water	28-Feb-12 09:11	29-Feb-12
SB44536-06				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.6	1	SW846 8260C	05-Mar-12	05-Mar-12	eq	1204822	
67-64-1	Acetone	< 10.0		µg/l	10.0	2.6	1	"	"	"	"	"	
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	
71-43-2	Benzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
74-83-9	Bromomethane	< 2.0		µg/l	2.0	1.1	1	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	1.7	1	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-00-3	Chloroethane	< 2.0		µg/l	2.0	1.0	1	"	"	"	"	"	
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
74-87-3	Chloromethane	< 2.0		µg/l	2.0	1.5	1	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	0.5	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
Sump	1753-03-01	Ground Water	28-Feb-12 09:11	29-Feb-12
SB44536-06				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds Prepared by method SW846 5030 Water MS													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.6	1	SW846 8260C	05-Mar-12	05-Mar-12	eq	1204822	
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.9	1	"	"	"	"	"	
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.7	1	"	"	"	"	"	
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
100-42-5	Styrene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	
127-18-4	Tetrachloroethene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
108-88-3	Toluene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
79-01-6	Trichloroethene	**1.6**		µg/l	1.0	0.8	1	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	1.6	1	"	"	"	"	"	
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.9	1	"	"	"	"	"	
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	1.4	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	8.6	1	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	14.0	1	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-butene	< 5.0		µg/l	5.0	0.8	1	"	"	"	"	"	
64-17-5	Ethanol	< 400		µg/l	400	35.7	1	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*99*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*99*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*92*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*98*			*70-130 %*			"	"	"	"	"	
VPH Aliphatic/Aromatic Carbon Ranges Prepared by method VPH - EPA 5030B													

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
Sump	1753-03-01	Ground Water	28-Feb-12 09:11	29-Feb-12
SB44536-06				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
VPH Aliphatic/Aromatic Carbon Ranges Prepared by method VPH - EPA 5030B													
	C5-C8 Aliphatic Hydrocarbons	< 75.0		µg/l	75.0	5.55	5	MADEP VPH 5/2004 Rev. 1.1	06-Mar-12	06-Mar-12	mp	1204892	
	C9-C12 Aliphatic Hydrocarbons	< 25.0		µg/l	25.0	4.22	5	"	"	"	"	"	
	C9-C10 Aromatic Hydrocarbons	< 25.0		µg/l	25.0	1.12	5	"	"	"	"	"	
	Unadjusted C5-C8 Aliphatic Hydrocarbons	< 75.0		µg/l	75.0	7.10	5	"	"	"	"	"	
	Unadjusted C9-C12 Aliphatic Hydrocarbons	< 25.0		µg/l	25.0	4.68	5	"	"	"	"	"	
VPH Target Analytes Prepared by method VPH - EPA 5030B													
71-43-2	Benzene	< 5.0		µg/l	5.0	1.3	5	"	"	"	"	"	
100-41-4	Ethylbenzene	< 5.0		µg/l	5.0	1.4	5	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 5.0		µg/l	5.0	1.6	5	"	"	"	"	"	
91-20-3	Naphthalene	< 5.0		µg/l	5.0	1.2	5	"	"	"	"	"	
108-88-3	Toluene	< 5.0		µg/l	5.0	1.3	5	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 10.0		µg/l	10.0	2.8	5	"	"	"	"	"	
95-47-6	o-Xylene	< 5.0		µg/l	5.0	1.1	5	"	"	"	"	"	
Surrogate recoveries:													
615-59-8	*2,5-Dibromotoluene (FID)*	*101*			*70-130 %*			"	"	"	"	"	
615-59-8	*2,5-Dibromotoluene (PID)*	*85*			*70-130 %*			"	"	"	"	"	

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1204690 - SW846 5030 Water MS										
Blank (1204690-BLK1)					Prepared & Analyzed: 02-Mar-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0						
Acetone	< 10.0		µg/l	10.0						
Acrylonitrile	< 0.5		µg/l	0.5						
Benzene	< 1.0		µg/l	1.0						
Bromobenzene	< 1.0		µg/l	1.0						
Bromochloromethane	< 1.0		µg/l	1.0						
Bromodichloromethane	< 0.5		µg/l	0.5						
Bromoform	< 1.0		µg/l	1.0						
Bromomethane	< 2.0		µg/l	2.0						
2-Butanone (MEK)	< 10.0		µg/l	10.0						
n-Butylbenzene	< 1.0		µg/l	1.0						
sec-Butylbenzene	< 1.0		µg/l	1.0						
tert-Butylbenzene	< 1.0		µg/l	1.0						
Carbon disulfide	< 2.0		µg/l	2.0						
Carbon tetrachloride	< 1.0		µg/l	1.0						
Chlorobenzene	< 1.0		µg/l	1.0						
Chloroethane	< 2.0		µg/l	2.0						
Chloroform	< 1.0		µg/l	1.0						
Chloromethane	< 2.0		µg/l	2.0						
2-Chlorotoluene	< 1.0		µg/l	1.0						
4-Chlorotoluene	< 1.0		µg/l	1.0						
1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0						
Dibromochloromethane	< 0.5		µg/l	0.5						
1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5						
Dibromomethane	< 1.0		µg/l	1.0						
1,2-Dichlorobenzene	< 1.0		µg/l	1.0						
1,3-Dichlorobenzene	< 1.0		µg/l	1.0						
1,4-Dichlorobenzene	< 1.0		µg/l	1.0						
Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0						
1,1-Dichloroethane	< 1.0		µg/l	1.0						
1,2-Dichloroethane	< 1.0		µg/l	1.0						
1,1-Dichloroethene	< 1.0		µg/l	1.0						
cis-1,2-Dichloroethene	< 1.0		µg/l	1.0						
trans-1,2-Dichloroethene	< 1.0		µg/l	1.0						
1,2-Dichloropropane	< 1.0		µg/l	1.0						
1,3-Dichloropropane	< 1.0		µg/l	1.0						
2,2-Dichloropropane	< 1.0		µg/l	1.0						
1,1-Dichloropropene	< 1.0		µg/l	1.0						
cis-1,3-Dichloropropene	< 0.5		µg/l	0.5						
trans-1,3-Dichloropropene	< 0.5		µg/l	0.5						
Ethylbenzene	< 1.0		µg/l	1.0						
Hexachlorobutadiene	< 0.5		µg/l	0.5						
2-Hexanone (MBK)	< 10.0		µg/l	10.0						
Isopropylbenzene	< 1.0		µg/l	1.0						
4-Isopropyltoluene	< 1.0		µg/l	1.0						
Methyl tert-butyl ether	< 1.0		µg/l	1.0						
4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0						
Methylene chloride	< 2.0		µg/l	2.0						
Naphthalene	< 1.0		µg/l	1.0						
n-Propylbenzene	< 1.0		µg/l	1.0						
Styrene	< 1.0		µg/l	1.0						
1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1204690 - SW846 5030 Water MS										
Blank (1204690-BLK1)					Prepared & Analyzed: 02-Mar-12					
1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5						
Tetrachloroethene	< 1.0		µg/l	1.0						
Toluene	< 1.0		µg/l	1.0						
1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0						
1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0						
1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0						
1,1,1-Trichloroethane	< 1.0		µg/l	1.0						
1,1,2-Trichloroethane	< 1.0		µg/l	1.0						
Trichloroethene	< 1.0		µg/l	1.0						
Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0						
1,2,3-Trichloropropane	< 1.0		µg/l	1.0						
1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0						
1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0						
Vinyl chloride	< 1.0		µg/l	1.0						
m,p-Xylene	< 2.0		µg/l	2.0						
o-Xylene	< 1.0		µg/l	1.0						
Tetrahydrofuran	< 2.0		µg/l	2.0						
Ethyl ether	< 1.0		µg/l	1.0						
Tert-amyl methyl ether	< 1.0		µg/l	1.0						
Ethyl tert-butyl ether	< 1.0		µg/l	1.0						
Di-isopropyl ether	< 1.0		µg/l	1.0						
Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0						
1,4-Dioxane	< 20.0		µg/l	20.0						
trans-1,4-Dichloro-2-butene	< 5.0		µg/l	5.0						
Ethanol	< 400		µg/l	400						
Surrogate: 4-Bromofluorobenzene	*51.3*		µg/l		*50.0*		*103*	*70-130*		
Surrogate: Toluene-d8	*50.3*		µg/l		*50.0*		*101*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*55.1*		µg/l		*50.0*		*110*	*70-130*		
Surrogate: Dibromofluoromethane	*53.1*		µg/l		*50.0*		*106*	*70-130*		
LCS (1204690-BS1)					Prepared & Analyzed: 02-Mar-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**21.5**		µg/l		20.0		108	70-130		
Acetone	**15.9**		µg/l		20.0		80	70-130		
Acrylonitrile	**17.6**		µg/l		20.0		88	70-130		
Benzene	**19.4**		µg/l		20.0		97	70-130		
Bromobenzene	**21.7**		µg/l		20.0		108	70-130		
Bromochloromethane	**21.0**		µg/l		20.0		105	70-130		
Bromodichloromethane	**23.1**		µg/l		20.0		116	70-130		
Bromoform	**26.9**	QC2	µg/l		20.0		134	70-130		
Bromomethane	**21.1**		µg/l		20.0		106	70-130		
2-Butanone (MEK)	**19.7**		µg/l		20.0		99	70-130		
n-Butylbenzene	**24.9**		µg/l		20.0		125	70-130		
sec-Butylbenzene	**24.2**		µg/l		20.0		121	70-130		
tert-Butylbenzene	**25.3**		µg/l		20.0		126	70-130		
Carbon disulfide	**21.2**		µg/l		20.0		106	70-130		
Carbon tetrachloride	**26.5**	QC2	µg/l		20.0		133	70-130		
Chlorobenzene	**19.9**		µg/l		20.0		99	70-130		
Chloroethane	**16.7**		µg/l		20.0		84	70-130		
Chloroform	**23.3**		µg/l		20.0		117	70-130		
Chloromethane	**15.2**		µg/l		20.0		76	70-130		
2-Chlorotoluene	**22.0**		µg/l		20.0		110	70-130		
4-Chlorotoluene	**23.0**		µg/l		20.0		115	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1204690 - SW846 5030 Water MS										
LCS (1204690-BS1)					Prepared & Analyzed: 02-Mar-12					
1,2-Dibromo-3-chloropropane	**22.2**		µg/l		20.0		111	70-130		
Dibromochloromethane	**25.1**		µg/l		20.0		125	70-130		
1,2-Dibromoethane (EDB)	**21.5**		µg/l		20.0		108	70-130		
Dibromomethane	**20.3**		µg/l		20.0		102	70-130		
1,2-Dichlorobenzene	**22.1**		µg/l		20.0		111	70-130		
1,3-Dichlorobenzene	**21.8**		µg/l		20.0		109	70-130		
1,4-Dichlorobenzene	**20.1**		µg/l		20.0		100	70-130		
Dichlorodifluoromethane (Freon12)	**20.6**		µg/l		20.0		103	70-130		
1,1-Dichloroethane	**19.5**		µg/l		20.0		97	70-130		
1,2-Dichloroethane	**21.0**		µg/l		20.0		105	70-130		
1,1-Dichloroethene	**20.4**		µg/l		20.0		102	70-130		
cis-1,2-Dichloroethene	**20.0**		µg/l		20.0		100	70-130		
trans-1,2-Dichloroethene	**19.6**		µg/l		20.0		98	70-130		
1,2-Dichloropropane	**18.4**		µg/l		20.0		92	70-130		
1,3-Dichloropropane	**18.9**		µg/l		20.0		94	70-130		
2,2-Dichloropropane	**26.2**	QM9	µg/l		20.0		131	70-130		
1,1-Dichloropropene	**22.1**		µg/l		20.0		111	70-130		
cis-1,3-Dichloropropene	**24.2**		µg/l		20.0		121	70-130		
trans-1,3-Dichloropropene	**26.3**	QM9	µg/l		20.0		131	70-130		
Ethylbenzene	**22.1**		µg/l		20.0		110	70-130		
Hexachlorobutadiene	**26.9**	QC2	µg/l		20.0		135	70-130		
2-Hexanone (MBK)	**18.3**		µg/l		20.0		92	70-130		
Isopropylbenzene	**22.5**		µg/l		20.0		112	70-130		
4-Isopropyltoluene	**24.0**		µg/l		20.0		120	70-130		
Methyl tert-butyl ether	**20.6**		µg/l		20.0		103	70-130		
4-Methyl-2-pentanone (MIBK)	**21.0**		µg/l		20.0		105	70-130		
Methylene chloride	**18.2**		µg/l		20.0		91	70-130		
Naphthalene	**21.8**		µg/l		20.0		109	70-130		
n-Propylbenzene	**23.2**		µg/l		20.0		116	70-130		
Styrene	**23.0**		µg/l		20.0		115	70-130		
1,1,1,2-Tetrachloroethane	**24.3**		µg/l		20.0		121	70-130		
1,1,2,2-Tetrachloroethane	**19.8**		µg/l		20.0		99	70-130		
Tetrachloroethene	**23.2**		µg/l		20.0		116	70-130		
Toluene	**19.8**		µg/l		20.0		99	70-130		
1,2,3-Trichlorobenzene	**25.4**		µg/l		20.0		127	70-130		
1,2,4-Trichlorobenzene	**26.0**		µg/l		20.0		130	70-130		
1,3,5-Trichlorobenzene	**24.8**		µg/l		20.0		124	70-130		
1,1,1-Trichloroethane	**25.1**		µg/l		20.0		126	70-130		
1,1,2-Trichloroethane	**19.4**		µg/l		20.0		97	70-130		
Trichloroethene	**20.8**		µg/l		20.0		104	70-130		
Trichlorofluoromethane (Freon 11)	**23.2**		µg/l		20.0		116	70-130		
1,2,3-Trichloropropane	**19.3**		µg/l		20.0		96	70-130		
1,2,4-Trimethylbenzene	**25.0**		µg/l		20.0		125	70-130		
1,3,5-Trimethylbenzene	**25.0**		µg/l		20.0		125	70-130		
Vinyl chloride	**14.5**		µg/l		20.0		72	70-130		
m,p-Xylene	**45.6**		µg/l		40.0		114	70-130		
o-Xylene	**22.7**		µg/l		20.0		113	70-130		
Tetrahydrofuran	**18.2**		µg/l		20.0		91	70-130		
Ethyl ether	**17.9**		µg/l		20.0		90	70-130		
Tert-amyl methyl ether	**19.7**		µg/l		20.0		99	70-130		
Ethyl tert-butyl ether	**21.1**		µg/l		20.0		105	70-130		
Di-isopropyl ether	**18.8**		µg/l		20.0		94	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1204690 - SW846 5030 Water MS										
LCS (1204690-BS1)					Prepared & Analyzed: 02-Mar-12					
Tert-Butanol / butyl alcohol	**199**		µg/l		200		100	70-130		
1,4-Dioxane	**194**		µg/l		200		97	70-130		
trans-1,4-Dichloro-2-butene	**21.3**		µg/l		20.0		106	70-130		
Ethanol	**292**		µg/l		400		73	70-130		
Surrogate: 4-Bromofluorobenzene	*51.6*		µg/l		*50.0*		*103*	*70-130*		
Surrogate: Toluene-d8	*51.1*		µg/l		*50.0*		*102*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*55.4*		µg/l		*50.0*		*111*	*70-130*		
Surrogate: Dibromofluoromethane	*53.2*		µg/l		*50.0*		*106*	*70-130*		
LCS Dup (1204690-BSD1)					Prepared & Analyzed: 02-Mar-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**21.3**		µg/l		20.0		106	70-130	1	25
Acetone	**16.8**		µg/l		20.0		84	70-130	5	50
Acrylonitrile	**17.1**		µg/l		20.0		85	70-130	3	25
Benzene	**19.2**		µg/l		20.0		96	70-130	1	25
Bromobenzene	**23.0**		µg/l		20.0		115	70-130	6	25
Bromochloromethane	**21.3**		µg/l		20.0		107	70-130	2	25
Bromodichloromethane	**22.8**		µg/l		20.0		114	70-130	2	25
Bromoform	**28.0**	QC2	µg/l		20.0		140	70-130	4	25
Bromomethane	**21.1**		µg/l		20.0		106	70-130	0.05	50
2-Butanone (MEK)	**19.7**		µg/l		20.0		98	70-130	0.2	50
n-Butylbenzene	**23.2**		µg/l		20.0		116	70-130	7	25
sec-Butylbenzene	**24.4**		µg/l		20.0		122	70-130	0.8	25
tert-Butylbenzene	**25.9**		µg/l		20.0		129	70-130	2	25
Carbon disulfide	**21.0**		µg/l		20.0		105	70-130	1	25
Carbon tetrachloride	**26.8**	QC2	µg/l		20.0		134	70-130	0.9	25
Chlorobenzene	**20.2**		µg/l		20.0		101	70-130	2	25
Chloroethane	**16.4**		µg/l		20.0		82	70-130	2	50
Chloroform	**23.0**		µg/l		20.0		115	70-130	1	25
Chloromethane	**14.5**		µg/l		20.0		73	70-130	4	25
2-Chlorotoluene	**21.8**		µg/l		20.0		109	70-130	0.9	25
4-Chlorotoluene	**22.7**		µg/l		20.0		114	70-130	1	25
1,2-Dibromo-3-chloropropane	**22.0**		µg/l		20.0		110	70-130	1	25
Dibromochloromethane	**25.5**		µg/l		20.0		127	70-130	2	50
1,2-Dibromoethane (EDB)	**22.1**		µg/l		20.0		110	70-130	3	25
Dibromomethane	**20.1**		µg/l		20.0		101	70-130	1	25
1,2-Dichlorobenzene	**21.9**		µg/l		20.0		110	70-130	0.9	25
1,3-Dichlorobenzene	**22.3**		µg/l		20.0		112	70-130	3	25
1,4-Dichlorobenzene	**20.0**		µg/l		20.0		100	70-130	0.3	25
Dichlorodifluoromethane (Freon12)	**20.2**		µg/l		20.0		101	70-130	2	50
1,1-Dichloroethane	**19.0**		µg/l		20.0		95	70-130	2	25
1,2-Dichloroethane	**20.6**		µg/l		20.0		103	70-130	2	25
1,1-Dichloroethene	**20.4**		µg/l		20.0		102	70-130	0.05	25
cis-1,2-Dichloroethene	**20.4**		µg/l		20.0		102	70-130	2	25
trans-1,2-Dichloroethene	**19.5**		µg/l		20.0		97	70-130	0.6	25
1,2-Dichloropropane	**18.3**		µg/l		20.0		91	70-130	0.9	25
1,3-Dichloropropane	**18.6**		µg/l		20.0		93	70-130	1	25
2,2-Dichloropropane	**25.6**		µg/l		20.0		128	70-130	2	25
1,1-Dichloropropene	**21.8**		µg/l		20.0		109	70-130	2	25
cis-1,3-Dichloropropene	**23.6**		µg/l		20.0		118	70-130	3	25
trans-1,3-Dichloropropene	**25.8**		µg/l		20.0		129	70-130	2	25
Ethylbenzene	**22.2**		µg/l		20.0		111	70-130	0.3	25
Hexachlorobutadiene	**26.8**	QC2	µg/l		20.0		134	70-130	0.6	50

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1204690 - SW846 5030 Water MS										
LCS Dup (1204690-BSD1)					Prepared & Analyzed: 02-Mar-12					
2-Hexanone (MBK)	**18.7**		µg/l		20.0		94	70-130	2	25
Isopropylbenzene	**22.5**		µg/l		20.0		113	70-130	0.2	25
4-Isopropyltoluene	**23.3**		µg/l		20.0		116	70-130	3	25
Methyl tert-butyl ether	**19.2**		µg/l		20.0		96	70-130	7	25
4-Methyl-2-pentanone (MIBK)	**20.4**		µg/l		20.0		102	70-130	3	50
Methylene chloride	**18.0**		µg/l		20.0		90	70-130	0.8	25
Naphthalene	**21.3**		µg/l		20.0		107	70-130	2	25
n-Propylbenzene	**23.1**		µg/l		20.0		116	70-130	0.5	25
Styrene	**23.5**		µg/l		20.0		118	70-130	2	25
1,1,1,2-Tetrachloroethane	**25.0**		µg/l		20.0		125	70-130	3	25
1,1,2,2-Tetrachloroethane	**20.1**		µg/l		20.0		101	70-130	2	25
Tetrachloroethene	**23.6**		µg/l		20.0		118	70-130	2	25
Toluene	**19.6**		µg/l		20.0		98	70-130	0.6	25
1,2,3-Trichlorobenzene	**25.4**		µg/l		20.0		127	70-130	0.2	25
1,2,4-Trichlorobenzene	**26.5**	QM9	µg/l		20.0		132	70-130	2	25
1,3,5-Trichlorobenzene	**24.6**		µg/l		20.0		123	70-130	0.6	25
1,1,1-Trichloroethane	**25.1**		µg/l		20.0		125	70-130	0.3	25
1,1,2-Trichloroethane	**19.3**		µg/l		20.0		97	70-130	0.3	25
Trichloroethene	**19.9**		µg/l		20.0		100	70-130	4	25
Trichlorofluoromethane (Freon 11)	**22.5**		µg/l		20.0		113	70-130	3	50
1,2,3-Trichloropropane	**20.0**		µg/l		20.0		100	70-130	4	25
1,2,4-Trimethylbenzene	**25.3**		µg/l		20.0		126	70-130	1	25
1,3,5-Trimethylbenzene	**25.0**		µg/l		20.0		125	70-130	0.3	25
Vinyl chloride	**14.2**		µg/l		20.0		71	70-130	2	25
m,p-Xylene	**46.3**		µg/l		40.0		116	70-130	2	25
o-Xylene	**22.8**		µg/l		20.0		114	70-130	0.7	25
Tetrahydrofuran	**17.9**		µg/l		20.0		90	70-130	2	25
Ethyl ether	**18.0**		µg/l		20.0		90	70-130	0.4	50
Tert-amyl methyl ether	**19.2**		µg/l		20.0		96	70-130	3	25
Ethyl tert-butyl ether	**20.8**		µg/l		20.0		104	70-130	1	25
Di-isopropyl ether	**18.1**		µg/l		20.0		91	70-130	3	25
Tert-Butanol / butyl alcohol	**199**		µg/l		200		99	70-130	0.3	25
1,4-Dioxane	**206**		µg/l		200		103	70-130	6	25
trans-1,4-Dichloro-2-butene	**21.2**		µg/l		20.0		106	70-130	0.4	25
Ethanol	**295**		µg/l		400		74	70-130	0.9	30
Surrogate: 4-Bromofluorobenzene	*52.3*		µg/l		*50.0*		*105*	*70-130*		
Surrogate: Toluene-d8	*51.3*		µg/l		*50.0*		*103*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*53.1*		µg/l		*50.0*		*106*	*70-130*		
Surrogate: Dibromofluoromethane	*52.4*		µg/l		*50.0*		*105*	*70-130*		
Batch 1204822 - SW846 5030 Water MS										
Blank (1204822-BLK1)					Prepared & Analyzed: 05-Mar-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0						
Acetone	< 10.0		µg/l	10.0						
Acrylonitrile	< 0.5		µg/l	0.5						
Benzene	< 1.0		µg/l	1.0						
Bromobenzene	< 1.0		µg/l	1.0						
Bromochloromethane	< 1.0		µg/l	1.0						
Bromodichloromethane	< 0.5		µg/l	0.5						
Bromoform	< 1.0		µg/l	1.0						
Bromomethane	< 2.0		µg/l	2.0						
2-Butanone (MEK)	< 10.0		µg/l	10.0						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1204822 - SW846 5030 Water MS										
Blank (1204822-BLK1)					Prepared & Analyzed: 05-Mar-12					
n-Butylbenzene	< 1.0		µg/l	1.0						
sec-Butylbenzene	< 1.0		µg/l	1.0						
tert-Butylbenzene	< 1.0		µg/l	1.0						
Carbon disulfide	< 2.0		µg/l	2.0						
Carbon tetrachloride	< 1.0		µg/l	1.0						
Chlorobenzene	< 1.0		µg/l	1.0						
Chloroethane	< 2.0		µg/l	2.0						
Chloroform	< 1.0		µg/l	1.0						
Chloromethane	< 2.0		µg/l	2.0						
2-Chlorotoluene	< 1.0		µg/l	1.0						
4-Chlorotoluene	< 1.0		µg/l	1.0						
1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0						
Dibromochloromethane	< 0.5		µg/l	0.5						
1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5						
Dibromomethane	< 1.0		µg/l	1.0						
1,2-Dichlorobenzene	< 1.0		µg/l	1.0						
1,3-Dichlorobenzene	< 1.0		µg/l	1.0						
1,4-Dichlorobenzene	< 1.0		µg/l	1.0						
Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0						
1,1-Dichloroethane	< 1.0		µg/l	1.0						
1,2-Dichloroethane	< 1.0		µg/l	1.0						
1,1-Dichloroethene	< 1.0		µg/l	1.0						
cis-1,2-Dichloroethene	< 1.0		µg/l	1.0						
trans-1,2-Dichloroethene	< 1.0		µg/l	1.0						
1,2-Dichloropropane	< 1.0		µg/l	1.0						
1,3-Dichloropropane	< 1.0		µg/l	1.0						
2,2-Dichloropropane	< 1.0		µg/l	1.0						
1,1-Dichloropropene	< 1.0		µg/l	1.0						
cis-1,3-Dichloropropene	< 0.5		µg/l	0.5						
trans-1,3-Dichloropropene	< 0.5		µg/l	0.5						
Ethylbenzene	< 1.0		µg/l	1.0						
Hexachlorobutadiene	< 0.5		µg/l	0.5						
2-Hexanone (MBK)	< 10.0		µg/l	10.0						
Isopropylbenzene	< 1.0		µg/l	1.0						
4-Isopropyltoluene	< 1.0		µg/l	1.0						
Methyl tert-butyl ether	< 1.0		µg/l	1.0						
4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0						
Methylene chloride	< 2.0		µg/l	2.0						
Naphthalene	< 1.0		µg/l	1.0						
n-Propylbenzene	< 1.0		µg/l	1.0						
Styrene	< 1.0		µg/l	1.0						
1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0						
1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5						
Tetrachloroethene	< 1.0		µg/l	1.0						
Toluene	< 1.0		µg/l	1.0						
1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0						
1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0						
1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0						
1,1,1-Trichloroethane	< 1.0		µg/l	1.0						
1,1,2-Trichloroethane	< 1.0		µg/l	1.0						
Trichloroethene	< 1.0		µg/l	1.0						
Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1204822 - SW846 5030 Water MS										
Blank (1204822-BLK1)					Prepared & Analyzed: 05-Mar-12					
1,2,3-Trichloropropane	< 1.0		µg/l	1.0						
1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0						
1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0						
Vinyl chloride	< 1.0		µg/l	1.0						
m,p-Xylene	< 2.0		µg/l	2.0						
o-Xylene	< 1.0		µg/l	1.0						
Tetrahydrofuran	< 2.0		µg/l	2.0						
Ethyl ether	< 1.0		µg/l	1.0						
Tert-amyl methyl ether	< 1.0		µg/l	1.0						
Ethyl tert-butyl ether	< 1.0		µg/l	1.0						
Di-isopropyl ether	< 1.0		µg/l	1.0						
Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0						
1,4-Dioxane	< 20.0		µg/l	20.0						
trans-1,4-Dichloro-2-butene	< 5.0		µg/l	5.0						
Ethanol	< 400		µg/l	400						
Surrogate: 4-Bromofluorobenzene	*29.8*		µg/l		*30.0*		*99*	*70-130*		
Surrogate: Toluene-d8	*30.2*		µg/l		*30.0*		*101*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*27.7*		µg/l		*30.0*		*92*	*70-130*		
Surrogate: Dibromofluoromethane	*29.9*		µg/l		*30.0*		*100*	*70-130*		
LCS (1204822-BS1)					Prepared & Analyzed: 05-Mar-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**20.8**		µg/l		20.0		104	70-130		
Acetone	**21.5**		µg/l		20.0		108	70-130		
Acrylonitrile	**20.0**		µg/l		20.0		100	70-130		
Benzene	**19.4**		µg/l		20.0		97	70-130		
Bromobenzene	**20.8**		µg/l		20.0		104	70-130		
Bromochloromethane	**20.2**		µg/l		20.0		101	70-130		
Bromodichloromethane	**20.6**		µg/l		20.0		103	70-130		
Bromoform	**24.2**		µg/l		20.0		121	70-130		
Bromomethane	**26.2**	QM9	µg/l		20.0		131	70-130		
2-Butanone (MEK)	**20.8**		µg/l		20.0		104	70-130		
n-Butylbenzene	**19.3**		µg/l		20.0		96	70-130		
sec-Butylbenzene	**20.8**		µg/l		20.0		104	70-130		
tert-Butylbenzene	**20.7**		µg/l		20.0		103	70-130		
Carbon disulfide	**21.5**		µg/l		20.0		107	70-130		
Carbon tetrachloride	**21.0**		µg/l		20.0		105	70-130		
Chlorobenzene	**20.3**		µg/l		20.0		102	70-130		
Chloroethane	**18.9**		µg/l		20.0		95	70-130		
Chloroform	**18.9**		µg/l		20.0		95	70-130		
Chloromethane	**18.1**		µg/l		20.0		90	70-130		
2-Chlorotoluene	**19.8**		µg/l		20.0		99	70-130		
4-Chlorotoluene	**19.5**		µg/l		20.0		98	70-130		
1,2-Dibromo-3-chloropropane	**22.2**		µg/l		20.0		111	70-130		
Dibromochloromethane	**20.6**		µg/l		20.0		103	70-130		
1,2-Dibromoethane (EDB)	**20.7**		µg/l		20.0		104	70-130		
Dibromomethane	**19.3**		µg/l		20.0		96	70-130		
1,2-Dichlorobenzene	**19.8**		µg/l		20.0		99	70-130		
1,3-Dichlorobenzene	**20.1**		µg/l		20.0		101	70-130		
1,4-Dichlorobenzene	**19.0**		µg/l		20.0		95	70-130		
Dichlorodifluoromethane (Freon12)	**18.4**		µg/l		20.0		92	70-130		
1,1-Dichloroethane	**19.1**		µg/l		20.0		96	70-130		
1,2-Dichloroethane	**17.2**		µg/l		20.0		86	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1204822 - SW846 5030 Water MS										
LCS (1204822-BS1)						Prepared & Analyzed: 05-Mar-12				
1,1-Dichloroethene	**20.9**		µg/l		20.0		104	70-130		
cis-1,2-Dichloroethene	**19.7**		µg/l		20.0		99	70-130		
trans-1,2-Dichloroethene	**19.9**		µg/l		20.0		99	70-130		
1,2-Dichloropropane	**19.3**		µg/l		20.0		97	70-130		
1,3-Dichloropropane	**19.7**		µg/l		20.0		99	70-130		
2,2-Dichloropropane	**19.2**		µg/l		20.0		96	70-130		
1,1-Dichloropropene	**19.1**		µg/l		20.0		95	70-130		
cis-1,3-Dichloropropene	**21.0**		µg/l		20.0		105	70-130		
trans-1,3-Dichloropropene	**21.3**		µg/l		20.0		107	70-130		
Ethylbenzene	**20.2**		µg/l		20.0		101	70-130		
Hexachlorobutadiene	**19.0**		µg/l		20.0		95	70-130		
2-Hexanone (MBK)	**19.4**		µg/l		20.0		97	70-130		
Isopropylbenzene	**20.2**		µg/l		20.0		101	70-130		
4-Isopropyltoluene	**19.4**		µg/l		20.0		97	70-130		
Methyl tert-butyl ether	**19.7**		µg/l		20.0		99	70-130		
4-Methyl-2-pentanone (MIBK)	**21.2**		µg/l		20.0		106	70-130		
Methylene chloride	**19.4**		µg/l		20.0		97	70-130		
Naphthalene	**20.3**		µg/l		20.0		102	70-130		
n-Propylbenzene	**20.5**		µg/l		20.0		102	70-130		
Styrene	**21.1**		µg/l		20.0		105	70-130		
1,1,1,2-Tetrachloroethane	**22.8**		µg/l		20.0		114	70-130		
1,1,2,2-Tetrachloroethane	**21.8**		µg/l		20.0		109	70-130		
Tetrachloroethene	**19.5**		µg/l		20.0		97	70-130		
Toluene	**18.8**		µg/l		20.0		94	70-130		
1,2,3-Trichlorobenzene	**19.5**		µg/l		20.0		97	70-130		
1,2,4-Trichlorobenzene	**16.4**		µg/l		20.0		82	70-130		
1,3,5-Trichlorobenzene	**16.8**		µg/l		20.0		84	70-130		
1,1,1-Trichloroethane	**19.7**		µg/l		20.0		98	70-130		
1,1,2-Trichloroethane	**20.6**		µg/l		20.0		103	70-130		
Trichloroethene	**19.6**		µg/l		20.0		98	70-130		
Trichlorofluoromethane (Freon 11)	**20.1**		µg/l		20.0		100	70-130		
1,2,3-Trichloropropane	**20.6**		µg/l		20.0		103	70-130		
1,2,4-Trimethylbenzene	**19.2**		µg/l		20.0		96	70-130		
1,3,5-Trimethylbenzene	**20.1**		µg/l		20.0		100	70-130		
Vinyl chloride	**16.4**		µg/l		20.0		82	70-130		
m,p-Xylene	**40.3**		µg/l		40.0		101	70-130		
o-Xylene	**20.0**		µg/l		20.0		100	70-130		
Tetrahydrofuran	**18.5**		µg/l		20.0		93	70-130		
Ethyl ether	**20.9**		µg/l		20.0		104	70-130		
Tert-amyl methyl ether	**19.2**		µg/l		20.0		96	70-130		
Ethyl tert-butyl ether	**19.1**		µg/l		20.0		95	70-130		
Di-isopropyl ether	**18.3**		µg/l		20.0		92	70-130		
Tert-Butanol / butyl alcohol	**220**		µg/l		200		110	70-130		
1,4-Dioxane	**230**		µg/l		200		115	70-130		
trans-1,4-Dichloro-2-butene	**20.4**		µg/l		20.0		102	70-130		
Ethanol	**395**		µg/l		400		99	70-130		
Surrogate: 4-Bromofluorobenzene	*30.1*		µg/l		*30.0*		*100*	*70-130*		
Surrogate: Toluene-d8	*30.1*		µg/l		*30.0*		*100*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*26.8*		µg/l		*30.0*		*89*	*70-130*		
Surrogate: Dibromofluoromethane	*29.7*		µg/l		*30.0*		*99*	*70-130*		
LCS Dup (1204822-BSD1)						Prepared & Analyzed: 05-Mar-12				

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1204822 - SW846 5030 Water MS										
LCS Dup (1204822-BSD1)					Prepared & Analyzed: 05-Mar-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**20.3**		µg/l		20.0		101	70-130	2	25
Acetone	**21.5**		µg/l		20.0		108	70-130	0.1	50
Acrylonitrile	**20.9**		µg/l		20.0		105	70-130	5	25
Benzene	**18.3**		µg/l		20.0		92	70-130	6	25
Bromobenzene	**20.0**		µg/l		20.0		100	70-130	4	25
Bromochloromethane	**20.0**		µg/l		20.0		100	70-130	1	25
Bromodichloromethane	**21.1**		µg/l		20.0		106	70-130	3	25
Bromoform	**24.3**		µg/l		20.0		122	70-130	0.4	25
Bromomethane	**24.1**		µg/l		20.0		121	70-130	8	50
2-Butanone (MEK)	**20.4**		µg/l		20.0		102	70-130	2	50
n-Butylbenzene	**18.5**		µg/l		20.0		92	70-130	4	25
sec-Butylbenzene	**19.6**		µg/l		20.0		98	70-130	6	25
tert-Butylbenzene	**19.8**		µg/l		20.0		99	70-130	4	25
Carbon disulfide	**21.0**		µg/l		20.0		105	70-130	2	25
Carbon tetrachloride	**20.6**		µg/l		20.0		103	70-130	2	25
Chlorobenzene	**19.2**		µg/l		20.0		96	70-130	6	25
Chloroethane	**18.4**		µg/l		20.0		92	70-130	3	50
Chloroform	**18.6**		µg/l		20.0		93	70-130	2	25
Chloromethane	**17.7**		µg/l		20.0		89	70-130	2	25
2-Chlorotoluene	**18.7**		µg/l		20.0		94	70-130	5	25
4-Chlorotoluene	**18.8**		µg/l		20.0		94	70-130	4	25
1,2-Dibromo-3-chloropropane	**21.8**		µg/l		20.0		109	70-130	2	25
Dibromochloromethane	**21.2**		µg/l		20.0		106	70-130	3	50
1,2-Dibromoethane (EDB)	**20.8**		µg/l		20.0		104	70-130	0.5	25
Dibromomethane	**19.1**		µg/l		20.0		96	70-130	0.7	25
1,2-Dichlorobenzene	**19.0**		µg/l		20.0		95	70-130	4	25
1,3-Dichlorobenzene	**19.6**		µg/l		20.0		98	70-130	3	25
1,4-Dichlorobenzene	**18.2**		µg/l		20.0		91	70-130	4	25
Dichlorodifluoromethane (Freon12)	**17.8**		µg/l		20.0		89	70-130	3	50
1,1-Dichloroethane	**18.5**		µg/l		20.0		92	70-130	4	25
1,2-Dichloroethane	**17.9**		µg/l		20.0		89	70-130	4	25
1,1-Dichloroethene	**20.1**		µg/l		20.0		101	70-130	4	25
cis-1,2-Dichloroethene	**18.9**		µg/l		20.0		95	70-130	4	25
trans-1,2-Dichloroethene	**18.4**		µg/l		20.0		92	70-130	8	25
1,2-Dichloropropane	**18.9**		µg/l		20.0		94	70-130	3	25
1,3-Dichloropropane	**19.9**		µg/l		20.0		99	70-130	0.9	25
2,2-Dichloropropane	**19.1**		µg/l		20.0		96	70-130	0.5	25
1,1-Dichloropropene	**18.2**		µg/l		20.0		91	70-130	5	25
cis-1,3-Dichloropropene	**20.6**		µg/l		20.0		103	70-130	2	25
trans-1,3-Dichloropropene	**21.5**		µg/l		20.0		107	70-130	0.7	25
Ethylbenzene	**19.1**		µg/l		20.0		95	70-130	6	25
Hexachlorobutadiene	**18.2**		µg/l		20.0		91	70-130	4	50
2-Hexanone (MBK)	**19.7**		µg/l		20.0		98	70-130	1	25
Isopropylbenzene	**19.2**		µg/l		20.0		96	70-130	6	25
4-Isopropyltoluene	**18.4**		µg/l		20.0		92	70-130	5	25
Methyl tert-butyl ether	**19.5**		µg/l		20.0		97	70-130	1	25
4-Methyl-2-pentanone (MIBK)	**21.6**		µg/l		20.0		108	70-130	2	50
Methylene chloride	**19.6**		µg/l		20.0		98	70-130	1	25
Naphthalene	**19.3**		µg/l		20.0		96	70-130	5	25
n-Propylbenzene	**19.1**		µg/l		20.0		96	70-130	7	25
Styrene	**20.2**		µg/l		20.0		101	70-130	4	25
1,1,1,2-Tetrachloroethane	**21.6**		µg/l		20.0		108	70-130	6	25

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1204822 - SW846 5030 Water MS										
LCS Dup (1204822-BSD1)					Prepared & Analyzed: 05-Mar-12					
1,1,2,2-Tetrachloroethane	**21.3**		µg/l		20.0		106	70-130	2	25
Tetrachloroethene	**19.4**		µg/l		20.0		97	70-130	0.7	25
Toluene	**18.5**		µg/l		20.0		92	70-130	1	25
1,2,3-Trichlorobenzene	**18.6**		µg/l		20.0		93	70-130	5	25
1,2,4-Trichlorobenzene	**16.2**		µg/l		20.0		81	70-130	0.9	25
1,3,5-Trichlorobenzene	**17.0**		µg/l		20.0		85	70-130	1	25
1,1,1-Trichloroethane	**19.4**		µg/l		20.0		97	70-130	1	25
1,1,2-Trichloroethane	**20.4**		µg/l		20.0		102	70-130	1	25
Trichloroethene	**18.8**		µg/l		20.0		94	70-130	4	25
Trichlorofluoromethane (Freon 11)	**19.5**		µg/l		20.0		98	70-130	3	50
1,2,3-Trichloropropane	**19.9**		µg/l		20.0		100	70-130	4	25
1,2,4-Trimethylbenzene	**18.6**		µg/l		20.0		93	70-130	3	25
1,3,5-Trimethylbenzene	**19.3**		µg/l		20.0		96	70-130	4	25
Vinyl chloride	**15.8**		µg/l		20.0		79	70-130	4	25
m,p-Xylene	**37.8**		µg/l		40.0		95	70-130	6	25
o-Xylene	**19.1**		µg/l		20.0		96	70-130	4	25
Tetrahydrofuran	**18.2**		µg/l		20.0		91	70-130	2	25
Ethyl ether	**20.9**		µg/l		20.0		104	70-130	0	50
Tert-amyl methyl ether	**18.9**		µg/l		20.0		94	70-130	2	25
Ethyl tert-butyl ether	**19.2**		µg/l		20.0		96	70-130	0.4	25
Di-isopropyl ether	**18.0**		µg/l		20.0		90	70-130	1	25
Tert-Butanol / butyl alcohol	**213**		µg/l		200		106	70-130	3	25
1,4-Dioxane	**217**		µg/l		200		108	70-130	6	25
trans-1,4-Dichloro-2-butene	**19.6**		µg/l		20.0		98	70-130	4	25
Ethanol	**393**		µg/l		400		98	70-130	0.5	30
Surrogate: 4-Bromofluorobenzene	*29.9*		µg/l		*30.0*		*100*	*70-130*		
Surrogate: Toluene-d8	*31.0*		µg/l		*30.0*		*103*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*28.8*		µg/l		*30.0*		*96*	*70-130*		
Surrogate: Dibromofluoromethane	*30.6*		µg/l		*30.0*		*102*	*70-130*		
Matrix Spike (1204822-MS1)			**Source: SB44536-06**		Prepared & Analyzed: 05-Mar-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**18.9**		µg/l		20.0	BRL	94	70-130		
Acetone	**21.1**		µg/l		20.0	BRL	105	70-130		
Acrylonitrile	**18.1**		µg/l		20.0	BRL	90	70-130		
Benzene	**19.0**		µg/l		20.0	BRL	95	70-130		
Bromobenzene	**20.2**		µg/l		20.0	BRL	101	70-130		
Bromochloromethane	**19.5**		µg/l		20.0	BRL	98	70-130		
Bromodichloromethane	**18.9**		µg/l		20.0	BRL	94	70-130		
Bromoform	**20.5**		µg/l		20.0	BRL	102	70-130		
Bromomethane	**22.0**		µg/l		20.0	BRL	110	70-130		
2-Butanone (MEK)	**20.2**		µg/l		20.0	BRL	101	70-130		
n-Butylbenzene	**20.4**		µg/l		20.0	BRL	102	70-130		
sec-Butylbenzene	**20.9**		µg/l		20.0	BRL	104	70-130		
tert-Butylbenzene	**20.8**		µg/l		20.0	BRL	104	70-130		
Carbon disulfide	**18.8**		µg/l		20.0	BRL	94	70-130		
Carbon tetrachloride	**18.8**		µg/l		20.0	BRL	94	70-130		
Chlorobenzene	**19.7**		µg/l		20.0	BRL	99	70-130		
Chloroethane	**18.0**		µg/l		20.0	BRL	90	70-130		
Chloroform	**18.3**		µg/l		20.0	BRL	91	70-130		
Chloromethane	**17.2**		µg/l		20.0	0.8	82	70-130		
2-Chlorotoluene	**19.7**		µg/l		20.0	BRL	98	70-130		
4-Chlorotoluene	**19.7**		µg/l		20.0	BRL	98	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1204822 - SW846 5030 Water MS										
Matrix Spike (1204822-MS1)			**Source: SB44536-06**		Prepared & Analyzed: 05-Mar-12					
1,2-Dibromo-3-chloropropane	**18.0**		µg/l		20.0	BRL	90	70-130		
Dibromochloromethane	**17.9**		µg/l		20.0	BRL	89	70-130		
1,2-Dibromoethane (EDB)	**19.6**		µg/l		20.0	BRL	98	70-130		
Dibromomethane	**18.5**		µg/l		20.0	BRL	92	70-130		
1,2-Dichlorobenzene	**19.5**		µg/l		20.0	BRL	97	70-130		
1,3-Dichlorobenzene	**20.2**		µg/l		20.0	BRL	101	70-130		
1,4-Dichlorobenzene	**19.3**		µg/l		20.0	BRL	97	70-130		
Dichlorodifluoromethane (Freon12)	**15.1**		µg/l		20.0	BRL	76	70-130		
1,1-Dichloroethane	**18.8**		µg/l		20.0	BRL	94	70-130		
1,2-Dichloroethane	**16.6**		µg/l		20.0	BRL	83	70-130		
1,1-Dichloroethene	**19.6**		µg/l		20.0	BRL	98	70-130		
cis-1,2-Dichloroethene	**19.7**		µg/l		20.0	0.6	96	70-130		
trans-1,2-Dichloroethene	**19.3**		µg/l		20.0	BRL	97	70-130		
1,2-Dichloropropane	**19.4**		µg/l		20.0	BRL	97	70-130		
1,3-Dichloropropane	**18.9**		µg/l		20.0	BRL	94	70-130		
2,2-Dichloropropane	**18.7**		µg/l		20.0	BRL	93	70-130		
1,1-Dichloropropene	**18.7**		µg/l		20.0	BRL	93	70-130		
cis-1,3-Dichloropropene	**19.8**		µg/l		20.0	BRL	99	70-130		
trans-1,3-Dichloropropene	**19.6**		µg/l		20.0	BRL	98	70-130		
Ethylbenzene	**19.8**		µg/l		20.0	BRL	99	70-130		
Hexachlorobutadiene	**19.3**		µg/l		20.0	BRL	96	70-130		
2-Hexanone (MBK)	**17.0**		µg/l		20.0	BRL	85	70-130		
Isopropylbenzene	**20.0**		µg/l		20.0	BRL	100	70-130		
4-Isopropyltoluene	**19.9**		µg/l		20.0	BRL	99	70-130		
Methyl tert-butyl ether	**18.1**		µg/l		20.0	BRL	91	70-130		
4-Methyl-2-pentanone (MIBK)	**18.7**		µg/l		20.0	BRL	94	70-130		
Methylene chloride	**19.0**		µg/l		20.0	BRL	95	70-130		
Naphthalene	**17.1**		µg/l		20.0	BRL	85	70-130		
n-Propylbenzene	**20.5**		µg/l		20.0	BRL	103	70-130		
Styrene	**20.3**		µg/l		20.0	BRL	102	70-130		
1,1,1,2-Tetrachloroethane	**20.4**		µg/l		20.0	BRL	102	70-130		
1,1,2,2-Tetrachloroethane	**20.1**		µg/l		20.0	BRL	101	70-130		
Tetrachloroethene	**20.0**		µg/l		20.0	BRL	100	70-130		
Toluene	**18.6**		µg/l		20.0	BRL	93	70-130		
1,2,3-Trichlorobenzene	**16.7**		µg/l		20.0	BRL	84	70-130		
1,2,4-Trichlorobenzene	**15.7**		µg/l		20.0	BRL	78	70-130		
1,3,5-Trichlorobenzene	**17.5**		µg/l		20.0	BRL	88	70-130		
1,1,1-Trichloroethane	**18.9**		µg/l		20.0	BRL	95	70-130		
1,1,2-Trichloroethane	**19.6**		µg/l		20.0	BRL	98	70-130		
Trichloroethene	**20.8**		µg/l		20.0	1.6	96	70-130		
Trichlorofluoromethane (Freon 11)	**17.7**		µg/l		20.0	BRL	88	70-130		
1,2,3-Trichloropropane	**18.9**		µg/l		20.0	BRL	94	70-130		
1,2,4-Trimethylbenzene	**19.3**		µg/l		20.0	BRL	97	70-130		
1,3,5-Trimethylbenzene	**20.0**		µg/l		20.0	BRL	100	70-130		
Vinyl chloride	**15.4**		µg/l		20.0	BRL	77	70-130		
m,p-Xylene	**40.2**		µg/l		40.0	BRL	100	70-130		
o-Xylene	**20.0**		µg/l		20.0	BRL	100	70-130		
Tetrahydrofuran	**16.5**		µg/l		20.0	BRL	82	70-130		
Ethyl ether	**18.6**		µg/l		20.0	BRL	93	70-130		
Tert-amyl methyl ether	**17.9**		µg/l		20.0	BRL	90	70-130		
Ethyl tert-butyl ether	**18.1**		µg/l		20.0	BRL	90	70-130		
Di-isopropyl ether	**17.5**		µg/l		20.0	BRL	87	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1204822 - SW846 5030 Water MS										
Matrix Spike (1204822-MS1)			**Source: SB44536-06**		Prepared & Analyzed: 05-Mar-12					
Tert-Butanol / butyl alcohol	**180**		µg/l		200	BRL	90	70-130		
1,4-Dioxane	**207**		µg/l		200	BRL	104	70-130		
trans-1,4-Dichloro-2-butene	**17.7**		µg/l		20.0	BRL	89	70-130		
Ethanol	**356**		µg/l		400	BRL	89	70-130		
Surrogate: 4-Bromofluorobenzene	*30.5*		µg/l		*30.0*		*102*	*70-130*		
Surrogate: Toluene-d8	*30.0*		µg/l		*30.0*		*100*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*26.9*		µg/l		*30.0*		*90*	*70-130*		
Surrogate: Dibromofluoromethane	*30.1*		µg/l		*30.0*		*100*	*70-130*		
Matrix Spike Dup (1204822-MSD1)			**Source: SB44536-06**		Prepared & Analyzed: 05-Mar-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**24.0**		µg/l		20.0	BRL	120	70-130	24	30
Acetone	**22.2**		µg/l		20.0	BRL	111	70-130	5	30
Acrylonitrile	**18.9**		µg/l		20.0	BRL	95	70-130	5	30
Benzene	**21.3**		µg/l		20.0	BRL	107	70-130	12	30
Bromobenzene	**22.5**		µg/l		20.0	BRL	113	70-130	11	30
Bromochloromethane	**21.9**		µg/l		20.0	BRL	110	70-130	12	30
Bromodichloromethane	**21.6**		µg/l		20.0	BRL	108	70-130	14	30
Bromoform	**22.6**		µg/l		20.0	BRL	113	70-130	10	30
Bromomethane	**25.8**		µg/l		20.0	BRL	129	70-130	16	30
2-Butanone (MEK)	**20.0**		µg/l		20.0	BRL	100	70-130	0.9	30
n-Butylbenzene	**23.6**		µg/l		20.0	BRL	118	70-130	15	30
sec-Butylbenzene	**23.7**		µg/l		20.0	BRL	118	70-130	12	30
tert-Butylbenzene	**23.4**		µg/l		20.0	BRL	117	70-130	12	30
Carbon disulfide	**21.4**		µg/l		20.0	BRL	107	70-130	13	30
Carbon tetrachloride	**22.5**		µg/l		20.0	BRL	112	70-130	18	30
Chlorobenzene	**21.8**		µg/l		20.0	BRL	109	70-130	10	30
Chloroethane	**20.1**		µg/l		20.0	BRL	101	70-130	11	30
Chloroform	**20.0**		µg/l		20.0	BRL	100	70-130	9	30
Chloromethane	**19.2**		µg/l		20.0	0.8	92	70-130	12	30
2-Chlorotoluene	**21.8**		µg/l		20.0	BRL	109	70-130	10	30
4-Chlorotoluene	**21.9**		µg/l		20.0	BRL	109	70-130	11	30
1,2-Dibromo-3-chloropropane	**20.2**		µg/l		20.0	BRL	101	70-130	11	30
Dibromochloromethane	**20.2**		µg/l		20.0	BRL	101	70-130	12	30
1,2-Dibromoethane (EDB)	**21.5**		µg/l		20.0	BRL	107	70-130	9	30
Dibromomethane	**20.1**		µg/l		20.0	BRL	100	70-130	8	30
1,2-Dichlorobenzene	**21.5**		µg/l		20.0	BRL	108	70-130	10	30
1,3-Dichlorobenzene	**22.3**		µg/l		20.0	BRL	112	70-130	10	30
1,4-Dichlorobenzene	**21.2**		µg/l		20.0	BRL	106	70-130	9	30
Dichlorodifluoromethane (Freon12)	**19.4**		µg/l		20.0	BRL	97	70-130	25	30
1,1-Dichloroethane	**20.9**		µg/l		20.0	BRL	104	70-130	10	30
1,2-Dichloroethane	**18.2**		µg/l		20.0	BRL	91	70-130	9	30
1,1-Dichloroethene	**22.3**		µg/l		20.0	BRL	112	70-130	13	30
cis-1,2-Dichloroethene	**22.4**		µg/l		20.0	0.6	109	70-130	13	30
trans-1,2-Dichloroethene	**21.5**		µg/l		20.0	BRL	107	70-130	10	30
1,2-Dichloropropane	**21.2**		µg/l		20.0	BRL	106	70-130	9	30
1,3-Dichloropropane	**20.9**		µg/l		20.0	BRL	104	70-130	10	30
2,2-Dichloropropane	**21.2**		µg/l		20.0	BRL	106	70-130	13	30
1,1-Dichloropropene	**21.7**		µg/l		20.0	BRL	109	70-130	15	30
cis-1,3-Dichloropropene	**22.2**		µg/l		20.0	BRL	111	70-130	11	30
trans-1,3-Dichloropropene	**22.1**		µg/l		20.0	BRL	110	70-130	12	30
Ethylbenzene	**22.4**		µg/l		20.0	BRL	112	70-130	12	30
Hexachlorobutadiene	**23.2**		µg/l		20.0	BRL	116	70-130	18	30

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1204822 - SW846 5030 Water MS										
Matrix Spike Dup (1204822-MSD1)			**Source: SB44536-06**		Prepared & Analyzed: 05-Mar-12					
2-Hexanone (MBK)	**18.5**		µg/l		20.0	BRL	93	70-130	8	30
Isopropylbenzene	**22.5**		µg/l		20.0	BRL	113	70-130	12	30
4-Isopropyltoluene	**22.6**		µg/l		20.0	BRL	113	70-130	13	30
Methyl tert-butyl ether	**19.8**		µg/l		20.0	BRL	99	70-130	9	30
4-Methyl-2-pentanone (MIBK)	**20.8**		µg/l		20.0	BRL	104	70-130	10	30
Methylene chloride	**20.9**		µg/l		20.0	BRL	104	70-130	9	30
Naphthalene	**19.6**		µg/l		20.0	BRL	98	70-130	14	30
n-Propylbenzene	**23.2**		µg/l		20.0	BRL	116	70-130	12	30
Styrene	**21.2**		µg/l		20.0	BRL	106	70-130	4	30
1,1,1,2-Tetrachloroethane	**23.1**		µg/l		20.0	BRL	115	70-130	12	30
1,1,2,2-Tetrachloroethane	**21.6**		µg/l		20.0	BRL	108	70-130	7	30
Tetrachloroethene	**22.7**		µg/l		20.0	BRL	114	70-130	13	30
Toluene	**20.7**		µg/l		20.0	BRL	103	70-130	11	30
1,2,3-Trichlorobenzene	**19.7**		µg/l		20.0	BRL	99	70-130	17	30
1,2,4-Trichlorobenzene	**18.2**		µg/l		20.0	BRL	91	70-130	15	30
1,3,5-Trichlorobenzene	**20.0**		µg/l		20.0	BRL	100	70-130	13	30
1,1,1-Trichloroethane	**21.8**		µg/l		20.0	BRL	109	70-130	14	30
1,1,2-Trichloroethane	**20.9**		µg/l		20.0	BRL	104	70-130	6	30
Trichloroethene	**23.6**		µg/l		20.0	1.6	110	70-130	14	30
Trichlorofluoromethane (Freon 11)	**21.2**		µg/l		20.0	BRL	106	70-130	18	30
1,2,3-Trichloropropane	**20.4**		µg/l		20.0	BRL	102	70-130	7	30
1,2,4-Trimethylbenzene	**21.6**		µg/l		20.0	BRL	108	70-130	11	30
1,3,5-Trimethylbenzene	**22.4**		µg/l		20.0	BRL	112	70-130	11	30
Vinyl chloride	**17.8**		µg/l		20.0	BRL	89	70-130	14	30
m,p-Xylene	**44.8**		µg/l		40.0	BRL	112	70-130	11	30
o-Xylene	**21.7**		µg/l		20.0	BRL	109	70-130	8	30
Tetrahydrofuran	**17.9**		µg/l		20.0	BRL	89	70-130	8	30
Ethyl ether	**20.7**		µg/l		20.0	BRL	104	70-130	11	30
Tert-amyl methyl ether	**19.7**		µg/l		20.0	BRL	99	70-130	10	30
Ethyl tert-butyl ether	**19.9**		µg/l		20.0	BRL	100	70-130	10	30
Di-isopropyl ether	**19.4**		µg/l		20.0	BRL	97	70-130	11	30
Tert-Butanol / butyl alcohol	**195**		µg/l		200	BRL	97	70-130	8	30
1,4-Dioxane	**215**		µg/l		200	BRL	108	70-130	4	30
trans-1,4-Dichloro-2-butene	**19.2**		µg/l		20.0	BRL	96	70-130	8	30
Ethanol	**359**		µg/l		400	BRL	90	70-130	0.9	30
Surrogate: 4-Bromofluorobenzene	*30.0*		µg/l		*30.0*		*100*	*70-130*		
Surrogate: Toluene-d8	*30.0*		µg/l		*30.0*		*100*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*26.9*		µg/l		*30.0*		*90*	*70-130*		
Surrogate: Dibromofluoromethane	*29.8*		µg/l		*30.0*		*99*	*70-130*		
Batch 1204892 - VPH - EPA 5030B										
Blank (1204892-BLK1)					Prepared & Analyzed: 06-Mar-12					
C5-C8 Aliphatic Hydrocarbons	< 75.0		µg/l	75.0						
C9-C12 Aliphatic Hydrocarbons	< 25.0		µg/l	25.0						
C9-C10 Aromatic Hydrocarbons	< 25.0		µg/l	25.0						
Unadjusted C5-C8 Aliphatic Hydrocarbons	< 75.0		µg/l	75.0						
Unadjusted C9-C12 Aliphatic Hydrocarbons	< 25.0		µg/l	25.0						
Benzene	< 5.0		µg/l	5.0						
Ethylbenzene	< 5.0		µg/l	5.0						
Methyl tert-butyl ether	< 5.0		µg/l	5.0						
Naphthalene	< 5.0		µg/l	5.0						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1204892 - VPH - EPA 5030B										
Blank (1204892-BLK1)					Prepared & Analyzed: 06-Mar-12					
Toluene	< 5.0		µg/l	5.0						
m,p-Xylene	< 10.0		µg/l	10.0						
o-Xylene	< 5.0		µg/l	5.0						
2-Methylpentane	< 5.0		µg/l	5.0						
n-Nonane	< 10.0		µg/l	10.0						
n-Pentane	< 10.0		µg/l	10.0						
1,2,4-Trimethylbenzene	< 5.0		µg/l	5.0						
2,2,4-Trimethylpentane	< 5.0		µg/l	5.0						
n-Butylcyclohexane	< 5.0		µg/l	5.0						
n-Decane	< 5.0		µg/l	5.0						
Surrogate: 2,5-Dibromotoluene (FID)	*47.8*		µg/l		*50.0*		*96*	*70-130*		
Surrogate: 2,5-Dibromotoluene (PID)	*40.9*		µg/l		*50.0*		*82*	*70-130*		
LCS (1204892-BS1)					Prepared & Analyzed: 06-Mar-12					
C5-C8 Aliphatic Hydrocarbons	**77.1**		µg/l		60.0		128	70-130		
C9-C12 Aliphatic Hydrocarbons	**61.1**		µg/l		60.0		102	70-130		
C9-C10 Aromatic Hydrocarbons	**17.6**		µg/l		20.0		88	70-130		
Unadjusted C5-C8 Aliphatic Hydrocarbons	**217**		µg/l		200		109	70-130		
Unadjusted C9-C12 Aliphatic Hydrocarbons	**78.7**		µg/l		80.0		98	70-130		
Benzene	**21.9**		µg/l		20.0		109	70-130		
Ethylbenzene	**19.1**		µg/l		20.0		95	70-130		
Methyl tert-butyl ether	**22.3**		µg/l		20.0		111	70-130		
Naphthalene	**18.0**		µg/l		20.0		90	70-130		
Toluene	**20.5**		µg/l		20.0		103	70-130		
m,p-Xylene	**37.7**		µg/l		40.0		94	70-130		
o-Xylene	**18.8**		µg/l		20.0		94	70-130		
2-Methylpentane	**24.6**		µg/l		20.0		123	70-130		
n-Nonane	**20.9**		µg/l		20.0		105	70-130		
n-Pentane	**24.0**		µg/l		20.0		120	70-130		
1,2,4-Trimethylbenzene	**18.3**		µg/l		20.0		92	70-130		
2,2,4-Trimethylpentane	**23.5**		µg/l		20.0		118	70-130		
n-Butylcyclohexane	**19.6**		µg/l		20.0		98	70-130		
n-Decane	**16.6**		µg/l		20.0		83	70-130		
Surrogate: 2,5-Dibromotoluene (FID)	*46.1*		µg/l		*50.0*		*92*	*70-130*		
Surrogate: 2,5-Dibromotoluene (PID)	*38.7*		µg/l		*50.0*		*77*	*70-130*		
LCS Dup (1204892-BSD1)					Prepared & Analyzed: 06-Mar-12					
C5-C8 Aliphatic Hydrocarbons	**67.7**		µg/l		60.0		113	70-130	13	25
C9-C12 Aliphatic Hydrocarbons	**62.7**		µg/l		60.0		104	70-130	2	25
C9-C10 Aromatic Hydrocarbons	**17.3**		µg/l		20.0		87	70-130	2	25
Unadjusted C5-C8 Aliphatic Hydrocarbons	**202**		µg/l		200		101	70-130	8	25
Unadjusted C9-C12 Aliphatic Hydrocarbons	**80.0**		µg/l		80.0		100	70-130	2	25
Benzene	**20.2**		µg/l		20.0		101	70-130	8	25
Ethylbenzene	**18.5**		µg/l		20.0		92	70-130	3	25
Methyl tert-butyl ether	**20.3**		µg/l		20.0		102	70-130	9	25
Naphthalene	**17.3**		µg/l		20.0		86	70-130	4	25
Toluene	**19.6**		µg/l		20.0		98	70-130	5	25
m,p-Xylene	**36.8**		µg/l		40.0		92	70-130	2	25
o-Xylene	**18.5**		µg/l		20.0		93	70-130	2	25
2-Methylpentane	**22.5**		µg/l		20.0		112	70-130	9	25
n-Nonane	**19.7**		µg/l		20.0		98	70-130	6	25

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1204892 - VPH - EPA 5030B										
LCS Dup (1204892-BSD1)					Prepared & Analyzed: 06-Mar-12					
n-Pentane	**21.8**		µg/l		20.0		109	70-130	10	25
1,2,4-Trimethylbenzene	**17.9**		µg/l		20.0		89	70-130	3	25
2,2,4-Trimethylpentane	**21.6**		µg/l		20.0		108	70-130	8	25
n-Butylcyclohexane	**18.7**		µg/l		20.0		93	70-130	5	25
n-Decane	**17.0**		µg/l		20.0		85	70-130	3	25
Surrogate: 2,5-Dibromotoluene (FID)	*44.9*		µg/l		*50.0*		*90*	*70-130*		
Surrogate: 2,5-Dibromotoluene (PID)	*38.7*		µg/l		*50.0*		*77*	*70-130*		
Batch 1204913 - SW846 5030 Water MS										
Blank (1204913-BLK1)					Prepared & Analyzed: 06-Mar-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0						
Acetone	< 10.0		µg/l	10.0						
Acrylonitrile	< 0.5		µg/l	0.5						
Benzene	< 1.0		µg/l	1.0						
Bromobenzene	< 1.0		µg/l	1.0						
Bromochloromethane	< 1.0		µg/l	1.0						
Bromodichloromethane	< 0.5		µg/l	0.5						
Bromoform	< 1.0		µg/l	1.0						
Bromomethane	< 2.0		µg/l	2.0						
2-Butanone (MEK)	< 10.0		µg/l	10.0						
n-Butylbenzene	< 1.0		µg/l	1.0						
sec-Butylbenzene	< 1.0		µg/l	1.0						
tert-Butylbenzene	< 1.0		µg/l	1.0						
Carbon disulfide	< 2.0		µg/l	2.0						
Carbon tetrachloride	< 1.0		µg/l	1.0						
Chlorobenzene	< 1.0		µg/l	1.0						
Chloroethane	< 2.0		µg/l	2.0						
Chloroform	< 1.0		µg/l	1.0						
Chloromethane	< 2.0		µg/l	2.0						
2-Chlorotoluene	< 1.0		µg/l	1.0						
4-Chlorotoluene	< 1.0		µg/l	1.0						
1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0						
Dibromochloromethane	< 0.5		µg/l	0.5						
1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5						
Dibromomethane	< 1.0		µg/l	1.0						
1,2-Dichlorobenzene	< 1.0		µg/l	1.0						
1,3-Dichlorobenzene	< 1.0		µg/l	1.0						
1,4-Dichlorobenzene	< 1.0		µg/l	1.0						
Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0						
1,1-Dichloroethane	< 1.0		µg/l	1.0						
1,2-Dichloroethane	< 1.0		µg/l	1.0						
1,1-Dichloroethene	< 1.0		µg/l	1.0						
cis-1,2-Dichloroethene	< 1.0		µg/l	1.0						
trans-1,2-Dichloroethene	< 1.0		µg/l	1.0						
1,2-Dichloropropane	< 1.0		µg/l	1.0						
1,3-Dichloropropane	< 1.0		µg/l	1.0						
2,2-Dichloropropane	< 1.0		µg/l	1.0						
1,1-Dichloropropene	< 1.0		µg/l	1.0						
cis-1,3-Dichloropropene	< 0.5		µg/l	0.5						
trans-1,3-Dichloropropene	< 0.5		µg/l	0.5						
Ethylbenzene	< 1.0		µg/l	1.0						
Hexachlorobutadiene	< 0.5		µg/l	0.5						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1204913 - SW846 5030 Water MS										
Blank (1204913-BLK1)					Prepared & Analyzed: 06-Mar-12					
2-Hexanone (MBK)	< 10.0		µg/l	10.0						
Isopropylbenzene	< 1.0		µg/l	1.0						
4-Isopropyltoluene	< 1.0		µg/l	1.0						
Methyl tert-butyl ether	< 1.0		µg/l	1.0						
4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0						
Methylene chloride	< 2.0		µg/l	2.0						
Naphthalene	< 1.0		µg/l	1.0						
n-Propylbenzene	< 1.0		µg/l	1.0						
Styrene	< 1.0		µg/l	1.0						
1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0						
1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5						
Tetrachloroethene	< 1.0		µg/l	1.0						
Toluene	< 1.0		µg/l	1.0						
1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0						
1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0						
1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0						
1,1,1-Trichloroethane	< 1.0		µg/l	1.0						
1,1,2-Trichloroethane	< 1.0		µg/l	1.0						
Trichloroethene	< 1.0		µg/l	1.0						
Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0						
1,2,3-Trichloropropane	< 1.0		µg/l	1.0						
1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0						
1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0						
Vinyl chloride	< 1.0		µg/l	1.0						
m,p-Xylene	< 2.0		µg/l	2.0						
o-Xylene	< 1.0		µg/l	1.0						
Tetrahydrofuran	< 2.0		µg/l	2.0						
Ethyl ether	< 1.0		µg/l	1.0						
Tert-amyl methyl ether	< 1.0		µg/l	1.0						
Ethyl tert-butyl ether	< 1.0		µg/l	1.0						
Di-isopropyl ether	< 1.0		µg/l	1.0						
Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0						
1,4-Dioxane	< 20.0		µg/l	20.0						
trans-1,4-Dichloro-2-butene	< 5.0		µg/l	5.0						
Ethanol	< 400		µg/l	400						
Surrogate: 4-Bromofluorobenzene	*30.2*		µg/l		*30.0*		*101*	*70-130*		
Surrogate: Toluene-d8	*29.6*		µg/l		*30.0*		*99*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*27.0*		µg/l		*30.0*		*90*	*70-130*		
Surrogate: Dibromofluoromethane	*29.4*		µg/l		*30.0*		*98*	*70-130*		
LCS (1204913-BS1)					Prepared & Analyzed: 06-Mar-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**18.9**		µg/l		20.0		94	70-130		
Acetone	**22.8**		µg/l		20.0		114	70-130		
Acrylonitrile	**19.9**		µg/l		20.0		100	70-130		
Benzene	**19.5**		µg/l		20.0		97	70-130		
Bromobenzene	**20.6**		µg/l		20.0		103	70-130		
Bromochloromethane	**20.3**		µg/l		20.0		102	70-130		
Bromodichloromethane	**21.1**		µg/l		20.0		106	70-130		
Bromoform	**23.8**		µg/l		20.0		119	70-130		
Bromomethane	**25.5**		µg/l		20.0		127	70-130		
2-Butanone (MEK)	**21.0**		µg/l		20.0		105	70-130		
n-Butylbenzene	**18.3**		µg/l		20.0		91	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1204913 - SW846 5030 Water MS										
LCS (1204913-BS1)					Prepared & Analyzed: 06-Mar-12					
sec-Butylbenzene	**20.0**		µg/l		20.0		100	70-130		
tert-Butylbenzene	**20.4**		µg/l		20.0		102	70-130		
Carbon disulfide	**22.0**		µg/l		20.0		110	70-130		
Carbon tetrachloride	**20.3**		µg/l		20.0		102	70-130		
Chlorobenzene	**19.7**		µg/l		20.0		98	70-130		
Chloroethane	**19.2**		µg/l		20.0		96	70-130		
Chloroform	**18.8**		µg/l		20.0		94	70-130		
Chloromethane	**18.0**		µg/l		20.0		90	70-130		
2-Chlorotoluene	**19.4**		µg/l		20.0		97	70-130		
4-Chlorotoluene	**19.3**		µg/l		20.0		97	70-130		
1,2-Dibromo-3-chloropropane	**22.1**		µg/l		20.0		110	70-130		
Dibromochloromethane	**20.7**		µg/l		20.0		104	70-130		
1,2-Dibromoethane (EDB)	**20.8**		µg/l		20.0		104	70-130		
Dibromomethane	**19.6**		µg/l		20.0		98	70-130		
1,2-Dichlorobenzene	**19.7**		µg/l		20.0		98	70-130		
1,3-Dichlorobenzene	**19.9**		µg/l		20.0		99	70-130		
1,4-Dichlorobenzene	**18.9**		µg/l		20.0		94	70-130		
Dichlorodifluoromethane (Freon12)	**17.5**		µg/l		20.0		88	70-130		
1,1-Dichloroethane	**19.2**		µg/l		20.0		96	70-130		
1,2-Dichloroethane	**17.5**		µg/l		20.0		87	70-130		
1,1-Dichloroethene	**20.2**		µg/l		20.0		101	70-130		
cis-1,2-Dichloroethene	**19.8**		µg/l		20.0		99	70-130		
trans-1,2-Dichloroethene	**20.0**		µg/l		20.0		100	70-130		
1,2-Dichloropropane	**19.4**		µg/l		20.0		97	70-130		
1,3-Dichloropropane	**19.4**		µg/l		20.0		97	70-130		
2,2-Dichloropropane	**18.6**		µg/l		20.0		93	70-130		
1,1-Dichloropropene	**18.8**		µg/l		20.0		94	70-130		
cis-1,3-Dichloropropene	**21.1**		µg/l		20.0		105	70-130		
trans-1,3-Dichloropropene	**21.2**		µg/l		20.0		106	70-130		
Ethylbenzene	**19.7**		µg/l		20.0		98	70-130		
Hexachlorobutadiene	**18.3**		µg/l		20.0		91	70-130		
2-Hexanone (MBK)	**19.3**		µg/l		20.0		96	70-130		
Isopropylbenzene	**19.7**		µg/l		20.0		98	70-130		
4-Isopropyltoluene	**18.8**		µg/l		20.0		94	70-130		
Methyl tert-butyl ether	**19.7**		µg/l		20.0		98	70-130		
4-Methyl-2-pentanone (MIBK)	**20.5**		µg/l		20.0		102	70-130		
Methylene chloride	**19.4**		µg/l		20.0		97	70-130		
Naphthalene	**18.9**		µg/l		20.0		94	70-130		
n-Propylbenzene	**19.7**		µg/l		20.0		99	70-130		
Styrene	**20.7**		µg/l		20.0		104	70-130		
1,1,1,2-Tetrachloroethane	**22.0**		µg/l		20.0		110	70-130		
1,1,2,2-Tetrachloroethane	**21.1**		µg/l		20.0		106	70-130		
Tetrachloroethene	**19.1**		µg/l		20.0		95	70-130		
Toluene	**18.9**		µg/l		20.0		95	70-130		
1,2,3-Trichlorobenzene	**18.3**		µg/l		20.0		92	70-130		
1,2,4-Trichlorobenzene	**15.9**		µg/l		20.0		80	70-130		
1,3,5-Trichlorobenzene	**16.7**		µg/l		20.0		84	70-130		
1,1,1-Trichloroethane	**19.3**		µg/l		20.0		97	70-130		
1,1,2-Trichloroethane	**20.2**		µg/l		20.0		101	70-130		
Trichloroethene	**19.5**		µg/l		20.0		98	70-130		
Trichlorofluoromethane (Freon 11)	**18.8**		µg/l		20.0		94	70-130		
1,2,3-Trichloropropane	**20.1**		µg/l		20.0		101	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1204913 - SW846 5030 Water MS										
LCS (1204913-BS1)					Prepared & Analyzed: 06-Mar-12					
1,2,4-Trimethylbenzene	**19.1**		µg/l		20.0		95	70-130		
1,3,5-Trimethylbenzene	**19.8**		µg/l		20.0		99	70-130		
Vinyl chloride	**16.4**		µg/l		20.0		82	70-130		
m,p-Xylene	**39.2**		µg/l		40.0		98	70-130		
o-Xylene	**19.8**		µg/l		20.0		99	70-130		
Tetrahydrofuran	**18.9**		µg/l		20.0		94	70-130		
Ethyl ether	**20.4**		µg/l		20.0		102	70-130		
Tert-amyl methyl ether	**19.1**		µg/l		20.0		96	70-130		
Ethyl tert-butyl ether	**19.5**		µg/l		20.0		98	70-130		
Di-isopropyl ether	**18.8**		µg/l		20.0		94	70-130		
Tert-Butanol / butyl alcohol	**209**		µg/l		200		104	70-130		
1,4-Dioxane	**238**		µg/l		200		119	70-130		
trans-1,4-Dichloro-2-butene	**19.3**		µg/l		20.0		96	70-130		
Ethanol	**389**		µg/l		400		97	70-130		
Surrogate: 4-Bromofluorobenzene	*29.8*		µg/l		*30.0*		*99*	*70-130*		
Surrogate: Toluene-d8	*30.0*		µg/l		*30.0*		*100*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*26.6*		µg/l		*30.0*		*89*	*70-130*		
Surrogate: Dibromofluoromethane	*30.3*		µg/l		*30.0*		*101*	*70-130*		
LCS Dup (1204913-BSD1)					Prepared & Analyzed: 06-Mar-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**19.5**		µg/l		20.0		97	70-130	3	25
Acetone	**22.0**		µg/l		20.0		110	70-130	4	50
Acrylonitrile	**18.5**		µg/l		20.0		92	70-130	7	25
Benzene	**19.2**		µg/l		20.0		96	70-130	1	25
Bromobenzene	**20.2**		µg/l		20.0		101	70-130	2	25
Bromochloromethane	**19.9**		µg/l		20.0		100	70-130	2	25
Bromodichloromethane	**20.0**		µg/l		20.0		100	70-130	6	25
Bromoform	**23.0**		µg/l		20.0		115	70-130	3	25
Bromomethane	**25.0**		µg/l		20.0		125	70-130	2	50
2-Butanone (MEK)	**19.6**		µg/l		20.0		98	70-130	7	50
n-Butylbenzene	**17.8**		µg/l		20.0		89	70-130	2	25
sec-Butylbenzene	**19.8**		µg/l		20.0		99	70-130	1	25
tert-Butylbenzene	**20.0**		µg/l		20.0		100	70-130	2	25
Carbon disulfide	**21.9**		µg/l		20.0		110	70-130	0.5	25
Carbon tetrachloride	**19.9**		µg/l		20.0		99	70-130	2	25
Chlorobenzene	**19.6**		µg/l		20.0		98	70-130	0.7	25
Chloroethane	**18.7**		µg/l		20.0		94	70-130	3	50
Chloroform	**18.4**		µg/l		20.0		92	70-130	2	25
Chloromethane	**17.5**		µg/l		20.0		88	70-130	3	25
2-Chlorotoluene	**19.0**		µg/l		20.0		95	70-130	2	25
4-Chlorotoluene	**19.0**		µg/l		20.0		95	70-130	2	25
1,2-Dibromo-3-chloropropane	**19.9**		µg/l		20.0		100	70-130	10	25
Dibromochloromethane	**19.7**		µg/l		20.0		99	70-130	5	50
1,2-Dibromoethane (EDB)	**20.1**		µg/l		20.0		100	70-130	3	25
Dibromomethane	**19.0**		µg/l		20.0		95	70-130	3	25
1,2-Dichlorobenzene	**19.7**		µg/l		20.0		98	70-130	0.2	25
1,3-Dichlorobenzene	**19.5**		µg/l		20.0		97	70-130	2	25
1,4-Dichlorobenzene	**18.7**		µg/l		20.0		94	70-130	1	25
Dichlorodifluoromethane (Freon12)	**18.4**		µg/l		20.0		92	70-130	5	50
1,1-Dichloroethane	**19.1**		µg/l		20.0		95	70-130	0.8	25
1,2-Dichloroethane	**16.9**		µg/l		20.0		85	70-130	3	25
1,1-Dichloroethene	**19.9**		µg/l		20.0		99	70-130	1	25

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1204913 - SW846 5030 Water MS										
LCS Dup (1204913-BSD1)					Prepared & Analyzed: 06-Mar-12					
cis-1,2-Dichloroethene	**19.3**		µg/l		20.0		96	70-130	3	25
trans-1,2-Dichloroethene	**19.8**		µg/l		20.0		99	70-130	1	25
1,2-Dichloropropane	**19.4**		µg/l		20.0		97	70-130	0.05	25
1,3-Dichloropropane	**19.0**		µg/l		20.0		95	70-130	2	25
2,2-Dichloropropane	**18.3**		µg/l		20.0		92	70-130	1	25
1,1-Dichloropropene	**18.8**		µg/l		20.0		94	70-130	0.1	25
cis-1,3-Dichloropropene	**20.4**		µg/l		20.0		102	70-130	3	25
trans-1,3-Dichloropropene	**20.3**		µg/l		20.0		102	70-130	4	25
Ethylbenzene	**19.4**		µg/l		20.0		97	70-130	1	25
Hexachlorobutadiene	**18.0**		µg/l		20.0		90	70-130	2	50
2-Hexanone (MBK)	**17.6**		µg/l		20.0		88	70-130	9	25
Isopropylbenzene	**19.4**		µg/l		20.0		97	70-130	2	25
4-Isopropyltoluene	**18.8**		µg/l		20.0		94	70-130	0.2	25
Methyl tert-butyl ether	**19.3**		µg/l		20.0		96	70-130	2	25
4-Methyl-2-pentanone (MIBK)	**20.4**		µg/l		20.0		102	70-130	0.1	50
Methylene chloride	**19.4**		µg/l		20.0		97	70-130	0.3	25
Naphthalene	**18.3**		µg/l		20.0		92	70-130	3	25
n-Propylbenzene	**19.4**		µg/l		20.0		97	70-130	1	25
Styrene	**20.4**		µg/l		20.0		102	70-130	2	25
1,1,1,2-Tetrachloroethane	**21.8**		µg/l		20.0		109	70-130	1	25
1,1,2,2-Tetrachloroethane	**20.5**		µg/l		20.0		102	70-130	3	25
Tetrachloroethene	**19.4**		µg/l		20.0		97	70-130	1	25
Toluene	**18.4**		µg/l		20.0		92	70-130	3	25
1,2,3-Trichlorobenzene	**17.1**		µg/l		20.0		85	70-130	7	25
1,2,4-Trichlorobenzene	**15.1**		µg/l		20.0		76	70-130	5	25
1,3,5-Trichlorobenzene	**16.3**		µg/l		20.0		82	70-130	2	25
1,1,1-Trichloroethane	**19.4**		µg/l		20.0		97	70-130	0.7	25
1,1,2-Trichloroethane	**19.3**		µg/l		20.0		97	70-130	5	25
Trichloroethene	**18.9**		µg/l		20.0		94	70-130	3	25
Trichlorofluoromethane (Freon 11)	**19.0**		µg/l		20.0		95	70-130	1	50
1,2,3-Trichloropropane	**19.4**		µg/l		20.0		97	70-130	4	25
1,2,4-Trimethylbenzene	**18.9**		µg/l		20.0		94	70-130	1	25
1,3,5-Trimethylbenzene	**19.5**		µg/l		20.0		97	70-130	1	25
Vinyl chloride	**16.5**		µg/l		20.0		82	70-130	0.9	25
m,p-Xylene	**38.5**		µg/l		40.0		96	70-130	2	25
o-Xylene	**19.6**		µg/l		20.0		98	70-130	0.9	25
Tetrahydrofuran	**17.5**		µg/l		20.0		88	70-130	7	25
Ethyl ether	**19.7**		µg/l		20.0		98	70-130	3	50
Tert-amyl methyl ether	**18.6**		µg/l		20.0		93	70-130	3	25
Ethyl tert-butyl ether	**18.8**		µg/l		20.0		94	70-130	3	25
Di-isopropyl ether	**18.6**		µg/l		20.0		93	70-130	1	25
Tert-Butanol / butyl alcohol	**191**		µg/l		200		96	70-130	9	25
1,4-Dioxane	**206**		µg/l		200		103	70-130	14	25
trans-1,4-Dichloro-2-butene	**18.0**		µg/l		20.0		90	70-130	7	25
Ethanol	**380**		µg/l		400		95	70-130	2	30
Surrogate: 4-Bromofluorobenzene	*29.6*		µg/l		*30.0*		*99*	*70-130*		
Surrogate: Toluene-d8	*29.7*		µg/l		*30.0*		*99*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*26.3*		µg/l		*30.0*		*88*	*70-130*		
Surrogate: Dibromofluoromethane	*29.4*		µg/l		*30.0*		*98*	*70-130*		
Matrix Spike (1204913-MS1)			**Source: SB44536-05**		Prepared & Analyzed: 06-Mar-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**20.8**		µg/l		20.0	BRL	104	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1204913 - SW846 5030 Water MS										
Matrix Spike (1204913-MS1)			**Source: SB44536-05**		Prepared & Analyzed: 06-Mar-12					
Acetone	**18.9**		µg/l		20.0	4.4	72	70-130		
Acrylonitrile	**16.3**		µg/l		20.0	BRL	82	70-130		
Benzene	**18.9**		µg/l		20.0	BRL	94	70-130		
Bromobenzene	**19.9**		µg/l		20.0	BRL	99	70-130		
Bromochloromethane	**19.5**		µg/l		20.0	BRL	98	70-130		
Bromodichloromethane	**20.0**		µg/l		20.0	BRL	100	70-130		
Bromoform	**19.6**		µg/l		20.0	BRL	98	70-130		
Bromomethane	**20.2**		µg/l		20.0	BRL	101	70-130		
2-Butanone (MEK)	**18.3**		µg/l		20.0	BRL	91	70-130		
n-Butylbenzene	**21.1**		µg/l		20.0	BRL	105	70-130		
sec-Butylbenzene	**21.2**		µg/l		20.0	BRL	106	70-130		
tert-Butylbenzene	**20.9**		µg/l		20.0	BRL	104	70-130		
Carbon disulfide	**18.0**		µg/l		20.0	BRL	90	70-130		
Carbon tetrachloride	**19.8**		µg/l		20.0	BRL	99	70-130		
Chlorobenzene	**19.6**		µg/l		20.0	BRL	98	70-130		
Chloroethane	**17.6**		µg/l		20.0	BRL	88	70-130		
Chloroform	**18.2**		µg/l		20.0	BRL	91	70-130		
Chloromethane	**16.6**		µg/l		20.0	0.3	82	70-130		
2-Chlorotoluene	**19.6**		µg/l		20.0	BRL	98	70-130		
4-Chlorotoluene	**19.5**		µg/l		20.0	BRL	98	70-130		
1,2-Dibromo-3-chloropropane	**17.9**		µg/l		20.0	BRL	89	70-130		
Dibromochloromethane	**17.8**		µg/l		20.0	BRL	89	70-130		
1,2-Dibromoethane (EDB)	**18.9**		µg/l		20.0	BRL	94	70-130		
Dibromomethane	**18.4**		µg/l		20.0	BRL	92	70-130		
1,2-Dichlorobenzene	**19.4**		µg/l		20.0	BRL	97	70-130		
1,3-Dichlorobenzene	**19.9**		µg/l		20.0	BRL	99	70-130		
1,4-Dichlorobenzene	**19.0**		µg/l		20.0	BRL	95	70-130		
Dichlorodifluoromethane (Freon12)	**17.9**		µg/l		20.0	BRL	89	70-130		
1,1-Dichloroethane	**18.8**		µg/l		20.0	BRL	94	70-130		
1,2-Dichloroethane	**16.3**		µg/l		20.0	BRL	81	70-130		
1,1-Dichloroethene	**20.0**		µg/l		20.0	BRL	100	70-130		
cis-1,2-Dichloroethene	**53.3**		µg/l		20.0	33.0	101	70-130		
trans-1,2-Dichloroethene	**20.2**		µg/l		20.0	1.3	95	70-130		
1,2-Dichloropropane	**19.0**		µg/l		20.0	BRL	95	70-130		
1,3-Dichloropropane	**18.2**		µg/l		20.0	BRL	91	70-130		
2,2-Dichloropropane	**19.5**		µg/l		20.0	BRL	97	70-130		
1,1-Dichloropropene	**19.1**		µg/l		20.0	BRL	96	70-130		
cis-1,3-Dichloropropene	**19.8**		µg/l		20.0	BRL	99	70-130		
trans-1,3-Dichloropropene	**19.4**		µg/l		20.0	BRL	97	70-130		
Ethylbenzene	**19.9**		µg/l		20.0	BRL	99	70-130		
Hexachlorobutadiene	**20.4**		µg/l		20.0	BRL	102	70-130		
2-Hexanone (MBK)	**16.4**		µg/l		20.0	BRL	82	70-130		
Isopropylbenzene	**20.2**		µg/l		20.0	BRL	101	70-130		
4-Isopropyltoluene	**20.4**		µg/l		20.0	BRL	102	70-130		
Methyl tert-butyl ether	**17.4**		µg/l		20.0	BRL	87	70-130		
4-Methyl-2-pentanone (MIBK)	**18.6**		µg/l		20.0	BRL	93	70-130		
Methylene chloride	**18.6**		µg/l		20.0	BRL	93	70-130		
Naphthalene	**16.7**		µg/l		20.0	BRL	84	70-130		
n-Propylbenzene	**20.7**		µg/l		20.0	BRL	104	70-130		
Styrene	**20.2**		µg/l		20.0	BRL	101	70-130		
1,1,1,2-Tetrachloroethane	**20.5**		µg/l		20.0	BRL	103	70-130		
1,1,2,2-Tetrachloroethane	**19.6**		µg/l		20.0	BRL	98	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1204913 - SW846 5030 Water MS										
Matrix Spike (1204913-MS1)			**Source: SB44536-05**		Prepared & Analyzed: 06-Mar-12					
Tetrachloroethene	**24.6**		µg/l		20.0	3.7	105	70-130		
Toluene	**18.2**		µg/l		20.0	BRL	91	70-130		
1,2,3-Trichlorobenzene	**16.6**		µg/l		20.0	BRL	83	70-130		
1,2,4-Trichlorobenzene	**15.5**		µg/l		20.0	BRL	77	70-130		
1,3,5-Trichlorobenzene	**17.6**		µg/l		20.0	BRL	88	70-130		
1,1,1-Trichloroethane	**19.5**		µg/l		20.0	BRL	97	70-130		
1,1,2-Trichloroethane	**18.9**		µg/l		20.0	BRL	94	70-130		
Trichloroethene	**67.7**		µg/l		20.0	46.4	106	70-130		
Trichlorofluoromethane (Freon 11)	**18.9**		µg/l		20.0	BRL	95	70-130		
1,2,3-Trichloropropane	**18.2**		µg/l		20.0	BRL	91	70-130		
1,2,4-Trimethylbenzene	**19.1**		µg/l		20.0	BRL	96	70-130		
1,3,5-Trimethylbenzene	**20.0**		µg/l		20.0	BRL	100	70-130		
Vinyl chloride	**25.0**		µg/l		20.0	9.4	78	70-130		
m,p-Xylene	**39.7**		µg/l		40.0	BRL	99	70-130		
o-Xylene	**19.7**		µg/l		20.0	BRL	98	70-130		
Tetrahydrofuran	**15.3**		µg/l		20.0	BRL	76	70-130		
Ethyl ether	**17.9**		µg/l		20.0	BRL	89	70-130		
Tert-amyl methyl ether	**17.5**		µg/l		20.0	BRL	87	70-130		
Ethyl tert-butyl ether	**17.6**		µg/l		20.0	BRL	88	70-130		
Di-isopropyl ether	**17.4**		µg/l		20.0	BRL	87	70-130		
Tert-Butanol / butyl alcohol	**172**		µg/l		200	BRL	86	70-130		
1,4-Dioxane	**186**		µg/l		200	BRL	93	70-130		
trans-1,4-Dichloro-2-butene	**17.2**		µg/l		20.0	BRL	86	70-130		
Ethanol	**333**		µg/l		400	BRL	83	70-130		
Surrogate: 4-Bromofluorobenzene	*30.2*		µg/l		*30.0*		*101*	*70-130*		
Surrogate: Toluene-d8	*29.4*		µg/l		*30.0*		*98*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*26.8*		µg/l		*30.0*		*89*	*70-130*		
Surrogate: Dibromofluoromethane	*29.7*		µg/l		*30.0*		*99*	*70-130*		
Matrix Spike Dup (1204913-MSD1)			**Source: SB44536-05**		Prepared & Analyzed: 06-Mar-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**23.2**		µg/l		20.0	BRL	116	70-130	11	30
Acetone	**22.8**		µg/l		20.0	4.4	92	70-130	24	30
Acrylonitrile	**19.1**		µg/l		20.0	BRL	96	70-130	16	30
Benzene	**20.9**		µg/l		20.0	BRL	104	70-130	10	30
Bromobenzene	**22.5**		µg/l		20.0	BRL	113	70-130	13	30
Bromochloromethane	**22.0**		µg/l		20.0	BRL	110	70-130	12	30
Bromodichloromethane	**22.1**		µg/l		20.0	BRL	110	70-130	10	30
Bromoform	**22.5**		µg/l		20.0	BRL	113	70-130	14	30
Bromomethane	**24.7**		µg/l		20.0	BRL	124	70-130	20	30
2-Butanone (MEK)	**20.6**		µg/l		20.0	BRL	103	70-130	12	30
n-Butylbenzene	**23.5**		µg/l		20.0	BRL	117	70-130	11	30
sec-Butylbenzene	**23.7**		µg/l		20.0	BRL	119	70-130	11	30
tert-Butylbenzene	**23.3**		µg/l		20.0	BRL	116	70-130	11	30
Carbon disulfide	**20.5**		µg/l		20.0	BRL	103	70-130	13	30
Carbon tetrachloride	**22.1**		µg/l		20.0	BRL	110	70-130	11	30
Chlorobenzene	**21.6**		µg/l		20.0	BRL	108	70-130	10	30
Chloroethane	**20.6**		µg/l		20.0	BRL	103	70-130	16	30
Chloroform	**20.5**		µg/l		20.0	BRL	102	70-130	12	30
Chloromethane	**19.0**		µg/l		20.0	0.3	94	70-130	14	30
2-Chlorotoluene	**21.9**		µg/l		20.0	BRL	109	70-130	11	30
4-Chlorotoluene	**21.8**		µg/l		20.0	BRL	109	70-130	11	30
1,2-Dibromo-3-chloropropane	**20.6**		µg/l		20.0	BRL	103	70-130	14	30

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1204913 - SW846 5030 Water MS										
Matrix Spike Dup (1204913-MSD1)			**Source: SB44536-05**		Prepared & Analyzed: 06-Mar-12					
Dibromochloromethane	**20.8**		µg/l		20.0	BRL	104	70-130	16	30
1,2-Dibromoethane (EDB)	**21.4**		µg/l		20.0	BRL	107	70-130	13	30
Dibromomethane	**20.0**		µg/l		20.0	BRL	100	70-130	8	30
1,2-Dichlorobenzene	**21.1**		µg/l		20.0	BRL	105	70-130	8	30
1,3-Dichlorobenzene	**22.2**		µg/l		20.0	BRL	111	70-130	11	30
1,4-Dichlorobenzene	**21.3**		µg/l		20.0	BRL	106	70-130	11	30
Dichlorodifluoromethane (Freon12)	**20.9**		µg/l		20.0	BRL	104	70-130	15	30
1,1-Dichloroethane	**21.2**		µg/l		20.0	BRL	106	70-130	12	30
1,2-Dichloroethane	**18.2**		µg/l		20.0	BRL	91	70-130	11	30
1,1-Dichloroethene	**22.1**		µg/l		20.0	BRL	111	70-130	10	30
cis-1,2-Dichloroethene	**57.5**		µg/l		20.0	33.0	122	70-130	19	30
trans-1,2-Dichloroethene	**22.9**		µg/l		20.0	1.3	108	70-130	13	30
1,2-Dichloropropane	**21.2**		µg/l		20.0	BRL	106	70-130	11	30
1,3-Dichloropropane	**20.1**		µg/l		20.0	BRL	101	70-130	10	30
2,2-Dichloropropane	**21.6**		µg/l		20.0	BRL	108	70-130	11	30
1,1-Dichloropropene	**21.2**		µg/l		20.0	BRL	106	70-130	10	30
cis-1,3-Dichloropropene	**22.0**		µg/l		20.0	BRL	110	70-130	11	30
trans-1,3-Dichloropropene	**22.0**		µg/l		20.0	BRL	110	70-130	13	30
Ethylbenzene	**22.1**		µg/l		20.0	BRL	110	70-130	11	30
Hexachlorobutadiene	**22.2**		µg/l		20.0	BRL	111	70-130	9	30
2-Hexanone (MBK)	**18.3**		µg/l		20.0	BRL	91	70-130	11	30
Isopropylbenzene	**22.4**		µg/l		20.0	BRL	112	70-130	10	30
4-Isopropyltoluene	**22.6**		µg/l		20.0	BRL	113	70-130	11	30
Methyl tert-butyl ether	**20.1**		µg/l		20.0	BRL	100	70-130	14	30
4-Methyl-2-pentanone (MIBK)	**20.0**		µg/l		20.0	BRL	100	70-130	7	30
Methylene chloride	**20.9**		µg/l		20.0	BRL	104	70-130	12	30
Naphthalene	**18.8**		µg/l		20.0	BRL	94	70-130	12	30
n-Propylbenzene	**23.1**		µg/l		20.0	BRL	115	70-130	11	30
Styrene	**22.8**		µg/l		20.0	BRL	114	70-130	12	30
1,1,1,2-Tetrachloroethane	**23.1**		µg/l		20.0	BRL	115	70-130	12	30
1,1,2,2-Tetrachloroethane	**22.2**		µg/l		20.0	BRL	111	70-130	12	30
Tetrachloroethene	**27.0**		µg/l		20.0	3.7	116	70-130	11	30
Toluene	**20.6**		µg/l		20.0	BRL	103	70-130	12	30
1,2,3-Trichlorobenzene	**18.5**		µg/l		20.0	BRL	93	70-130	11	30
1,2,4-Trichlorobenzene	**17.4**		µg/l		20.0	BRL	87	70-130	11	30
1,3,5-Trichlorobenzene	**19.3**		µg/l		20.0	BRL	97	70-130	10	30
1,1,1-Trichloroethane	**21.5**		µg/l		20.0	BRL	107	70-130	10	30
1,1,2-Trichloroethane	**21.0**		µg/l		20.0	BRL	105	70-130	10	30
Trichloroethene	**72.7**	QM7	µg/l		20.0	46.4	131	70-130	21	30
Trichlorofluoromethane (Freon 11)	**21.9**		µg/l		20.0	BRL	110	70-130	15	30
1,2,3-Trichloropropane	**20.3**		µg/l		20.0	BRL	102	70-130	11	30
1,2,4-Trimethylbenzene	**21.4**		µg/l		20.0	BRL	107	70-130	11	30
1,3,5-Trimethylbenzene	**22.3**		µg/l		20.0	BRL	112	70-130	11	30
Vinyl chloride	**28.7**		µg/l		20.0	9.4	96	70-130	21	30
m,p-Xylene	**44.6**		µg/l		40.0	BRL	111	70-130	12	30
o-Xylene	**22.0**		µg/l		20.0	BRL	110	70-130	11	30
Tetrahydrofuran	**18.0**		µg/l		20.0	BRL	90	70-130	16	30
Ethyl ether	**20.6**		µg/l		20.0	BRL	103	70-130	14	30
Tert-amyl methyl ether	**19.5**		µg/l		20.0	BRL	97	70-130	11	30
Ethyl tert-butyl ether	**20.0**		µg/l		20.0	BRL	100	70-130	13	30
Di-isopropyl ether	**19.8**		µg/l		20.0	BRL	99	70-130	13	30
Tert-Butanol / butyl alcohol	**194**		µg/l		200	BRL	97	70-130	13	30

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1204913 - SW846 5030 Water MS										
Matrix Spike Dup (1204913-MSD1)			**Source: SB44536-05**		Prepared & Analyzed: 06-Mar-12					
1,4-Dioxane	**210**		µg/l		200	BRL	105	70-130	12	30
trans-1,4-Dichloro-2-butene	**19.2**		µg/l		20.0	BRL	96	70-130	11	30
Ethanol	**382**		µg/l		400	BRL	96	70-130	14	30
Surrogate: 4-Bromofluorobenzene	*30.0*		µg/l		*30.0*		*100*	*70-130*		
Surrogate: Toluene-d8	*30.0*		µg/l		*30.0*		*100*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*27.1*		µg/l		*30.0*		*90*	*70-130*		
Surrogate: Dibromofluoromethane	*30.7*		µg/l		*30.0*		*102*	*70-130*		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1204572 - SW846 3510C										
Blank (1204572-BLK1)					Prepared & Analyzed: 01-Mar-12					
C9-C18 Aliphatic Hydrocarbons	< 50.0		µg/l	50.0						
C19-C36 Aliphatic Hydrocarbons	< 50.0		µg/l	50.0						
C11-C22 Aromatic Hydrocarbons	< 50.0		µg/l	50.0						
Unadjusted C11-C22 Aromatic Hydrocarbons	< 50.0		µg/l	50.0						
Total Petroleum Hydrocarbons	< 50.0		µg/l	50.0						
Unadjusted Total Petroleum Hydrocarbons	< 50.0		µg/l	50.0						
Naphthalene	< 2.50		µg/l	2.50						
2-Methylnaphthalene	< 2.50		µg/l	2.50						
Acenaphthylene	< 2.50		µg/l	2.50						
Acenaphthene	< 2.50		µg/l	2.50						
Fluorene	< 2.50		µg/l	2.50						
Phenanthrene	< 2.50		µg/l	2.50						
Anthracene	< 2.50		µg/l	2.50						
Fluoranthene	< 2.50		µg/l	2.50						
Pyrene	< 2.50		µg/l	2.50						
Benzo (a) anthracene	< 2.50		µg/l	2.50						
Chrysene	< 2.50		µg/l	2.50						
Benzo (b) fluoranthene	< 2.50		µg/l	2.50						
Benzo (k) fluoranthene	< 2.50		µg/l	2.50						
Benzo (a) pyrene	< 2.50		µg/l	2.50						
Indeno (1,2,3-cd) pyrene	< 2.50		µg/l	2.50						
Dibenzo (a,h) anthracene	< 2.50		µg/l	2.50						
Benzo (g,h,i) perylene	< 2.50		µg/l	2.50						
n-Nonane (C9)	< 2.50		µg/l	2.50						
n-Decane	< 2.50		µg/l	2.50						
n-Dodecane	< 2.50		µg/l	2.50						
n-Tetradecane	< 2.50		µg/l	2.50						
n-Hexadecane	< 2.50		µg/l	2.50						
n-Octadecane	< 2.50		µg/l	2.50						
n-Nonadecane	< 2.50		µg/l	2.50						
n-Eicosane	< 2.50		µg/l	2.50						
n-Docosane	< 2.50		µg/l	2.50						
n-Tetracosane	< 2.50		µg/l	2.50						
n-Hexacosane	< 2.50		µg/l	2.50						
n-Octacosane	< 2.50		µg/l	2.50						
n-Triacontane	< 2.50		µg/l	2.50						
n-Hexatriacontane	< 2.50		µg/l	2.50						
Naphthalene (aliphatic fraction)	**0.00**		µg/l							
2-Methylnaphthalene (aliphatic fraction)	**0.00**		µg/l							
Surrogate: 1-Chlorooctadecane	*29.2*		µg/l		*50.0*		*58*	*40-140*		
Surrogate: Ortho-Terphenyl	*43.1*		µg/l		*50.0*		*86*	*40-140*		
Surrogate: 2-Fluorobiphenyl	*24.4*		µg/l		*40.0*		*61*	*40-140*		
LCS (1204572-BS1)					Prepared & Analyzed: 01-Mar-12					
C9-C18 Aliphatic Hydrocarbons	**421**		µg/l	50.0	600		70	40-140		
C19-C36 Aliphatic Hydrocarbons	**515**		µg/l	50.0	800		64	40-140		
C11-C22 Aromatic Hydrocarbons	**1300**		µg/l	50.0	1700		76	40-140		
Naphthalene	**51.2**		µg/l	2.50	100		51	40-140		
2-Methylnaphthalene	**48.2**		µg/l	2.50	100		48	40-140		
Acenaphthylene	**59.0**		µg/l	2.50	100		59	40-140		
Acenaphthene	**62.8**		µg/l	2.50	100		63	40-140		
Fluorene	**68.3**		µg/l	2.50	100		68	40-140		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1204572 - SW846 3510C										
LCS (1204572-BS1)					Prepared & Analyzed: 01-Mar-12					
Phenanthrene	**75.5**		µg/l	2.50	100		75	40-140		
Anthracene	**74.5**		µg/l	2.50	100		75	40-140		
Fluoranthene	**77.1**		µg/l	2.50	100		77	40-140		
Pyrene	**75.8**		µg/l	2.50	100		76	40-140		
Benzo (a) anthracene	**80.0**		µg/l	2.50	100		80	40-140		
Chrysene	**76.8**		µg/l	2.50	100		77	40-140		
Benzo (b) fluoranthene	**88.1**		µg/l	2.50	100		88	40-140		
Benzo (k) fluoranthene	**68.4**		µg/l	2.50	100		68	40-140		
Benzo (a) pyrene	**76.3**		µg/l	2.50	100		76	40-140		
Indeno (1,2,3-cd) pyrene	**86.8**		µg/l	2.50	100		87	40-140		
Dibenzo (a,h) anthracene	**86.6**		µg/l	2.50	100		87	40-140		
Benzo (g,h,i) perylene	**88.6**		µg/l	2.50	100		89	40-140		
n-Nonane (C9)	**54.5**		µg/l	2.50	100		55	30-140		
n-Decane	**61.7**		µg/l	2.50	100		62	40-140		
n-Dodecane	**67.1**		µg/l	2.50	100		67	40-140		
n-Tetradecane	**74.5**		µg/l	2.50	100		74	40-140		
n-Hexadecane	**81.4**		µg/l	2.50	100		81	40-140		
n-Octadecane	**83.3**		µg/l	2.50	100		83	40-140		
n-Nonadecane	**83.8**		µg/l	2.50	100		84	40-140		
n-Eicosane	**84.2**		µg/l	2.50	100		84	40-140		
n-Docosane	**84.0**		µg/l	2.50	100		84	40-140		
n-Tetracosane	**82.4**		µg/l	2.50	100		82	40-140		
n-Hexacosane	**81.5**		µg/l	2.50	100		82	40-140		
n-Octacosane	**82.6**		µg/l	2.50	100		83	40-140		
n-Triacontane	**80.2**		µg/l	2.50	100		80	40-140		
n-Hexatriacontane	**83.5**		µg/l	2.50	100		84	40-140		
Naphthalene (aliphatic fraction)	**0.00**		µg/l					0-200		
2-Methylnaphthalene (aliphatic fraction)	**0.00**		µg/l					0-200		
Surrogate: 1-Chlorooctadecane	*41.3*		µg/l		*50.0*		*83*	*40-140*		
Surrogate: Ortho-Terphenyl	*34.6*		µg/l		*50.0*		*69*	*40-140*		
Surrogate: 2-Fluorobiphenyl	*20.4*		µg/l		*40.0*		*51*	*40-140*		
Naphthalene Breakthrough	0.00		%					0-5		
2-Methylnaphthalene Breakthrough	0.00		%					0-5		
LCS (1204572-BS2)					Prepared & Analyzed: 01-Mar-12					
C9-C18 Aliphatic Hydrocarbons	**401**		µg/l	50.0	600		67	40-140		
C19-C36 Aliphatic Hydrocarbons	**410**		µg/l	50.0	800		51	40-140		
C11-C22 Aromatic Hydrocarbons	**990**		µg/l	50.0	1700		58	40-140		
Naphthalene	**40.1**		µg/l	2.50	100		40	40-140		
2-Methylnaphthalene	**40.4**		µg/l	2.50	100		40	40-140		
Acenaphthylene	**55.4**		µg/l	2.50	100		55	40-140		
Acenaphthene	**50.4**		µg/l	2.50	100		50	40-140		
Fluorene	**61.7**		µg/l	2.50	100		62	40-140		
Phenanthrene	**65.4**		µg/l	2.50	100		65	40-140		
Anthracene	**59.7**		µg/l	2.50	100		60	40-140		
Fluoranthene	**65.8**		µg/l	2.50	100		66	40-140		
Pyrene	**68.6**		µg/l	2.50	100		69	40-140		
Benzo (a) anthracene	**72.6**		µg/l	2.50	100		73	40-140		
Chrysene	**69.6**		µg/l	2.50	100		70	40-140		
Benzo (b) fluoranthene	**77.4**		µg/l	2.50	100		77	40-140		
Benzo (k) fluoranthene	**71.0**		µg/l	2.50	100		71	40-140		
Benzo (a) pyrene	**72.3**		µg/l	2.50	100		72	40-140		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1204572 - SW846 3510C										
LCS (1204572-BS2)					Prepared & Analyzed: 01-Mar-12					
Indeno (1,2,3-cd) pyrene	**79.6**		µg/l	2.50	100		80	40-140		
Dibenzo (a,h) anthracene	**78.6**		µg/l	2.50	100		79	40-140		
Benzo (g,h,i) perylene	**78.3**		µg/l	2.50	100		78	40-140		
n-Nonane (C9)	**43.0**		µg/l	2.50	100		43	30-140		
n-Decane	**49.8**		µg/l	2.50	100		50	40-140		
n-Dodecane	**56.3**		µg/l	2.50	100		56	40-140		
n-Tetradecane	**62.2**		µg/l	2.50	100		62	40-140		
n-Hexadecane	**68.7**		µg/l	2.50	100		69	40-140		
n-Octadecane	**70.4**		µg/l	2.50	100		70	40-140		
n-Nonadecane	**70.4**		µg/l	2.50	100		70	40-140		
n-Eicosane	**70.2**		µg/l	2.50	100		70	40-140		
n-Docosane	**68.9**		µg/l	2.50	100		69	40-140		
n-Tetracosane	**66.3**		µg/l	2.50	100		66	40-140		
n-Hexacosane	**65.1**		µg/l	2.50	100		65	40-140		
n-Octacosane	**66.1**		µg/l	2.50	100		66	40-140		
n-Triacontane	**65.4**		µg/l	2.50	100		65	40-140		
n-Hexatriacontane	**70.0**		µg/l	2.50	100		70	40-140		
Naphthalene (aliphatic fraction)	**0.00**		µg/l					0-200		
2-Methylnaphthalene (aliphatic fraction)	**0.00**		µg/l					0-200		
Surrogate: 1-Chlorooctadecane	*34.4*		µg/l		*50.0*		*69*	*40-140*		
Surrogate: Ortho-Terphenyl	*30.0*		µg/l		*50.0*		*60*	*40-140*		
Surrogate: 2-Fluorobiphenyl	*25.6*		µg/l		*40.0*		*64*	*40-140*		
Naphthalene Breakthrough	0.00		%					0-5		
2-Methylnaphthalene Breakthrough	0.00		%					0-5		
LCS Dup (1204572-BSD1)					Prepared & Analyzed: 01-Mar-12					
C9-C18 Aliphatic Hydrocarbons	**403**		µg/l	50.0	600		67	40-140	4	25
C19-C36 Aliphatic Hydrocarbons	**514**		µg/l	50.0	800		64	40-140	0.2	25
C11-C22 Aromatic Hydrocarbons	**1050**		µg/l	50.0	1700		62	40-140	21	25
Naphthalene	**47.6**		µg/l	2.50	100		48	40-140	7	25
2-Methylnaphthalene	**48.5**		µg/l	2.50	100		49	40-140	0.6	25
Acenaphthylene	**58.2**		µg/l	2.50	100		58	40-140	1	25
Acenaphthene	**58.6**		µg/l	2.50	100		59	40-140	7	25
Fluorene	**62.6**		µg/l	2.50	100		63	40-140	9	25
Phenanthrene	**65.4**		µg/l	2.50	100		65	40-140	14	25
Anthracene	**63.9**		µg/l	2.50	100		64	40-140	15	25
Fluoranthene	**67.3**		µg/l	2.50	100		67	40-140	14	25
Pyrene	**63.6**		µg/l	2.50	100		64	40-140	17	25
Benzo (a) anthracene	**68.6**		µg/l	2.50	100		69	40-140	15	25
Chrysene	**64.3**		µg/l	2.50	100		64	40-140	18	25
Benzo (b) fluoranthene	**66.1**	QR2	µg/l	2.50	100		66	40-140	29	25
Benzo (k) fluoranthene	**66.7**		µg/l	2.50	100		67	40-140	2	25
Benzo (a) pyrene	**63.8**		µg/l	2.50	100		64	40-140	18	25
Indeno (1,2,3-cd) pyrene	**71.1**		µg/l	2.50	100		71	40-140	20	25
Dibenzo (a,h) anthracene	**70.1**		µg/l	2.50	100		70	40-140	21	25
Benzo (g,h,i) perylene	**69.6**		µg/l	2.50	100		70	40-140	24	25
n-Nonane (C9)	**52.0**		µg/l	2.50	100		52	30-140	5	25
n-Decane	**60.5**		µg/l	2.50	100		61	40-140	2	25
n-Dodecane	**66.1**		µg/l	2.50	100		66	40-140	2	25
n-Tetradecane	**72.4**		µg/l	2.50	100		72	40-140	3	25
n-Hexadecane	**78.6**		µg/l	2.50	100		79	40-140	4	25
n-Octadecane	**81.2**		µg/l	2.50	100		81	40-140	3	25

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1204572 - SW846 3510C										
LCS Dup (1204572-BSD1)					Prepared & Analyzed: 01-Mar-12					
n-Nonadecane	**82.0**		µg/l	2.50	100		82	40-140	2	25
n-Eicosane	**82.8**		µg/l	2.50	100		83	40-140	2	25
n-Docosane	**83.6**		µg/l	2.50	100		84	40-140	0.5	25
n-Tetracosane	**83.1**		µg/l	2.50	100		83	40-140	0.8	25
n-Hexacosane	**83.7**		µg/l	2.50	100		84	40-140	3	25
n-Octacosane	**86.3**		µg/l	2.50	100		86	40-140	4	25
n-Triacontane	**83.8**		µg/l	2.50	100		84	40-140	4	25
n-Hexatriacontane	**75.6**		µg/l	2.50	100		76	40-140	10	25
Naphthalene (aliphatic fraction)	**0.00**		µg/l					0-200		200
2-Methylnaphthalene (aliphatic fraction)	**0.00**		µg/l					0-200		200
Surrogate: 1-Chlorooctadecane	*40.6*		µg/l		*50.0*		*81*	*40-140*		
Surrogate: Ortho-Terphenyl	*29.0*		µg/l		*50.0*		*58*	*40-140*		
Surrogate: 2-Fluorobiphenyl	*26.1*		µg/l		*40.0*		*65*	*40-140*		
Naphthalene Breakthrough	0.00		%					0-5		
2-Methylnaphthalene Breakthrough	0.00		%					0-5		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1204826 - SW846 3005A										
Blank (1204826-BLK1)					Prepared & Analyzed: 05-Mar-12					
Lead	< 0.0075		mg/l	0.0075						
Nickel	< 0.0050		mg/l	0.0050						
Manganese	< 0.0020		mg/l	0.0020						
Zinc	< 0.0050		mg/l	0.0050						
Magnesium	< 0.0100		mg/l	0.0100						
Potassium	< 0.500		mg/l	0.500						
Iron	< 0.0150		mg/l	0.0150						
Selenium	< 0.0150		mg/l	0.0150						
Antimony	< 0.0060		mg/l	0.0060						
Thallium	< 0.0050		mg/l	0.0050						
Sodium	< 0.250		mg/l	0.250						
Silver	< 0.0050		mg/l	0.0050						
Copper	< 0.0050		mg/l	0.0050						
Cobalt	< 0.0050		mg/l	0.0050						
Cadmium	< 0.0025		mg/l	0.0025						
Calcium	< 0.100		mg/l	0.100						
Beryllium	< 0.0020		mg/l	0.0020						
Barium	< 0.0050		mg/l	0.0050						
Arsenic	< 0.0040		mg/l	0.0040						
Chromium	< 0.0050		mg/l	0.0050						
Vanadium	< 0.0050		mg/l	0.0050						
Aluminum	< 0.0250		mg/l	0.0250						
LCS (1204826-BS1)					Prepared & Analyzed: 05-Mar-12					
Thallium	**1.34**		mg/l	0.0050	1.25		107	85-115		
Antimony	**1.23**		mg/l	0.0060	1.25		99	85-115		
Lead	**1.34**		mg/l	0.0075	1.25		108	85-115		
Nickel	**1.29**		mg/l	0.0050	1.25		103	85-115		
Sodium	**6.14**		mg/l	0.250	6.25		98	85-115		
Manganese	**1.34**		mg/l	0.0020	1.25		107	85-115		
Magnesium	**1.37**		mg/l	0.0100	1.25		109	85-115		
Potassium	**12.0**		mg/l	0.500	12.5		96	85-115		
Iron	**1.39**		mg/l	0.0150	1.25		111	85-115		
Selenium	**1.28**		mg/l	0.0150	1.25		103	85-115		
Zinc	**1.36**		mg/l	0.0050	1.25		109	85-115		
Copper	**1.29**		mg/l	0.0050	1.25		103	85-115		
Silver	**1.28**		mg/l	0.0050	1.25		103	85-115		
Aluminum	**1.33**		mg/l	0.0250	1.25		106	85-115		
Arsenic	**1.29**		mg/l	0.0040	1.25		103	85-115		
Barium	**1.30**		mg/l	0.0050	1.25		104	85-115		
Beryllium	**1.40**		mg/l	0.0020	1.25		112	85-115		
Calcium	**6.28**		mg/l	0.100	6.25		100	85-115		
Cadmium	**1.36**		mg/l	0.0025	1.25		109	85-115		
Cobalt	**1.31**		mg/l	0.0050	1.25		105	85-115		
Chromium	**1.34**		mg/l	0.0050	1.25		107	85-115		
Vanadium	**1.26**		mg/l	0.0050	1.25		101	85-115		
LCS Dup (1204826-BSD1)					Prepared & Analyzed: 05-Mar-12					
Thallium	**1.33**		mg/l	0.0050	1.25		107	85-115	0.5	20
Selenium	**1.27**		mg/l	0.0150	1.25		102	85-115	0.9	20
Antimony	**1.23**		mg/l	0.0060	1.25		98	85-115	0.5	20
Lead	**1.33**		mg/l	0.0075	1.25		106	85-115	1	20
Nickel	**1.28**		mg/l	0.0050	1.25		103	85-115	0.4	20

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1204826 - SW846 3005A										
LCS Dup (1204826-BSD1)					Prepared & Analyzed: 05-Mar-12					
Sodium	**6.15**		mg/l	0.250	6.25		98	85-115	0.08	20
Magnesium	**1.37**		mg/l	0.0100	1.25		110	85-115	0.2	20
Iron	**1.42**		mg/l	0.0150	1.25		113	85-115	2	20
Potassium	**12.0**		mg/l	0.500	12.5		96	85-115	0.3	20
Zinc	**1.36**		mg/l	0.0050	1.25		108	85-115	0.6	20
Manganese	**1.33**		mg/l	0.0020	1.25		107	85-115	0.5	20
Silver	**1.27**		mg/l	0.0050	1.25		102	85-115	0.8	20
Vanadium	**1.25**		mg/l	0.0050	1.25		100	85-115	0.3	20
Copper	**1.28**		mg/l	0.0050	1.25		102	85-115	0.6	20
Chromium	**1.34**		mg/l	0.0050	1.25		107	85-115	0.2	20
Cobalt	**1.30**		mg/l	0.0050	1.25		104	85-115	0.6	20
Cadmium	**1.35**		mg/l	0.0025	1.25		108	85-115	1	20
Calcium	**6.30**		mg/l	0.100	6.25		101	85-115	0.3	20
Beryllium	**1.39**		mg/l	0.0020	1.25		111	85-115	0.9	20
Barium	**1.30**		mg/l	0.0050	1.25		104	85-115	0.2	20
Arsenic	**1.28**		mg/l	0.0040	1.25		103	85-115	0.8	20
Aluminum	**1.41**		mg/l	0.0250	1.25		112	85-115	6	20
Duplicate (1204826-DUP1)			**Source: SB44536-05**		Prepared & Analyzed: 05-Mar-12					
Sodium	**49.3**		mg/l	0.250		49.2			0.3	20
Thallium	< 0.0050		mg/l	0.0050		BRL				20
Selenium	< 0.0150		mg/l	0.0150		BRL				20
Antimony	**0.0244**		mg/l	0.0060		0.0256			5	20
Nickel	**0.0026**	J	mg/l	0.0050		0.0026			2	20
Manganese	**0.190**		mg/l	0.0020		0.191			0.6	20
Magnesium	**0.656**		mg/l	0.0100		0.662			0.9	20
Potassium	**1.27**		mg/l	0.500		1.27			0.3	20
Zinc	**0.0394**		mg/l	0.0050		0.0398			0.9	20
Iron	**0.275**		mg/l	0.0150		0.281			2	20
Lead	**0.0077**		mg/l	0.0075		0.0075			3	20
Silver	< 0.0050		mg/l	0.0050		BRL				20
Chromium	**0.0040**	J	mg/l	0.0050		BRL				20
Vanadium	< 0.0050		mg/l	0.0050		BRL				20
Cadmium	**0.0002**	J,QR8	mg/l	0.0025		0.0002			23	20
Calcium	**3.06**		mg/l	0.100		3.05			0.3	20
Copper	**0.0104**		mg/l	0.0050		0.0101			2	20
Beryllium	< 0.0020		mg/l	0.0020		BRL				20
Barium	**0.0198**		mg/l	0.0050		0.0200			1	20
Arsenic	< 0.0040		mg/l	0.0040		BRL				20
Aluminum	**0.194**		mg/l	0.0250		0.205			5	20
Cobalt	**0.0007**	J	mg/l	0.0050		0.0008			7	20
Matrix Spike (1204826-MS1)			**Source: SB44536-04**		Prepared: 05-Mar-12 Analyzed: 07-Mar-12					
Manganese	**10.9**		mg/l	0.0100	1.25	9.61	102	75-125		
Nickel	**1.25**		mg/l	0.0050	1.25	0.0038	100	75-125		
Potassium	**22.2**		mg/l	0.500	12.5	10.0	97	75-125		
Sodium	**30.4**		mg/l	0.250	6.25	24.2	99	75-125		
Lead	**1.29**		mg/l	0.0075	1.25	BRL	103	75-125		
Antimony	**1.24**		mg/l	0.0060	1.25	BRL	99	75-125		
Selenium	**1.29**		mg/l	0.0150	1.25	0.0034	103	75-125		
Zinc	**1.33**		mg/l	0.0050	1.25	0.0061	106	75-125		
Iron	**1.89**		mg/l	0.0150	1.25	0.524	109	75-125		
Thallium	**1.30**		mg/l	0.0050	1.25	BRL	104	75-125		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1204826 - SW846 3005A										
Matrix Spike (1204826-MS1)			**Source: SB44536-04**			Prepared & Analyzed: 05-Mar-12				
Magnesium	**4.32**		mg/l	0.0100	1.25	2.98	107	75-125		
Cobalt	**1.27**		mg/l	0.0050	1.25	0.0013	101	75-125		
Silver	**1.28**		mg/l	0.0050	1.25	BRL	102	75-125		
Vanadium	**1.24**		mg/l	0.0050	1.25	BRL	99	70-130		
Chromium	**1.31**		mg/l	0.0050	1.25	BRL	105	75-125		
Cadmium	**1.33**		mg/l	0.0025	1.25	BRL	106	75-125		
Calcium	**21.0**		mg/l	0.100	6.25	14.8	99	75-125		
Beryllium	**1.39**		mg/l	0.0020	1.25	BRL	111	75-125		
Barium	**1.31**		mg/l	0.0050	1.25	0.0312	102	75-125		
Arsenic	**1.31**		mg/l	0.0040	1.25	BRL	104	75-125		
Aluminum	**1.73**		mg/l	0.0250	1.25	0.299	114	75-125		
Copper	**1.28**		mg/l	0.0050	1.25	0.0036	102	75-125		
Matrix Spike Dup (1204826-MSD1)			**Source: SB44536-04**			Prepared: 05-Mar-12 Analyzed: 07-Mar-12				
Manganese	**10.8**		mg/l	0.0100	1.25	9.61	93	75-125	0.9	20
Nickel	**1.22**		mg/l	0.0050	1.25	0.0038	98	75-125	2	20
Potassium	**21.7**		mg/l	0.500	12.5	10.0	93	75-125	2	20
Sodium	**29.9**		mg/l	0.250	6.25	24.2	90	75-125	2	20
Lead	**1.28**		mg/l	0.0075	1.25	BRL	103	75-125	0.7	20
Antimony	**1.22**		mg/l	0.0060	1.25	BRL	97	75-125	1	20
Selenium	**1.28**		mg/l	0.0150	1.25	0.0034	102	75-125	0.9	20
Zinc	**1.30**		mg/l	0.0050	1.25	0.0061	104	75-125	2	20
Iron	**1.94**		mg/l	0.0150	1.25	0.524	113	75-125	3	20
Thallium	**1.27**		mg/l	0.0050	1.25	BRL	102	75-125	2	20
Magnesium	**4.28**		mg/l	0.0100	1.25	2.98	104	75-125	0.7	20
Cobalt	**1.25**		mg/l	0.0050	1.25	0.0013	100	75-125	2	20
Vanadium	**1.20**		mg/l	0.0050	1.25	BRL	96	70-130	3	20
Silver	**1.25**		mg/l	0.0050	1.25	BRL	100	75-125	3	20
Chromium	**1.27**		mg/l	0.0050	1.25	BRL	102	75-125	3	20
Cadmium	**1.32**		mg/l	0.0025	1.25	BRL	106	75-125	0.8	20
Calcium	**20.6**		mg/l	0.100	6.25	14.8	92	75-125	2	20
Beryllium	**1.36**		mg/l	0.0020	1.25	BRL	109	75-125	2	20
Barium	**1.28**		mg/l	0.0050	1.25	0.0312	100	75-125	2	20
Arsenic	**1.29**		mg/l	0.0040	1.25	BRL	103	75-125	1	20
Aluminum	**1.77**		mg/l	0.0250	1.25	0.299	118	75-125	2	20
Copper	**1.25**		mg/l	0.0050	1.25	0.0036	100	75-125	2	20
Post Spike (1204826-PS1)			**Source: SB44536-04**			Prepared & Analyzed: 05-Mar-12				
Thallium	**1.29**		mg/l	0.0050	1.25	BRL	104	80-120		
Sodium	**30.3**		mg/l	0.250	6.25	24.2	98	80-120		
Iron	**1.92**		mg/l	0.0150	1.25	0.524	111	80-120		
Potassium	**22.1**		mg/l	0.500	12.5	10.0	97	80-120		
Magnesium	**4.32**		mg/l	0.0100	1.25	2.98	107	80-120		
Nickel	**1.25**		mg/l	0.0050	1.25	0.0038	99	80-120		
Lead	**1.30**		mg/l	0.0075	1.25	BRL	104	80-120		
Selenium	**1.29**		mg/l	0.0150	1.25	0.0034	103	80-120		
Zinc	**1.32**		mg/l	0.0050	1.25	0.0061	105	80-120		
Manganese	**11.0**		mg/l	0.0100	1.25	9.61	107	80-120		
Antimony	**1.24**		mg/l	0.0060	1.25	BRL	99	80-120		
Cobalt	**1.26**		mg/l	0.0050	1.25	0.0013	101	80-120		
Silver	**1.24**		mg/l	0.0050	1.25	BRL	99	80-120		
Vanadium	**1.20**		mg/l	0.0050	1.25	BRL	96	80-120		
Copper	**1.25**		mg/l	0.0050	1.25	0.0036	99	80-120		

Soluble Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1204826 - SW846 3005A										
Post Spike (1204826-PS1)			**Source: SB44536-04**		Prepared & Analyzed: 05-Mar-12					
Chromium	**1.27**		mg/l	0.0050	1.25	BRL	102	80-120		
Calcium	**20.9**		mg/l	0.100	6.25	14.8	98	80-120		
Beryllium	**1.35**		mg/l	0.0020	1.25	BRL	108	80-120		
Barium	**1.30**		mg/l	0.0050	1.25	0.0312	102	80-120		
Arsenic	**1.31**		mg/l	0.0040	1.25	BRL	105	80-120		
Aluminum	**1.72**		mg/l	0.0250	1.25	0.299	113	80-120		
Cadmium	**1.33**		mg/l	0.0025	1.25	BRL	107	80-120		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1204827 - EPA200/SW7000 Series										
Blank (1204827-BLK1)						Prepared: 05-Mar-12 Analyzed: 06-Mar-12				
Mercury	< 0.00020		mg/l	0.00020						
LCS (1204827-BS1)						Prepared: 05-Mar-12 Analyzed: 06-Mar-12				
Mercury	**0.00511**		mg/l	0.00020	0.00500		102	85-115		
Duplicate (1204827-DUP1)			**Source: SB44536-04**			Prepared: 05-Mar-12 Analyzed: 06-Mar-12				
Mercury	< 0.00020		mg/l	0.00020		BRL				20
Matrix Spike (1204827-MS1)			**Source: SB44536-05**			Prepared: 05-Mar-12 Analyzed: 06-Mar-12				
Mercury	**0.00514**		mg/l	0.00020	0.00500	BRL	103	80-120		
Matrix Spike Dup (1204827-MSD1)			**Source: SB44536-05**			Prepared: 05-Mar-12 Analyzed: 06-Mar-12				
Mercury	**0.00484**		mg/l	0.00020	0.00500	BRL	97	80-120	6	20
Post Spike (1204827-PS1)			**Source: SB44536-05**			Prepared: 05-Mar-12 Analyzed: 06-Mar-12				
Mercury	**0.00478**		mg/l	0.00020	0.00500	BRL	96	85-115		

General Chemistry Parameters - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1204587 - General Preparation										
Blank (1204587-BLK1)						Prepared & Analyzed: 01-Mar-12				
Cyanide (total)	< 0.00500		mg/l	0.00500						
Blank (1204587-BLK2)						Prepared & Analyzed: 01-Mar-12				
Cyanide (total)	< 0.00500		mg/l	0.00500						
LCS (1204587-BS1)						Prepared & Analyzed: 01-Mar-12				
Cyanide (total)	**0.328**		mg/l	0.00500	0.300		109	90-110		
LCS (1204587-BS2)						Prepared & Analyzed: 01-Mar-12				
Cyanide (total)	**0.282**		mg/l	0.00500	0.300		94	90-110		
Reference (1204587-SRM1)						Prepared & Analyzed: 01-Mar-12				
Cyanide (total)	**0.213**		mg/l	0.00500	0.185		115	65-135		

Volatile Organic Compounds - CCV Evaluation Report

Analyte(s)	Average RF	CCRF	% D	Limit
Batch S202449				
Calibration Check (S202449-CCV1)				
Benzene	125338.6	122324	-2.4	25
Ethylbenzene	69695.54	68615.96	-1.5	25
Methyl tert-butyl ether	67938.23	65028.5	-4.3	25
Naphthalene	64783.47	62107.4	-4.1	25
Toluene	89233.04	88489.64	-0.8	25
m,p-Xylene	77150.11	76156.67	-1.3	25
o-Xylene	64126.76	62934.72	-1.9	25
2-Methylpentane	49629.85	47840.56	-3.6	25
n-Nonane	31577.51	35221.52	11.5	30
n-Pentane	45333.86	38037.44	-16.1	25
1,2,4-Trimethylbenzene	65528.51	63245.54	-3.5	25
2,2,4-Trimethylpentane	45933.74	48224.04	5.0	25
n-Butylcyclohexane	31621.02	33064.02	4.6	25
n-Decane	27201.97	26893.82	-1.1	25
Calibration Check (S202449-CCV2)				
Benzene	125338.6	104034.6	-17.0	25
Ethylbenzene	69695.54	60336.86	-13.4	25
Methyl tert-butyl ether	67938.23	55784.06	-17.9	25
Naphthalene	64783.47	58370.64	-9.9	25
Toluene	89233.04	77940.98	-12.7	25
m,p-Xylene	77150.11	66762.54	-13.5	25
o-Xylene	64126.76	56241.46	-12.3	25
2-Methylpentane	49629.85	38035.52	-23.4	25
n-Nonane	31577.51	30205.56	-4.3	30
n-Pentane	45333.86	34525.56	-23.8	25
1,2,4-Trimethylbenzene	65528.51	56287.74	-14.1	25
2,2,4-Trimethylpentane	45933.74	38590.28	-16.0	25
n-Butylcyclohexane	31621.02	29033.32	-8.2	25
n-Decane	27201.97	24119.18	-11.3	25

Notes and Definitions

D03	The result for this hydrocarbon range is elevated due to the presence of single analyte peak(s) in the quantitation range.
E	The concentration indicated for this analyte is an estimated value. This value is considered an estimate (CLP E-flag).
GS1	Sample dilution required for high concentration of target analytes to be within the instrument calibration range.
QC2	Analyte out of acceptance range in QC spike but no reportable concentration present in sample.
QM7	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
QM9	The spike recovery for this QC sample is outside the established control limits. The sample results for the QC batch were accepted based on LCS/LCSD or SRM recoveries within the control limits.
QR2	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
QR8	Analyses are not controlled on RPD values from sample concentrations that are less than 5 times the reporting level. The batch is accepted based upon the difference between the sample and duplicate is less than or equal to the reporting limit.
V11	Data confirmed with duplicate analysis.
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference
J	Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).

A Matrix Spike and Matrix Spike Duplicate (MS/MSD) for MADEP EPH CAM may not have been analyzed with the samples in this work order. According to the method these spikes are performed only when requested by the client. If requested the spike recoveries are included in the batch QC data.

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

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

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

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

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

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

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

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

Validated by:
June O'Connor

SB44536 SM

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

CHAIN OF CUSTODY RECORD

Page 1 of 1

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

Report To: OTO
293 Bridge St, Suite 500
Springfield, MA 01103
Project Mgr.: Val Tillinghast

Invoice To: OTO
P.O. No.: _____ RQN: _____

Project No.: 1753-03-01
Site Name: Lunt Silversmith
Location: Greenfield State: MA
Sampler(s): B. Wanenda

1=$Na_2S_2O_3$ 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid
7=CH_3OH 8= $NaHSO_4$ 9= As, Is 10= _____

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

G=Grab C=Composite

Lab Id:	Sample Id:	Date:	Time:	Type	Matrix	Preservative	Containers: # of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Analyses: S260	VPH	EPH	THL-2.3	Cyanide				QA Reporting Notes: (check if needed)
44536-01	LS-21	2/28/12	~~0915~~ 0945	G	GW	2	3				X								
02	LS-22		~~0945~~ 1020			2	3				X								
03	LS-23		~~1020~~ 1055			2	3				X								
04	LS-24		1125			2/9	4	1		1	X	X	X	X					Lab filt metals
05	MW-6		1230			2/5/9	3			2	X			X	X				Lab filt metals
06	Sump	2/28/12	0911	G	GW	2	4				X	X							

☐ Fax results when available to (_____) _____
☒ E-mail to tillinghast@oto-env.com
EDD Format _____

Condition upon receipt: ☒ Iced ☐ Ambient ☒ °C 4.6

Relinquished by:	Received by:	Date:	Time:
		2/29/12	9:00

Report Date:
16-Mar-12 14:13

☐ Final Report
☐ Re-Issued Report
☑ Revised Report

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

Laboratory Report

O'Reilly, Talbot & Okun
293 Bridge Street; Suite 500
Springfield, MA 01103
Attn: Val Tillinghast

Project: Lunt Silversmith-Greenfield, MA
Project #: 1753-03-01

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
SB44200-01	LS-24 (0-4)	Soil	21-Feb-12 10:50	21-Feb-12 15:20
SB44200-02	LS-24 (6-8)	Soil	21-Feb-12 10:55	21-Feb-12 15:20
SB44200-03	LS-27 (0-2)	Soil	21-Feb-12 11:17	21-Feb-12 15:20
SB44200-04	LS-27 (6-8)	Soil	21-Feb-12 11:22	21-Feb-12 15:20
SB44200-05	LS-30 (6-8)	Soil	21-Feb-12 11:55	21-Feb-12 15:20
SB44200-06	LS-29 (0-1)	Soil	21-Feb-12 10:18	21-Feb-12 15:20
SB44200-07	LS-29 (1-2)	Soil	21-Feb-12 10:20	21-Feb-12 15:20

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

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

Authorized by:

Nicole Leja
Laboratory Director

Spectrum Analytical holds certification in the State of Massachusetts for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of Massachusetts does not offer certification for all analytes.
Please note that this report contains 51 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Spectrum Analytical, Inc.

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

The following outlines the condition of all VPH samples contained within this report upon laboratory receipt.

Matrices	Soil		
Containers	✓ Satisfactory		
Sample Preservative	**Aqueous** (acid preserved)	✓ N/A pH≤2 pH>2	
	Soil or Sediment	N/A Samples not received in Methanol	ml Methanol/g soil ✓ 1:1 +/-25% Other
		✓ Samples received in Methanol: ✓ covering soil/sediment not covering soil/sediment	
		✓ Samples received in air-tight container	
Temperature	✓ Received on ice	Received at 4 ± 2 ºC ✓ Other: 9.3ºC	

Were all QA/QC procedures followed as required by the VPH method? *Yes*
Were any significant modifications made to the VPH method as specified in section 11.3? *No*
Were all performance/acceptance standards for required QA/QC procedures achieved? *Yes*

The following outlines the condition of all EPH samples contained within this report upon laboratory receipt.

Matrices	Soil			
Containers	✓ Satisfactory			
Aqueous Preservative	✓ N/A	pH≤2	pH>2	pH adjusted to <2 in lab
Temperature	✓ Received on ice	Received at 4 ± 2 ºC	✓ Other: 9.3ºC	

Were all QA/QC procedures followed as required by the EPH method? *Yes*
Were any significant modifications made to the EPH method as specified in Section 11.3? *No*
Were all performance/acceptance standards for required QA/QC procedures achieved? *Yes*

I attest that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Authorized by:

Nicole Leja
Laboratory Director

MassDEP Analytical Protocol Certification Form

Laboratory Name: Spectrum Analytical, Inc.	**Project #:** 1753-03-01
Project Location: Lunt Silversmith-Greenfield, MA	**RTN:**
This form provides certifications for the following data set:	SB44200-01 through SB44200-07
Matrices: Soil	

CAM Protocol

✓ 8260 VOC CAM II A	✓ 7470/7471 Hg CAM III B	✓ MassDEP VPH CAM IV A	8081 Pesticides CAM V B	7196 Hex Cr CAM VI B	MassDEP APH CAM IX A
8270 SVOC CAM II B	7010 Metals CAM III C	✓ MassDEP EPH CAM IV B	8151 Herbicides CAM V C	8330 Explosives CAM VIII A	TO-15 VOC CAM IX B
✓ 6010 Metals CAM III A	6020 Metals CAM III D	8082 PCB CAM V A	9012 Total Cyanide/PAC CAM VI A	9014 Total Cyanide/PAC CAM VI A	6860 Perchlorate CAM VIII B

Affirmative responses to questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain of Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	✓ Yes No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	✓ Yes No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	✓ Yes No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	✓ Yes No
E	a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	✓ Yes No Yes No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to questions A through E)?	✓ Yes No

Responses to questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	Yes ✓ No

<u>Data User Note:</u> Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.

H	Were all QC performance standards specified in the CAM protocol(s) achieved?	Yes ✓ No
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	✓ Yes No

All negative responses are addressed in a case narrative on the cover page of this report.

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

Nicole Leja
Laboratory Director
Date: 3/16/2012

CASE NARRATIVE:

The samples were received 9.3 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/- 1.0 degrees Celsius was used immediately upon receipt of the samples.

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

MADEP has published a list of analytical methods (CAM) which provides a series of recommended protocols for the acquisition, analysis and reporting of analytical data in support of MCP decisions. "Presumptive Certainty" can be established only for those methods published by the MADEP in the MCP CAM. The compounds and/or elements reported were specifically requested by the client on the Chain of Custody and in some cases may not include the full analyte list as defined in the method. Regulatory limits may not be achieved if specific method and/or technique was not requested on the Chain of Custody.

According to WSC-CAM 5/2009 Rev.1, Table 11 A-1, recovery for some VOC analytes have been deemed potentially difficult. Although they may still be within the recommended recovery range, a range has been set based on historical control limits.

Some target analytes which are not listed as exceptions in the Summary of CAM Reporting Limits may exceed the recommended RL based on sample initial volume or weight provided, % moisture content, or responsiveness of a particular analyte to purge and trap instrumentation.

All VOC soils samples submitted and analyzed in methanol will have a minimum dilution factor of 50. This is the minimum amount of solvent allowed on the instrumentation without causing interference. Additional dilution factors may be required to keep analyte concentration within instrument calibration.

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

MADEP VPH 5/2004 Rev. 1.1

Samples:

S202178-CCV1

Analyte percent difference is outside individual acceptance criteria (25), but within overall method allowances.

C9-C10 Aromatic Hydrocarbons (-26.8%)

This affected the following samples:

1204348-BLK1
1204348-BS1
1204348-BSD1
LS-30 (6-8)

SW846 6010C

Spikes:

1204322-MS1 *Source: SB44200-07*

The RPD and/or percent recovery for this QC spike sample cannot be accurately calculated due to the high concentration of analyte inherent in the sample.

Aluminum
Iron
Magnesium

The spike recovery exceeded the QC control limits for the MS and/or MSD. The batch was accepted based upon acceptable PS and /or LCS recovery.

Calcium
Potassium
Sodium

SW846 6010C

Spikes:

1204322-MS1 *Source: SB44200-07*

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

Copper
Lead
Silver

1204322-MSD1 *Source: SB44200-07*

The RPD and/or percent recovery for this QC spike sample cannot be accurately calculated due to the high concentration of analyte inherent in the sample.

Aluminum
Iron
Magnesium

The spike recovery exceeded the QC control limits for the MS and/or MSD. The batch was accepted based upon acceptable PS and /or LCS recovery.

Barium
Calcium
Potassium
Sodium
Zinc

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

Lead
Silver

1204322-PS1 *Source: SB44200-07*

The RPD and/or percent recovery for this QC spike sample cannot be accurately calculated due to the high concentration of analyte inherent in the sample.

Aluminum
Iron
Magnesium

Duplicates:

1204322-DUP1 *Source: SB44200-07*

Analyses are not controlled on RPD values from sample concentrations that are less than 5 times the reporting level. The batch is accepted based upon the difference between the sample and duplicate is less than or equal to the reporting limit.

Antimony

The RPD exceeded the QC control limits; however precision is demonstrated with acceptable RPD values for MS/MSD.

Calcium
Silver

Samples:

SB44200-01 *LS-24 (0-4)*

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

Iron

SB44200-06 *LS-29 (0-1)*

SW846 6010C

Samples:

SB44200-06 *LS-29 (0-1)*

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

Zinc

SW846 7471B

Samples:

SB44200-01 *LS-24 (0-4)*

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

Mercury

SW846 8260C

Calibration:

1202011

Analyte quantified by quadratic equation type calibration.

1,2-Dibromo-3-chloropropane
Bromodichloromethane
Bromoform
Carbon disulfide
Carbon tetrachloride
cis-1,3-Dichloropropene
Dibromochloromethane
trans-1,3-Dichloropropene

This affected the following samples:

S201599-ICV1

Samples:

S202179-CCV1

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

1,1,1-Trichloroethane (20.6%)

This affected the following samples:

1204395-BLK1
1204395-BS1
1204395-BSD1
LS-24 (6-8)
LS-27 (0-2)
LS-30 (6-8)

S202218-CCV1

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

1,1,1-Trichloroethane (28.5%)
2,2-Dichloropropane (28.0%)

This affected the following samples:

1204484-BLK1
1204484-BS1
1204484-BSD1
LS-24 (0-4)

SW846 8260C

Samples:

SB44200-01 *LS-24 (0-4)*

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

SB44200-02 *LS-24 (6-8)*

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

SB44200-03 *LS-27 (0-2)*

Reporting limits reflect SW846 5030 extraction technique due to interference and/or QC issues using SW846 5035A extraction technique.

SB44200-05 *LS-30 (6-8)*

Elevated Reporting Limits due to the presence of high levels of non-target analytes.

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-24 (0-4) SB44200-01	1753-03-01	Soil	21-Feb-12 10:50	21-Feb-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
	VOC Extraction	**Field extracted**		N/A			1	VOC Soil Extraction	22-Feb-12	22-Feb-12	KK	1203968	
Volatile Organic Compounds			GS1										
Prepared by method SW846 5030 Soil (high level)							Initial weight: 12.67 g						
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 3010		µg/kg dry	3010	2010	2000	SW846 8260C	29-Feb-12	29-Feb-12	naa	1204484	
67-64-1	Acetone	< 30100		µg/kg dry	30100	22600	2000	"	"	"	"	"	
107-13-1	Acrylonitrile	< 3010		µg/kg dry	3010	2700	2000	"	"	"	"	"	
71-43-2	Benzene	< 3010		µg/kg dry	3010	1580	2000	"	"	"	"	"	
108-86-1	Bromobenzene	< 3010		µg/kg dry	3010	1920	2000	"	"	"	"	"	
74-97-5	Bromochloromethane	< 3010		µg/kg dry	3010	988	2000	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 3010		µg/kg dry	3010	1140	2000	"	"	"	"	"	
75-25-2	Bromoform	< 3010		µg/kg dry	3010	2080	2000	"	"	"	"	"	
74-83-9	Bromomethane	< 6030		µg/kg dry	6030	5430	2000	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	< 30100		µg/kg dry	30100	25800	2000	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 3010		µg/kg dry	3010	1500	2000	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 3010		µg/kg dry	3010	2920	2000	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 3010		µg/kg dry	3010	2180	2000	"	"	"	"	"	
75-15-0	Carbon disulfide	< 6030		µg/kg dry	6030	4300	2000	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 3010		µg/kg dry	3010	2990	2000	"	"	"	"	"	
108-90-7	Chlorobenzene	< 3010		µg/kg dry	3010	1680	2000	"	"	"	"	"	
75-00-3	Chloroethane	< 6030		µg/kg dry	6030	4270	2000	"	"	"	"	"	
67-66-3	Chloroform	< 3010		µg/kg dry	3010	1470	2000	"	"	"	"	"	
74-87-3	Chloromethane	< 6030		µg/kg dry	6030	1520	2000	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 3010		µg/kg dry	3010	1830	2000	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 3010		µg/kg dry	3010	2700	2000	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	< 6030		µg/kg dry	6030	5700	2000	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 3010		µg/kg dry	3010	1450	2000	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 3010		µg/kg dry	3010	1870	2000	"	"	"	"	"	
74-95-3	Dibromomethane	< 3010		µg/kg dry	3010	3010	2000	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 3010		µg/kg dry	3010	2430	2000	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 3010		µg/kg dry	3010	3000	2000	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 3010		µg/kg dry	3010	2030	2000	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 6030		µg/kg dry	6030	5080	2000	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 3010		µg/kg dry	3010	2750	2000	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 3010		µg/kg dry	3010	1680	2000	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 3010		µg/kg dry	3010	1490	2000	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	< 3010		µg/kg dry	3010	1270	2000	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 3010		µg/kg dry	3010	2500	2000	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 3010		µg/kg dry	3010	1530	2000	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 3010		µg/kg dry	3010	1520	2000	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 3010		µg/kg dry	3010	1210	2000	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 3010		µg/kg dry	3010	1860	2000	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 3010		µg/kg dry	3010	1640	2000	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 3010		µg/kg dry	3010	850	2000	"	"	"	"	"	
100-41-4	Ethylbenzene	< 3010		µg/kg dry	3010	1830	2000	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-24 (0-4) SB44200-01	1753-03-01	Soil	21-Feb-12 10:50	21-Feb-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds			GS1										
Prepared by method SW846 5030 Soil (high level)							Initial weight: 12.67 g						
87-68-3	Hexachlorobutadiene	< 3010		µg/kg dry	3010	2600	2000	SW846 8260C	29-Feb-12	29-Feb-12	naa	1204484	
591-78-6	2-Hexanone (MBK)	< 30100		µg/kg dry	30100	7680	2000	"	"	"	"	"	
98-82-8	Isopropylbenzene	< 3010		µg/kg dry	3010	1510	2000	"	"	"	"	"	
99-87-6	4-Isopropyltoluene	< 3010		µg/kg dry	3010	1250	2000	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 3010		µg/kg dry	3010	2190	2000	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 30100		µg/kg dry	30100	9800	2000	"	"	"	"	"	
75-09-2	Methylene chloride	< 6030		µg/kg dry	6030	1530	2000	"	"	"	"	"	
91-20-3	Naphthalene	< 3010		µg/kg dry	3010	1870	2000	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 3010		µg/kg dry	3010	1810	2000	"	"	"	"	"	
100-42-5	Styrene	< 3010		µg/kg dry	3010	2230	2000	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 3010		µg/kg dry	3010	2890	2000	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 3010		µg/kg dry	3010	2290	2000	"	"	"	"	"	
127-18-4	Tetrachloroethene	**29,400**		µg/kg dry	3010	1720	2000	"	"	"	"	"	
108-88-3	Toluene	< 3010		µg/kg dry	3010	2700	2000	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 3010		µg/kg dry	3010	2610	2000	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 3010		µg/kg dry	3010	2270	2000	"	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 3010		µg/kg dry	3010	2130	2000	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 3010		µg/kg dry	3010	2410	2000	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 3010		µg/kg dry	3010	2590	2000	"	"	"	"	"	
79-01-6	Trichloroethene	**167,000**		µg/kg dry	3010	2310	2000	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 3010		µg/kg dry	3010	1220	2000	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 3010		µg/kg dry	3010	1360	2000	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 3010		µg/kg dry	3010	985	2000	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 3010		µg/kg dry	3010	2990	2000	"	"	"	"	"	
75-01-4	Vinyl chloride	< 3010		µg/kg dry	3010	2830	2000	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 6030		µg/kg dry	6030	5840	2000	"	"	"	"	"	
95-47-6	o-Xylene	< 3010		µg/kg dry	3010	2060	2000	"	"	"	"	"	
109-99-9	Tetrahydrofuran	< 6030		µg/kg dry	6030	5570	2000	"	"	"	"	"	
60-29-7	Ethyl ether	< 3010		µg/kg dry	3010	2810	2000	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	< 3010		µg/kg dry	3010	2380	2000	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 3010		µg/kg dry	3010	1050	2000	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 3010		µg/kg dry	3010	970	2000	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 30100		µg/kg dry	30100	17100	2000	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 60300		µg/kg dry	60300	49300	2000	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-buten e	< 15100		µg/kg dry	15100	7720	2000	"	"	"	"	"	
64-17-5	Ethanol	< 1210000		µg/kg dry	1210000	252000	2000	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*97*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*96*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*108*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*105*			*70-130 %*			"	"	"	"	"	
Extractable Petroleum Hydrocarbons													

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-24 (0-4)	1753-03-01	Soil	21-Feb-12 10:50	21-Feb-12
SB44200-01				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Extractable Petroleum Hydrocarbons													
EPH Aliphatic/Aromatic Ranges													
Prepared by method SW846 3545A													
	C9-C18 Aliphatic Hydrocarbons	**37.9**		mg/kg dry	11.3	1.67	1	MADEP EPH 5/2004 R	27-Feb-12	29-Feb-12	MWP	1204235	
	C19-C36 Aliphatic Hydrocarbons	**44.3**		mg/kg dry	11.3	5.54	1	"	"	"	"	"	
	C11-C22 Aromatic Hydrocarbons	**47.6**		mg/kg dry	11.3	4.10	1	"	"	"	"	"	
	Unadjusted C11-C22 Aromatic Hydrocarbons	**49.9**		mg/kg dry	11.3	4.10	1	"	"	"	"	"	
	Total Petroleum Hydrocarbons	**130**		mg/kg dry	11.3	11.3	1	"	"	"	"	"	
	Unadjusted Total Petroleum Hydrocarbons	**132**		mg/kg dry	11.3	11.3	1	"	"	"	"	"	
EPH Target PAH Analytes													
Prepared by method SW846 3545A													
91-20-3	Naphthalene	< 0.377		mg/kg dry	0.377	0.197	1	"	"	"	"	"	
91-57-6	2-Methylnaphthalene	< 0.377		mg/kg dry	0.377	0.197	1	"	"	"	"	"	
208-96-8	Acenaphthylene	< 0.377		mg/kg dry	0.377	0.221	1	"	"	"	"	"	
83-32-9	Acenaphthene	< 0.377		mg/kg dry	0.377	0.221	1	"	"	"	"	"	
86-73-7	Fluorene	< 0.377		mg/kg dry	0.377	0.223	1	"	"	"	"	"	
85-01-8	Phenanthrene	< 0.377		mg/kg dry	0.377	0.257	1	"	"	"	"	"	
120-12-7	Anthracene	< 0.377		mg/kg dry	0.377	0.280	1	"	"	"	"	"	
206-44-0	Fluoranthene	**0.476**		mg/kg dry	0.377	0.253	1	"	"	"	"	"	
129-00-0	Pyrene	**0.378**		mg/kg dry	0.377	0.272	1	"	"	"	"	"	
56-55-3	Benzo (a) anthracene	< 0.377		mg/kg dry	0.377	0.274	1	"	"	"	"	"	
218-01-9	Chrysene	**0.540**		mg/kg dry	0.377	0.294	1	"	"	"	"	"	
205-99-2	Benzo (b) fluoranthene	**0.493**		mg/kg dry	0.377	0.337	1	"	"	"	"	"	
207-08-9	Benzo (k) fluoranthene	< 0.377		mg/kg dry	0.377	0.315	1	"	"	"	"	"	
50-32-8	Benzo (a) pyrene	< 0.377		mg/kg dry	0.377	0.254	1	"	"	"	"	"	
193-39-5	Indeno (1,2,3-cd) pyrene	< 0.377		mg/kg dry	0.377	0.336	1	"	"	"	"	"	
53-70-3	Dibenzo (a,h) anthracene	< 0.377		mg/kg dry	0.377	0.274	1	"	"	"	"	"	
191-24-2	Benzo (g,h,i) perylene	**0.378**		mg/kg dry	0.377	0.283	1	"	"	"	"	"	
Surrogate recoveries:													
3386-33-2	*1-Chlorooctadecane*	*73*			*40-140 %*			"	"	"	"	"	
84-15-1	*Ortho-Terphenyl*	*62*			*40-140 %*			"	"	"	"	"	
321-60-8	*2-Fluorobiphenyl*	*84*			*40-140 %*			"	"	"	"	"	
Total Metals by EPA 6000/7000 Series Methods													
7440-22-4	Silver	**91.7**		mg/kg dry	1.47	0.226	1	SW846 6010C	29-Feb-12	01-Mar-12	EDT	1204322	
7429-90-5	Aluminum	**6,180**		mg/kg dry	4.89	0.685	1	"	"	"	"	"	
7440-38-2	Arsenic	**16.5**		mg/kg dry	1.47	0.236	1	"	"	"	"	"	
7440-39-3	Barium	**50.7**		mg/kg dry	0.978	0.236	1	"	"	"	"	"	
7440-41-7	Beryllium	< 0.489		mg/kg dry	0.489	0.157	1	"	"	"	"	"	
7440-70-2	Calcium	**1,240**		mg/kg dry	24.4	6.12	1	"	"	"	"	"	
7440-43-9	Cadmium	**1.03**		mg/kg dry	0.489	0.0540	1	"	"	"	"	"	
7440-48-4	Cobalt	**6.24**		mg/kg dry	0.978	0.109	1	"	"	"	"	"	
7440-47-3	Chromium	**46.4**		mg/kg dry	0.978	0.356	1	"	"	"	"	"	
7440-50-8	Copper	**139**		mg/kg dry	0.978	0.110	1	"	"	"	"	"	
7439-89-6	Iron	**33,400**	GS1	mg/kg dry	39.1	7.21	10	"	"	02-Mar-12	"	"	

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

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-24 (0-4)	1753-03-01	Soil	21-Feb-12 10:50	21-Feb-12
SB44200-01				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Total Metals by EPA 6000/7000 Series Methods													
7439-97-6	Mercury	**1.43**	GS1	mg/kg dry	0.164	0.0336	5	SW846 7471B	29-Feb-12	01-Mar-12	RH	1204423	
7440-09-7	Potassium	**470**		mg/kg dry	48.9	12.3	1	SW846 6010C	"	02-Mar-12	EDT	1204322	
7439-95-4	Magnesium	**2,170**		mg/kg dry	4.89	0.139	1	"	"	01-Mar-12	"	"	
7439-96-5	Manganese	**145**		mg/kg dry	0.978	0.0529	1	"	"	"	"	"	
7440-23-5	Sodium	**52.7**		mg/kg dry	24.4	3.10	1	"	"	"	"	"	
7440-02-0	Nickel	**20.6**		mg/kg dry	0.978	0.0674	1	"	"	"	"	"	
7439-92-1	Lead	**272**		mg/kg dry	1.47	0.174	1	"	"	"	"	"	
7440-36-0	Antimony	**5.28**		mg/kg dry	4.89	0.215	1	"	"	"	"	"	
7782-49-2	Selenium	< 1.47		mg/kg dry	1.47	0.217	1	"	"	"	"	"	
7440-28-0	Thallium	< 3.72		mg/kg dry	3.72	0.241	1	"	"	"	"	"	
7440-62-2	Vanadium	**24.1**		mg/kg dry	1.47	0.256	1	"	"	"	"	"	
7440-66-6	Zinc	**73.1**		mg/kg dry	0.978	0.212	1	"	"	"	"	"	
General Chemistry Parameters													
	% Solids	**87.1**		%			1	SM2540 G Mod.	22-Feb-12	22-Feb-12	DT	1203971	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-24 (6-8)	1753-03-01	Soil	21-Feb-12 10:55	21-Feb-12
SB44200-02				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
	VOC Extraction	**Field extracted**		N/A			1	VOC Soil Extraction	22-Feb-12	22-Feb-12	KK	1203968	
Volatile Organic Compounds			GS1										
Prepared by method SW846 5030 Soil (high level)							Initial weight: 11.77 g						
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 92.3		µg/kg dry	92.3	61.5	50	SW846 8260C	28-Feb-12	29-Feb-12	naa	1204395	
67-64-1	Acetone	< 923		µg/kg dry	923	693	50	"	"	"	"	"	
107-13-1	Acrylonitrile	< 92.3		µg/kg dry	92.3	82.6	50	"	"	"	"	"	
71-43-2	Benzene	< 92.3		µg/kg dry	92.3	48.4	50	"	"	"	"	"	
108-86-1	Bromobenzene	< 92.3		µg/kg dry	92.3	58.9	50	"	"	"	"	"	
74-97-5	Bromochloromethane	< 92.3		µg/kg dry	92.3	30.3	50	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 92.3		µg/kg dry	92.3	34.9	50	"	"	"	"	"	
75-25-2	Bromoform	< 92.3		µg/kg dry	92.3	63.7	50	"	"	"	"	"	
74-83-9	Bromomethane	< 185		µg/kg dry	185	166	50	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	< 923		µg/kg dry	923	791	50	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 92.3		µg/kg dry	92.3	46.0	50	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 92.3		µg/kg dry	92.3	89.5	50	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 92.3		µg/kg dry	92.3	66.7	50	"	"	"	"	"	
75-15-0	Carbon disulfide	< 185		µg/kg dry	185	132	50	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 92.3		µg/kg dry	92.3	91.7	50	"	"	"	"	"	
108-90-7	Chlorobenzene	< 92.3		µg/kg dry	92.3	51.6	50	"	"	"	"	"	
75-00-3	Chloroethane	< 185		µg/kg dry	185	131	50	"	"	"	"	"	
67-66-3	Chloroform	< 92.3		µg/kg dry	92.3	45.1	50	"	"	"	"	"	
74-87-3	Chloromethane	< 185		µg/kg dry	185	46.4	50	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 92.3		µg/kg dry	92.3	56.2	50	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 92.3		µg/kg dry	92.3	82.6	50	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	< 185		µg/kg dry	185	174	50	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 92.3		µg/kg dry	92.3	44.3	50	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 92.3		µg/kg dry	92.3	57.2	50	"	"	"	"	"	
74-95-3	Dibromomethane	< 92.3		µg/kg dry	92.3	92.1	50	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 92.3		µg/kg dry	92.3	74.3	50	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 92.3		µg/kg dry	92.3	91.8	50	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 92.3		µg/kg dry	92.3	62.3	50	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 185		µg/kg dry	185	156	50	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 92.3		µg/kg dry	92.3	84.2	50	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 92.3		µg/kg dry	92.3	51.6	50	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 92.3		µg/kg dry	92.3	45.8	50	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	< 92.3		µg/kg dry	92.3	38.7	50	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 92.3		µg/kg dry	92.3	76.6	50	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 92.3		µg/kg dry	92.3	47.0	50	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 92.3		µg/kg dry	92.3	46.4	50	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 92.3		µg/kg dry	92.3	37.2	50	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 92.3		µg/kg dry	92.3	56.9	50	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 92.3		µg/kg dry	92.3	50.3	50	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 92.3		µg/kg dry	92.3	26.0	50	"	"	"	"	"	
100-41-4	Ethylbenzene	< 92.3		µg/kg dry	92.3	56.2	50	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-24 (6-8)	1753-03-01	Soil	21-Feb-12 10:55	21-Feb-12
SB44200-02				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds			GS1										
Prepared by method SW846 5030 Soil (high level)							Initial weight: 11.77 g						
87-68-3	Hexachlorobutadiene	< 92.3		µg/kg dry	92.3	79.5	50	SW846 8260C	28-Feb-12	29-Feb-12	naa	1204395	
591-78-6	2-Hexanone (MBK)	< 923		µg/kg dry	923	235	50	"	"	"	"	"	
98-82-8	Isopropylbenzene	< 92.3		µg/kg dry	92.3	46.3	50	"	"	"	"	"	
99-87-6	4-Isopropyltoluene	< 92.3		µg/kg dry	92.3	38.2	50	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 92.3		µg/kg dry	92.3	67.1	50	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 923		µg/kg dry	923	300	50	"	"	"	"	"	
75-09-2	Methylene chloride	< 185		µg/kg dry	185	46.9	50	"	"	"	"	"	
91-20-3	Naphthalene	< 92.3		µg/kg dry	92.3	57.3	50	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 92.3		µg/kg dry	92.3	55.4	50	"	"	"	"	"	
100-42-5	Styrene	< 92.3		µg/kg dry	92.3	68.3	50	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 92.3		µg/kg dry	92.3	88.6	50	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 92.3		µg/kg dry	92.3	70.1	50	"	"	"	"	"	
127-18-4	Tetrachloroethene	**2,020**		µg/kg dry	92.3	52.8	50	"	"	"	"	"	
108-88-3	Toluene	< 92.3		µg/kg dry	92.3	82.7	50	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 92.3		µg/kg dry	92.3	79.9	50	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 92.3		µg/kg dry	92.3	69.4	50	"	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 92.3		µg/kg dry	92.3	65.3	50	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 92.3		µg/kg dry	92.3	73.9	50	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 92.3		µg/kg dry	92.3	79.3	50	"	"	"	"	"	
79-01-6	Trichloroethene	**7,740**		µg/kg dry	92.3	70.7	50	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 92.3		µg/kg dry	92.3	37.3	50	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 92.3		µg/kg dry	92.3	41.7	50	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 92.3		µg/kg dry	92.3	30.2	50	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 92.3		µg/kg dry	92.3	91.4	50	"	"	"	"	"	
75-01-4	Vinyl chloride	< 92.3		µg/kg dry	92.3	86.5	50	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 185		µg/kg dry	185	179	50	"	"	"	"	"	
95-47-6	o-Xylene	< 92.3		µg/kg dry	92.3	63.0	50	"	"	"	"	"	
109-99-9	Tetrahydrofuran	< 185		µg/kg dry	185	171	50	"	"	"	"	"	
60-29-7	Ethyl ether	< 92.3		µg/kg dry	92.3	86.1	50	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	< 92.3		µg/kg dry	92.3	72.8	50	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 92.3		µg/kg dry	92.3	32.2	50	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 92.3		µg/kg dry	92.3	29.7	50	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 923		µg/kg dry	923	522	50	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 1850		µg/kg dry	1850	1510	50	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-buten e	< 461		µg/kg dry	461	236	50	"	"	"	"	"	
64-17-5	Ethanol	< 36900		µg/kg dry	36900	7720	50	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*98*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*98*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*111*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*101*			*70-130 %*			"	"	"	"	"	
Extractable Petroleum Hydrocarbons													

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-24 (6-8)	1753-03-01	Soil	21-Feb-12 10:55	21-Feb-12
SB44200-02				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Extractable Petroleum Hydrocarbons													
EPH Aliphatic/Aromatic Ranges													
Prepared by method SW846 3545A													
	C9-C18 Aliphatic Hydrocarbons	< 12.2		mg/kg dry	12.2	1.79	1	MADEP EPH 5/2004 R	27-Feb-12	29-Feb-12	MWP	1204235	
	C19-C36 Aliphatic Hydrocarbons	< 12.2		mg/kg dry	12.2	5.96	1	"	"	"	"	"	
	C11-C22 Aromatic Hydrocarbons	< 12.2		mg/kg dry	12.2	4.41	1	"	"	"	"	"	
	Unadjusted C11-C22 Aromatic Hydrocarbons	< 12.2		mg/kg dry	12.2	4.41	1	"	"	"	"	"	
	Total Petroleum Hydrocarbons	< 12.2		mg/kg dry	12.2	12.2	1	"	"	"	"	"	
	Unadjusted Total Petroleum Hydrocarbons	< 12.2		mg/kg dry	12.2	12.2	1	"	"	"	"	"	
EPH Target PAH Analytes													
Prepared by method SW846 3545A													
91-20-3	Naphthalene	< 0.406		mg/kg dry	0.406	0.212	1	"	"	"	"	"	
91-57-6	2-Methylnaphthalene	< 0.406		mg/kg dry	0.406	0.212	1	"	"	"	"	"	
208-96-8	Acenaphthylene	< 0.406		mg/kg dry	0.406	0.238	1	"	"	"	"	"	
83-32-9	Acenaphthene	< 0.406		mg/kg dry	0.406	0.237	1	"	"	"	"	"	
86-73-7	Fluorene	< 0.406		mg/kg dry	0.406	0.240	1	"	"	"	"	"	
85-01-8	Phenanthrene	< 0.406		mg/kg dry	0.406	0.277	1	"	"	"	"	"	
120-12-7	Anthracene	< 0.406		mg/kg dry	0.406	0.301	1	"	"	"	"	"	
206-44-0	Fluoranthene	< 0.406		mg/kg dry	0.406	0.272	1	"	"	"	"	"	
129-00-0	Pyrene	< 0.406		mg/kg dry	0.406	0.293	1	"	"	"	"	"	
56-55-3	Benzo (a) anthracene	< 0.406		mg/kg dry	0.406	0.294	1	"	"	"	"	"	
218-01-9	Chrysene	< 0.406		mg/kg dry	0.406	0.316	1	"	"	"	"	"	
205-99-2	Benzo (b) fluoranthene	< 0.406		mg/kg dry	0.406	0.362	1	"	"	"	"	"	
207-08-9	Benzo (k) fluoranthene	< 0.406		mg/kg dry	0.406	0.339	1	"	"	"	"	"	
50-32-8	Benzo (a) pyrene	< 0.406		mg/kg dry	0.406	0.273	1	"	"	"	"	"	
193-39-5	Indeno (1,2,3-cd) pyrene	< 0.406		mg/kg dry	0.406	0.361	1	"	"	"	"	"	
53-70-3	Dibenzo (a,h) anthracene	< 0.406		mg/kg dry	0.406	0.294	1	"	"	"	"	"	
191-24-2	Benzo (g,h,i) perylene	< 0.406		mg/kg dry	0.406	0.304	1	"	"	"	"	"	
Surrogate recoveries:													
3386-33-2	*1-Chlorooctadecane*	*45*			*40-140 %*			"	"	"	"	"	
84-15-1	*Ortho-Terphenyl*	*47*			*40-140 %*			"	"	"	"	"	
321-60-8	*2-Fluorobiphenyl*	*68*			*40-140 %*			"	"	"	"	"	
General Chemistry Parameters													
	% Solids	79.9		%			1	SM2540 G Mod.	22-Feb-12	22-Feb-12	DT	1203971	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-27 (0-2)	1753-03-01	Soil	21-Feb-12 11:17	21-Feb-12
SB44200-03				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
	VOC Extraction	**Field extracted**		N/A			1	VOC Soil Extraction	22-Feb-12	22-Feb-12	KK	1203968	
Volatile Organic Compounds			VOC8										
Prepared by method SW846 5030 Soil (high level)							Initial weight: 9.88 g						
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 92.7		µg/kg dry	92.7	61.9	50	SW846 8260C	28-Feb-12	29-Feb-12	naa	1204395	
67-64-1	Acetone	< 927		µg/kg dry	927	697	50	"	"	"	"	"	
107-13-1	Acrylonitrile	< 92.7		µg/kg dry	92.7	83.0	50	"	"	"	"	"	
71-43-2	Benzene	< 92.7		µg/kg dry	92.7	48.7	50	"	"	"	"	"	
108-86-1	Bromobenzene	< 92.7		µg/kg dry	92.7	59.2	50	"	"	"	"	"	
74-97-5	Bromochloromethane	< 92.7		µg/kg dry	92.7	30.4	50	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 92.7		µg/kg dry	92.7	35.1	50	"	"	"	"	"	
75-25-2	Bromoform	< 92.7		µg/kg dry	92.7	64.1	50	"	"	"	"	"	
74-83-9	Bromomethane	< 185		µg/kg dry	185	167	50	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	< 927		µg/kg dry	927	795	50	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 92.7		µg/kg dry	92.7	46.3	50	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 92.7		µg/kg dry	92.7	90.0	50	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 92.7		µg/kg dry	92.7	67.1	50	"	"	"	"	"	
75-15-0	Carbon disulfide	< 185		µg/kg dry	185	133	50	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 92.7		µg/kg dry	92.7	92.2	50	"	"	"	"	"	
108-90-7	Chlorobenzene	< 92.7		µg/kg dry	92.7	51.8	50	"	"	"	"	"	
75-00-3	Chloroethane	< 185		µg/kg dry	185	131	50	"	"	"	"	"	
67-66-3	Chloroform	< 92.7		µg/kg dry	92.7	45.4	50	"	"	"	"	"	
74-87-3	Chloromethane	< 185		µg/kg dry	185	46.6	50	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 92.7		µg/kg dry	92.7	56.5	50	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 92.7		µg/kg dry	92.7	83.0	50	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	< 185		µg/kg dry	185	175	50	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 92.7		µg/kg dry	92.7	44.5	50	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 92.7		µg/kg dry	92.7	57.5	50	"	"	"	"	"	
74-95-3	Dibromomethane	< 92.7		µg/kg dry	92.7	92.6	50	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 92.7		µg/kg dry	92.7	74.7	50	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 92.7		µg/kg dry	92.7	92.3	50	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 92.7		µg/kg dry	92.7	62.6	50	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 185		µg/kg dry	185	156	50	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 92.7		µg/kg dry	92.7	84.7	50	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 92.7		µg/kg dry	92.7	51.8	50	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 92.7		µg/kg dry	92.7	46.0	50	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	< 92.7		µg/kg dry	92.7	39.0	50	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 92.7		µg/kg dry	92.7	77.0	50	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 92.7		µg/kg dry	92.7	47.2	50	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 92.7		µg/kg dry	92.7	46.6	50	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 92.7		µg/kg dry	92.7	37.4	50	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 92.7		µg/kg dry	92.7	57.2	50	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 92.7		µg/kg dry	92.7	50.5	50	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 92.7		µg/kg dry	92.7	26.2	50	"	"	"	"	"	
100-41-4	Ethylbenzene	< 92.7		µg/kg dry	92.7	56.5	50	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-27 (0-2)	1753-03-01	Soil	21-Feb-12 11:17	21-Feb-12
SB44200-03				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds			VOC8										
Prepared by method SW846 5030 Soil (high level)							Initial weight: 9.88 g						
87-68-3	Hexachlorobutadiene	< 92.7		µg/kg dry	92.7	79.9	50	SW846 8260C	28-Feb-12	29-Feb-12	naa	1204395	
591-78-6	2-Hexanone (MBK)	< 927		µg/kg dry	927	237	50	"	"	"	"	"	
98-82-8	Isopropylbenzene	< 92.7		µg/kg dry	92.7	46.6	50	"	"	"	"	"	
99-87-6	4-Isopropyltoluene	< 92.7		µg/kg dry	92.7	38.4	50	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 92.7		µg/kg dry	92.7	67.4	50	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 927		µg/kg dry	927	302	50	"	"	"	"	"	
75-09-2	Methylene chloride	< 185		µg/kg dry	185	47.1	50	"	"	"	"	"	
91-20-3	Naphthalene	< 92.7		µg/kg dry	92.7	57.6	50	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 92.7		µg/kg dry	92.7	55.6	50	"	"	"	"	"	
100-42-5	Styrene	< 92.7		µg/kg dry	92.7	68.6	50	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 92.7		µg/kg dry	92.7	89.0	50	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 92.7		µg/kg dry	92.7	70.5	50	"	"	"	"	"	
127-18-4	Tetrachloroethene	< 92.7		µg/kg dry	92.7	53.0	50	"	"	"	"	"	
108-88-3	Toluene	< 92.7		µg/kg dry	92.7	83.1	50	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 92.7		µg/kg dry	92.7	80.3	50	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 92.7		µg/kg dry	92.7	69.7	50	"	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 92.7		µg/kg dry	92.7	65.7	50	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 92.7		µg/kg dry	92.7	74.3	50	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 92.7		µg/kg dry	92.7	79.8	50	"	"	"	"	"	
79-01-6	Trichloroethene	< 92.7		µg/kg dry	92.7	71.0	50	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 92.7		µg/kg dry	92.7	37.5	50	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 92.7		µg/kg dry	92.7	41.9	50	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 92.7		µg/kg dry	92.7	30.3	50	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 92.7		µg/kg dry	92.7	91.9	50	"	"	"	"	"	
75-01-4	Vinyl chloride	< 92.7		µg/kg dry	92.7	87.0	50	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 185		µg/kg dry	185	180	50	"	"	"	"	"	
95-47-6	o-Xylene	< 92.7		µg/kg dry	92.7	63.3	50	"	"	"	"	"	
109-99-9	Tetrahydrofuran	< 185		µg/kg dry	185	172	50	"	"	"	"	"	
60-29-7	Ethyl ether	< 92.7		µg/kg dry	92.7	86.5	50	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	< 92.7		µg/kg dry	92.7	73.2	50	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 92.7		µg/kg dry	92.7	32.4	50	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 92.7		µg/kg dry	92.7	29.9	50	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 927		µg/kg dry	927	525	50	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 1850		µg/kg dry	1850	1520	50	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-buten e	< 464		µg/kg dry	464	238	50	"	"	"	"	"	
64-17-5	Ethanol	< 37100		µg/kg dry	37100	7760	50	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*96*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*98*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*108*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*97*			*70-130 %*			"	"	"	"	"	
Extractable Petroleum Hydrocarbons													

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-27 (0-2)	1753-03-01	Soil	21-Feb-12 11:17	21-Feb-12
SB44200-03				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Extractable Petroleum Hydrocarbons													
EPH Aliphatic/Aromatic Ranges													
Prepared by method SW846 3545A													
	C9-C18 Aliphatic Hydrocarbons	< 11.3		mg/kg dry	11.3	1.65	1	MADEP EPH 5/2004 R	27-Feb-12	29-Feb-12	MWP	1204235	
	C19-C36 Aliphatic Hydrocarbons	< 11.3		mg/kg dry	11.3	5.51	1	"	"	"	"	"	
	C11-C22 Aromatic Hydrocarbons	< 11.3		mg/kg dry	11.3	4.08	1	"	"	"	"	"	
	Unadjusted C11-C22 Aromatic Hydrocarbons	< 11.3		mg/kg dry	11.3	4.08	1	"	"	"	"	"	
	Total Petroleum Hydrocarbons	< 11.3		mg/kg dry	11.3	11.2	1	"	"	"	"	"	
	Unadjusted Total Petroleum Hydrocarbons	< 11.3		mg/kg dry	11.3	11.2	1	"	"	"	"	"	
EPH Target PAH Analytes													
Prepared by method SW846 3545A													
91-20-3	Naphthalene	< 0.375		mg/kg dry	0.375	0.196	1	"	"	"	"	"	
91-57-6	2-Methylnaphthalene	< 0.375		mg/kg dry	0.375	0.196	1	"	"	"	"	"	
208-96-8	Acenaphthylene	< 0.375		mg/kg dry	0.375	0.220	1	"	"	"	"	"	
83-32-9	Acenaphthene	< 0.375		mg/kg dry	0.375	0.219	1	"	"	"	"	"	
86-73-7	Fluorene	< 0.375		mg/kg dry	0.375	0.222	1	"	"	"	"	"	
85-01-8	Phenanthrene	< 0.375		mg/kg dry	0.375	0.255	1	"	"	"	"	"	
120-12-7	Anthracene	< 0.375		mg/kg dry	0.375	0.278	1	"	"	"	"	"	
206-44-0	Fluoranthene	< 0.375		mg/kg dry	0.375	0.251	1	"	"	"	"	"	
129-00-0	Pyrene	< 0.375		mg/kg dry	0.375	0.270	1	"	"	"	"	"	
56-55-3	Benzo (a) anthracene	< 0.375		mg/kg dry	0.375	0.272	1	"	"	"	"	"	
218-01-9	Chrysene	< 0.375		mg/kg dry	0.375	0.292	1	"	"	"	"	"	
205-99-2	Benzo (b) fluoranthene	< 0.375		mg/kg dry	0.375	0.334	1	"	"	"	"	"	
207-08-9	Benzo (k) fluoranthene	< 0.375		mg/kg dry	0.375	0.313	1	"	"	"	"	"	
50-32-8	Benzo (a) pyrene	< 0.375		mg/kg dry	0.375	0.252	1	"	"	"	"	"	
193-39-5	Indeno (1,2,3-cd) pyrene	< 0.375		mg/kg dry	0.375	0.333	1	"	"	"	"	"	
53-70-3	Dibenzo (a,h) anthracene	< 0.375		mg/kg dry	0.375	0.272	1	"	"	"	"	"	
191-24-2	Benzo (g,h,i) perylene	< 0.375		mg/kg dry	0.375	0.281	1	"	"	"	"	"	
Surrogate recoveries:													
3386-33-2	*1-Chlorooctadecane*	*83*			*40-140 %*			"	"	"	"	"	
84-15-1	*Ortho-Terphenyl*	*68*			*40-140 %*			"	"	"	"	"	
321-60-8	*2-Fluorobiphenyl*	*91*			*40-140 %*			"	"	"	"	"	
Total Metals by EPA 6000/7000 Series Methods													
7440-22-4	Silver	< 1.62		mg/kg dry	1.62	0.249	1	SW846 6010C	29-Feb-12	01-Mar-12	EDT	1204322	
7429-90-5	Aluminum	**8,120**		mg/kg dry	5.39	0.754	1	"	"	"	"	"	
7440-38-2	Arsenic	**2.97**		mg/kg dry	1.62	0.260	1	"	"	"	"	"	
7440-39-3	Barium	**7.12**		mg/kg dry	1.08	0.260	1	"	"	"	"	"	
7440-41-7	Beryllium	< 0.539		mg/kg dry	0.539	0.173	1	"	"	"	"	"	
7440-70-2	Calcium	**767**		mg/kg dry	26.9	6.75	1	"	"	"	"	"	
7440-43-9	Cadmium	< 0.539		mg/kg dry	0.539	0.0595	1	"	"	"	"	"	
7440-48-4	Cobalt	**3.20**		mg/kg dry	1.08	0.120	1	"	"	"	"	"	
7440-47-3	Chromium	**11.2**		mg/kg dry	1.08	0.393	1	"	"	"	"	"	
7440-50-8	Copper	**5.17**		mg/kg dry	1.08	0.121	1	"	"	"	"	"	
7439-89-6	Iron	**14,700**		mg/kg dry	4.31	0.794	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-27 (0-2)	1753-03-01	Soil	21-Feb-12 11:17	21-Feb-12
SB44200-03				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Total Metals by EPA 6000/7000 Series Methods													
7439-97-6	Mercury	< 0.0313		mg/kg dry	0.0313	0.0064	1	SW846 7471B	29-Feb-12	01-Mar-12	RH	1204423	
7440-09-7	Potassium	**375**		mg/kg dry	53.9	13.5	1	SW846 6010C	"	02-Mar-12	EDT	1204322	
7439-95-4	Magnesium	**2,190**		mg/kg dry	5.39	0.154	1	"	"	01-Mar-12	"	"	
7439-96-5	Manganese	**89.2**		mg/kg dry	1.08	0.0583	1	"	"	"	"	"	
7440-23-5	Sodium	**56.7**		mg/kg dry	26.9	3.41	1	"	"	"	"	"	
7440-02-0	Nickel	**9.59**		mg/kg dry	1.08	0.0742	1	"	"	"	"	"	
7439-92-1	Lead	**4.93**		mg/kg dry	1.62	0.192	1	"	"	"	"	"	
7440-36-0	Antimony	< 5.39		mg/kg dry	5.39	0.237	1	"	"	"	"	"	
7782-49-2	Selenium	< 1.62		mg/kg dry	1.62	0.239	1	"	"	"	"	"	
7440-28-0	Thallium	< 3.23		mg/kg dry	3.23	0.266	1	"	"	"	"	"	
7440-62-2	Vanadium	**14.8**		mg/kg dry	1.62	0.283	1	"	"	"	"	"	
7440-66-6	Zinc	**22.2**		mg/kg dry	1.08	0.234	1	"	"	"	"	"	
General Chemistry Parameters													
	% Solids	**88.2**		%			1	SM2540 G Mod.	22-Feb-12	22-Feb-12	DT	1203971	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-27 (6-8)	1753-03-01	Soil	21-Feb-12 11:22	21-Feb-12
SB44200-04				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Extractable Petroleum Hydrocarbons													
EPH Aliphatic/Aromatic Ranges													
Prepared by method SW846 3545A													
	C9-C18 Aliphatic Hydrocarbons	< 13.0		mg/kg dry	13.0	1.92	1	MADEP EPH 5/2004 R	27-Feb-12	29-Feb-12	MWP	1204235	
	C19-C36 Aliphatic Hydrocarbons	< 13.0		mg/kg dry	13.0	6.37	1	"	"	"	"	"	
	C11-C22 Aromatic Hydrocarbons	< 13.0		mg/kg dry	13.0	4.72	1	"	"	"	"	"	
	Unadjusted C11-C22 Aromatic Hydrocarbons	< 13.0		mg/kg dry	13.0	4.72	1	"	"	"	"	"	
	Total Petroleum Hydrocarbons	< 13.0		mg/kg dry	13.0	13.0	1	"	"	"	"	"	
	Unadjusted Total Petroleum Hydrocarbons	< 13.0		mg/kg dry	13.0	13.0	1	"	"	"	"	"	
EPH Target PAH Analytes													
Prepared by method SW846 3545A													
91-20-3	Naphthalene	< 0.434		mg/kg dry	0.434	0.227	1	"	"	"	"	"	
91-57-6	2-Methylnaphthalene	< 0.434		mg/kg dry	0.434	0.227	1	"	"	"	"	"	
208-96-8	Acenaphthylene	< 0.434		mg/kg dry	0.434	0.254	1	"	"	"	"	"	
83-32-9	Acenaphthene	< 0.434		mg/kg dry	0.434	0.254	1	"	"	"	"	"	
86-73-7	Fluorene	< 0.434		mg/kg dry	0.434	0.256	1	"	"	"	"	"	
85-01-8	Phenanthrene	< 0.434		mg/kg dry	0.434	0.296	1	"	"	"	"	"	
120-12-7	Anthracene	< 0.434		mg/kg dry	0.434	0.322	1	"	"	"	"	"	
206-44-0	Fluoranthene	< 0.434		mg/kg dry	0.434	0.291	1	"	"	"	"	"	
129-00-0	Pyrene	< 0.434		mg/kg dry	0.434	0.313	1	"	"	"	"	"	
56-55-3	Benzo (a) anthracene	< 0.434		mg/kg dry	0.434	0.314	1	"	"	"	"	"	
218-01-9	Chrysene	< 0.434		mg/kg dry	0.434	0.337	1	"	"	"	"	"	
205-99-2	Benzo (b) fluoranthene	< 0.434		mg/kg dry	0.434	0.387	1	"	"	"	"	"	
207-08-9	Benzo (k) fluoranthene	< 0.434		mg/kg dry	0.434	0.362	1	"	"	"	"	"	
50-32-8	Benzo (a) pyrene	< 0.434		mg/kg dry	0.434	0.292	1	"	"	"	"	"	
193-39-5	Indeno (1,2,3-cd) pyrene	< 0.434		mg/kg dry	0.434	0.386	1	"	"	"	"	"	
53-70-3	Dibenzo (a,h) anthracene	< 0.434		mg/kg dry	0.434	0.315	1	"	"	"	"	"	
191-24-2	Benzo (g,h,i) perylene	< 0.434		mg/kg dry	0.434	0.325	1	"	"	"	"	"	
Surrogate recoveries:													
3386-33-2	*1-Chlorooctadecane*	*73*			*40-140 %*			"	"	"	"	"	
84-15-1	*Ortho-Terphenyl*	*70*			*40-140 %*			"	"	"	"	"	
321-60-8	*2-Fluorobiphenyl*	*86*			*40-140 %*			"	"	"	"	"	
General Chemistry Parameters													
	% Solids	76.2		%			1	SM2540 G Mod.	22-Feb-12	22-Feb-12	DT	1203971	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-30 (6-8)	1753-03-01	Soil	21-Feb-12 11:55	21-Feb-12
SB44200-05				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
	VOC Extraction	**Field extracted**		N/A			1	VOC Soil Extraction	22-Feb-12	22-Feb-12	KK	1203968	
Volatile Organic Compounds			R05										
Prepared by method SW846 5030 Soil (high level)							Initial weight: 11.97 g						
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 86.2		µg/kg dry	86.2	57.5	50	SW846 8260C	28-Feb-12	29-Feb-12	naa	1204395	
67-64-1	Acetone	< 862		µg/kg dry	862	648	50	"	"	"	"	"	
107-13-1	Acrylonitrile	< 86.2		µg/kg dry	86.2	77.2	50	"	"	"	"	"	
71-43-2	Benzene	< 86.2		µg/kg dry	86.2	45.3	50	"	"	"	"	"	
108-86-1	Bromobenzene	< 86.2		µg/kg dry	86.2	55.0	50	"	"	"	"	"	
74-97-5	Bromochloromethane	< 86.2		µg/kg dry	86.2	28.3	50	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 86.2		µg/kg dry	86.2	32.6	50	"	"	"	"	"	
75-25-2	Bromoform	< 86.2		µg/kg dry	86.2	59.6	50	"	"	"	"	"	
74-83-9	Bromomethane	< 172		µg/kg dry	172	155	50	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	< 862		µg/kg dry	862	740	50	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 86.2		µg/kg dry	86.2	43.0	50	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 86.2		µg/kg dry	86.2	83.6	50	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 86.2		µg/kg dry	86.2	62.3	50	"	"	"	"	"	
75-15-0	Carbon disulfide	< 172		µg/kg dry	172	123	50	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 86.2		µg/kg dry	86.2	85.7	50	"	"	"	"	"	
108-90-7	Chlorobenzene	< 86.2		µg/kg dry	86.2	48.2	50	"	"	"	"	"	
75-00-3	Chloroethane	< 172		µg/kg dry	172	122	50	"	"	"	"	"	
67-66-3	Chloroform	< 86.2		µg/kg dry	86.2	42.2	50	"	"	"	"	"	
74-87-3	Chloromethane	< 172		µg/kg dry	172	43.4	50	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 86.2		µg/kg dry	86.2	52.5	50	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 86.2		µg/kg dry	86.2	77.2	50	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	< 172		µg/kg dry	172	163	50	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 86.2		µg/kg dry	86.2	41.4	50	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 86.2		µg/kg dry	86.2	53.5	50	"	"	"	"	"	
74-95-3	Dibromomethane	< 86.2		µg/kg dry	86.2	86.1	50	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 86.2		µg/kg dry	86.2	69.4	50	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 86.2		µg/kg dry	86.2	85.8	50	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 86.2		µg/kg dry	86.2	58.2	50	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 172		µg/kg dry	172	145	50	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 86.2		µg/kg dry	86.2	78.7	50	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 86.2		µg/kg dry	86.2	48.2	50	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 86.2		µg/kg dry	86.2	42.8	50	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	< 86.2		µg/kg dry	86.2	36.2	50	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 86.2		µg/kg dry	86.2	71.6	50	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 86.2		µg/kg dry	86.2	43.9	50	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 86.2		µg/kg dry	86.2	43.4	50	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 86.2		µg/kg dry	86.2	34.7	50	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 86.2		µg/kg dry	86.2	53.2	50	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 86.2		µg/kg dry	86.2	47.0	50	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 86.2		µg/kg dry	86.2	24.3	50	"	"	"	"	"	
100-41-4	Ethylbenzene	< 86.2		µg/kg dry	86.2	52.5	50	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-30 (6-8)	1753-03-01	Soil	21-Feb-12 11:55	21-Feb-12
SB44200-05				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds			R05										
Prepared by method SW846 5030 Soil (high level)							Initial weight: 11.97 g						
87-68-3	Hexachlorobutadiene	< 86.2		µg/kg dry	86.2	74.3	50	SW846 8260C	28-Feb-12	29-Feb-12	naa	1204395	
591-78-6	2-Hexanone (MBK)	< 862		µg/kg dry	862	220	50	"	"	"	"	"	
98-82-8	Isopropylbenzene	< 86.2		µg/kg dry	86.2	43.3	50	"	"	"	"	"	
99-87-6	4-Isopropyltoluene	< 86.2		µg/kg dry	86.2	35.7	50	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 86.2		µg/kg dry	86.2	62.7	50	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 862		µg/kg dry	862	280	50	"	"	"	"	"	
75-09-2	Methylene chloride	< 172		µg/kg dry	172	43.8	50	"	"	"	"	"	
91-20-3	Naphthalene	< 86.2		µg/kg dry	86.2	53.5	50	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 86.2		µg/kg dry	86.2	51.7	50	"	"	"	"	"	
100-42-5	Styrene	< 86.2		µg/kg dry	86.2	63.8	50	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 86.2		µg/kg dry	86.2	82.8	50	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 86.2		µg/kg dry	86.2	65.5	50	"	"	"	"	"	
127-18-4	Tetrachloroethene	< 86.2		µg/kg dry	86.2	49.3	50	"	"	"	"	"	
108-88-3	Toluene	< 86.2		µg/kg dry	86.2	77.3	50	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 86.2		µg/kg dry	86.2	74.7	50	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 86.2		µg/kg dry	86.2	64.8	50	"	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 86.2		µg/kg dry	86.2	61.0	50	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 86.2		µg/kg dry	86.2	69.1	50	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 86.2		µg/kg dry	86.2	74.2	50	"	"	"	"	"	
79-01-6	Trichloroethene	< 86.2		µg/kg dry	86.2	66.0	50	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 86.2		µg/kg dry	86.2	34.8	50	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 86.2		µg/kg dry	86.2	39.0	50	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 86.2		µg/kg dry	86.2	28.2	50	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 86.2		µg/kg dry	86.2	85.5	50	"	"	"	"	"	
75-01-4	Vinyl chloride	< 86.2		µg/kg dry	86.2	80.9	50	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 172		µg/kg dry	172	167	50	"	"	"	"	"	
95-47-6	o-Xylene	< 86.2		µg/kg dry	86.2	58.9	50	"	"	"	"	"	
109-99-9	Tetrahydrofuran	< 172		µg/kg dry	172	160	50	"	"	"	"	"	
60-29-7	Ethyl ether	< 86.2		µg/kg dry	86.2	80.4	50	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	< 86.2		µg/kg dry	86.2	68.0	50	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 86.2		µg/kg dry	86.2	30.1	50	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 86.2		µg/kg dry	86.2	27.8	50	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 862		µg/kg dry	862	488	50	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 1720		µg/kg dry	1720	1410	50	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-buten e	< 431		µg/kg dry	431	221	50	"	"	"	"	"	
64-17-5	Ethanol	< 34500		µg/kg dry	34500	7210	50	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*104*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*100*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*117*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*102*			*70-130 %*			"	"	"	"	"	
VPH Aliphatic/Aromatic Carbon Ranges													

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-30 (6-8)	1753-03-01	Soil	21-Feb-12 11:55	21-Feb-12
SB44200-05				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
VPH Aliphatic/Aromatic Carbon Ranges													
Prepared by method VPH - EPA 5030B						Initial weight: 11.97 g							
	C5-C8 Aliphatic Hydrocarbons	4.87		mg/kg dry	1.29	0.121	50	MADEP VPH 5/2004 Rev. 1.1	28-Feb-12	29-Feb-12	mp	1204348	
	C9-C12 Aliphatic Hydrocarbons	19.5		mg/kg dry	0.431	0.0629	50	"	"	"	"	"	
	C9-C10 Aromatic Hydrocarbons	5.82		mg/kg dry	0.431	0.0111	50	"	"	"	"	"	
	Unadjusted C5-C8 Aliphatic Hydrocarbons	4.87		mg/kg dry	1.29	0.0992	50	"	"	"	"	"	
	Unadjusted C9-C12 Aliphatic Hydrocarbons	25.4		mg/kg dry	0.431	0.0591	50	"	"	"	"	"	
VPH Target Analytes													
Prepared by method VPH - EPA 5030B						Initial weight: 11.97 g							
71-43-2	Benzene	< 0.09		mg/kg dry	0.09	0.02	50	"	"	"	"	"	
100-41-4	Ethylbenzene	< 0.09		mg/kg dry	0.09	0.02	50	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 0.09		mg/kg dry	0.09	0.01	50	"	"	"	"	"	
91-20-3	Naphthalene	< 0.09		mg/kg dry	0.09	0.02	50	"	"	"	"	"	
108-88-3	Toluene	< 0.09		mg/kg dry	0.09	0.02	50	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 0.2		mg/kg dry	0.2	0.05	50	"	"	"	"	"	
95-47-6	o-Xylene	< 0.09		mg/kg dry	0.09	0.02	50	"	"	"	"	"	
Surrogate recoveries:													
615-59-8	*2,5-Dibromotoluene (FID)*	*87*			*70-130 %*			"	"	"	"	"	
615-59-8	*2,5-Dibromotoluene (PID)*	*76*			*70-130 %*			"	"	"	"	"	
Extractable Petroleum Hydrocarbons													
EPH Aliphatic/Aromatic Ranges													
Prepared by method SW846 3545A													
	C9-C18 Aliphatic Hydrocarbons	< 11.4		mg/kg dry	11.4	1.67	1	MADEP EPH 5/2004 R	27-Feb-12	29-Feb-12	MWP	1204235	
	C19-C36 Aliphatic Hydrocarbons	< 11.4		mg/kg dry	11.4	5.57	1	"	"	"	"	"	
	C11-C22 Aromatic Hydrocarbons	< 11.4		mg/kg dry	11.4	4.12	1	"	"	"	"	"	
	Unadjusted C11-C22 Aromatic Hydrocarbons	< 11.4		mg/kg dry	11.4	4.12	1	"	"	"	"	"	
	Total Petroleum Hydrocarbons	< 11.4		mg/kg dry	11.4	11.4	1	"	"	"	"	"	
	Unadjusted Total Petroleum Hydrocarbons	< 11.4		mg/kg dry	11.4	11.4	1	"	"	"	"	"	
EPH Target PAH Analytes													
Prepared by method SW846 3545A													
91-20-3	Naphthalene	< 0.379		mg/kg dry	0.379	0.198	1	"	"	"	"	"	
91-57-6	2-Methylnaphthalene	< 0.379		mg/kg dry	0.379	0.198	1	"	"	"	"	"	
208-96-8	Acenaphthylene	< 0.379		mg/kg dry	0.379	0.222	1	"	"	"	"	"	
83-32-9	Acenaphthene	< 0.379		mg/kg dry	0.379	0.222	1	"	"	"	"	"	
86-73-7	Fluorene	< 0.379		mg/kg dry	0.379	0.224	1	"	"	"	"	"	
85-01-8	Phenanthrene	< 0.379		mg/kg dry	0.379	0.258	1	"	"	"	"	"	
120-12-7	Anthracene	< 0.379		mg/kg dry	0.379	0.281	1	"	"	"	"	"	
206-44-0	Fluoranthene	< 0.379		mg/kg dry	0.379	0.254	1	"	"	"	"	"	
129-00-0	Pyrene	< 0.379		mg/kg dry	0.379	0.273	1	"	"	"	"	"	
56-55-3	Benzo (a) anthracene	< 0.379		mg/kg dry	0.379	0.275	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-30 (6-8)	1753-03-01	Soil	21-Feb-12 11:55	21-Feb-12
SB44200-05				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Extractable Petroleum Hydrocarbons													
EPH Target PAH Analytes													
Prepared by method SW846 3545A													
218-01-9	Chrysene	< 0.379		mg/kg dry	0.379	0.295	1	MADEP EPH 5/2004 R	27-Feb-12	29-Feb-12	MWP	1204235	
205-99-2	Benzo (b) fluoranthene	< 0.379		mg/kg dry	0.379	0.338	1	"	"	"	"	"	
207-08-9	Benzo (k) fluoranthene	< 0.379		mg/kg dry	0.379	0.316	1	"	"	"	"	"	
50-32-8	Benzo (a) pyrene	< 0.379		mg/kg dry	0.379	0.255	1	"	"	"	"	"	
193-39-5	Indeno (1,2,3-cd) pyrene	< 0.379		mg/kg dry	0.379	0.337	1	"	"	"	"	"	
53-70-3	Dibenzo (a,h) anthracene	< 0.379		mg/kg dry	0.379	0.275	1	"	"	"	"	"	
191-24-2	Benzo (g,h,i) perylene	< 0.379		mg/kg dry	0.379	0.284	1	"	"	"	"	"	
Surrogate recoveries:													
3386-33-2	*1-Chlorooctadecane*	*90*			*40-140 %*			"	"	"	"	"	
84-15-1	*Ortho-Terphenyl*	*71*			*40-140 %*			"	"	"	"	"	
321-60-8	*2-Fluorobiphenyl*	*97*			*40-140 %*			"	"	"	"	"	
General Chemistry Parameters													
	% Solids	**82.7**		%			1	SM2540 G Mod.	22-Feb-12	22-Feb-12	DT	1203971	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-29 (0-1)	1753-03-01	Soil	21-Feb-12 10:18	21-Feb-12
SB44200-06				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Total Metals by EPA 6000/7000 Series Methods													
7440-22-4	Silver	**195**		mg/kg dry	1.69	0.260	1	SW846 6010C	29-Feb-12	01-Mar-12	EDT	1204322	
7429-90-5	Aluminum	**12,900**		mg/kg dry	5.63	0.789	1	"	"	"	"	"	
7440-38-2	Arsenic	**7.60**		mg/kg dry	1.69	0.272	1	"	"	"	"	"	
7440-39-3	Barium	**179**		mg/kg dry	1.13	0.272	1	"	"	"	"	"	
7440-41-7	Beryllium	< 0.563		mg/kg dry	0.563	0.181	1	"	"	"	"	"	
7440-70-2	Calcium	**1,200**		mg/kg dry	28.2	7.06	1	"	"	"	"	"	
7440-43-9	Cadmium	**1.28**		mg/kg dry	0.563	0.0622	1	"	"	"	"	"	
7440-48-4	Cobalt	**9.85**		mg/kg dry	1.13	0.125	1	"	"	"	"	"	
7440-47-3	Chromium	**22.3**		mg/kg dry	1.13	0.411	1	"	"	"	"	"	
7440-50-8	Copper	**1,770**		mg/kg dry	1.13	0.127	1	"	"	"	"	"	
7439-89-6	Iron	**24,300**		mg/kg dry	4.51	0.830	1	"	"	"	"	"	
7439-97-6	Mercury	**0.257**		mg/kg dry	0.0342	0.0070	1	SW846 7471B	"	01-Mar-12	RH	1204423	
7440-09-7	Potassium	**2,090**		mg/kg dry	56.3	14.1	1	SW846 6010C	"	02-Mar-12	EDT	1204322	
7439-95-4	Magnesium	**4,510**		mg/kg dry	5.63	0.161	1	"	"	01-Mar-12	"	"	
7439-96-5	Manganese	**373**		mg/kg dry	1.13	0.0610	1	"	"	"	"	"	
7440-23-5	Sodium	**72.5**		mg/kg dry	28.2	3.57	1	"	"	"	"	"	
7440-02-0	Nickel	**29.3**		mg/kg dry	1.13	0.0776	1	"	"	"	"	"	
7439-92-1	Lead	**494**		mg/kg dry	1.69	0.200	1	"	"	"	"	"	
7440-36-0	Antimony	**10.5**		mg/kg dry	5.63	0.248	1	"	"	"	"	"	
7782-49-2	Selenium	< 1.69		mg/kg dry	1.69	0.250	1	"	"	"	"	"	
7440-28-0	Thallium	< 3.38		mg/kg dry	3.38	0.278	1	"	"	"	"	"	
7440-62-2	Vanadium	**50.5**		mg/kg dry	1.69	0.296	1	"	"	"	"	"	
7440-66-6	Zinc	**1,810**	GS1	mg/kg dry	11.3	2.45	10	"	"	02-Mar-12	"	"	
TCLP Metals by EPA 1311 & 6000/7000 Series Methods													
	TCLP Extraction	**Completed**		N/A			1	SW846 1311	13-Mar-12	14-Mar-12	KK	1205610	
7440-22-4	Silver	**0.225**		mg/l	0.0100	0.0045	1	SW846 1311/6010C	14-Mar-12	15-Mar-12	LR	1205728	
7439-92-1	Lead	**0.989**		mg/l	0.0150	0.0048	1	"	"	"	"	"	
General Chemistry Parameters													
	% Solids	**85.8**		%			1	SM2540 G Mod.	22-Feb-12	22-Feb-12	DT	1203972	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-29 (1-2)	1753-03-01	Soil	21-Feb-12 10:20	21-Feb-12
SB44200-07				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Total Metals by EPA 6000/7000 Series Methods													
7440-22-4	Silver	**109**		mg/kg dry	1.62	0.250	1	SW846 6010C	29-Feb-12	01-Mar-12	EDT	1204322	
7429-90-5	Aluminum	**5,290**		mg/kg dry	5.41	0.758	1	"	"	"	"	"	
7440-38-2	Arsenic	**6.03**		mg/kg dry	1.62	0.261	1	"	"	"	"	"	
7440-39-3	Barium	**42.6**		mg/kg dry	1.08	0.262	1	"	"	"	"	"	
7440-41-7	Beryllium	< 0.541		mg/kg dry	0.541	0.174	1	"	"	"	"	"	
7440-70-2	Calcium	**737**		mg/kg dry	27.1	6.78	1	"	"	"	"	"	
7440-43-9	Cadmium	< 0.541		mg/kg dry	0.541	0.0598	1	"	"	"	"	"	
7440-48-4	Cobalt	**3.55**		mg/kg dry	1.08	0.120	1	"	"	"	"	"	
7440-47-3	Chromium	**8.65**		mg/kg dry	1.08	0.395	1	"	"	"	"	"	
7440-50-8	Copper	**321**		mg/kg dry	1.08	0.122	1	"	"	"	"	"	
7439-89-6	Iron	**9,750**		mg/kg dry	4.33	0.798	1	"	"	"	"	"	
7439-97-6	Mercury	**0.111**		mg/kg dry	0.0301	0.0062	1	SW846 7471B	"	01-Mar-12	RH	1204423	
7440-09-7	Potassium	**844**		mg/kg dry	54.1	13.6	1	SW846 6010C	"	02-Mar-12	EDT	1204322	
7439-95-4	Magnesium	**1,590**		mg/kg dry	5.41	0.154	1	"	"	01-Mar-12	"	"	
7439-96-5	Manganese	**139**		mg/kg dry	1.08	0.0586	1	"	"	"	"	"	
7440-23-5	Sodium	**48.8**		mg/kg dry	27.1	3.43	1	"	"	"	"	"	
7440-02-0	Nickel	**11.0**		mg/kg dry	1.08	0.0746	1	"	"	"	"	"	
7439-92-1	Lead	**512**		mg/kg dry	1.62	0.193	1	"	"	"	"	"	
7440-36-0	Antimony	**9.26**		mg/kg dry	5.41	0.238	1	"	"	"	"	"	
7782-49-2	Selenium	< 1.62		mg/kg dry	1.62	0.240	1	"	"	"	"	"	
7440-28-0	Thallium	< 3.25		mg/kg dry	3.25	0.267	1	"	"	"	"	"	
7440-62-2	Vanadium	**19.3**		mg/kg dry	1.62	0.284	1	"	"	"	"	"	
7440-66-6	Zinc	**166**		mg/kg dry	1.08	0.235	1	"	"	"	"	"	
General Chemistry Parameters													
	% Solids	**90.4**		%			1	SM2540 G Mod.	22-Feb-12	22-Feb-12	DT	1203972	

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1204348 - VPH - EPA 5030B										
Blank (1204348-BLK1)						Prepared & Analyzed: 28-Feb-12				
C5-C8 Aliphatic Hydrocarbons	< 0.750		mg/kg wet	0.750						
C9-C12 Aliphatic Hydrocarbons	< 0.250		mg/kg wet	0.250						
C9-C10 Aromatic Hydrocarbons	< 0.250		mg/kg wet	0.250						
Unadjusted C5-C8 Aliphatic Hydrocarbons	< 0.750		mg/kg wet	0.750						
Unadjusted C9-C12 Aliphatic Hydrocarbons	< 0.250		mg/kg wet	0.250						
Benzene	< 0.05		mg/kg wet	0.05						
Ethylbenzene	< 0.05		mg/kg wet	0.05						
Methyl tert-butyl ether	< 0.05		mg/kg wet	0.05						
Naphthalene	< 0.05		mg/kg wet	0.05						
Toluene	< 0.05		mg/kg wet	0.05						
m,p-Xylene	< 0.1		mg/kg wet	0.1						
o-Xylene	< 0.05		mg/kg wet	0.05						
2-Methylpentane	< 0.05		mg/kg wet	0.05						
n-Nonane	< 0.1		mg/kg wet	0.1						
n-Pentane	< 0.1		mg/kg wet	0.1						
1,2,4-Trimethylbenzene	< 0.05		mg/kg wet	0.05						
2,2,4-Trimethylpentane	< 0.05		mg/kg wet	0.05						
n-Butylcyclohexane	< 0.05		mg/kg wet	0.05						
n-Decane	< 0.05		mg/kg wet	0.05						
Surrogate: 2,5-Dibromotoluene (FID)	*39.2*		mg/kg wet		*50.0*		*78*	*70-130*		
Surrogate: 2,5-Dibromotoluene (PID)	*36.2*		mg/kg wet		*50.0*		*72*	*70-130*		
LCS (1204348-BS1)						Prepared & Analyzed: 28-Feb-12				
C5-C8 Aliphatic Hydrocarbons	**66.7**		mg/kg wet		60.0		111	70-130		
C9-C12 Aliphatic Hydrocarbons	**56.9**		mg/kg wet		60.0		95	70-130		
C9-C10 Aromatic Hydrocarbons	**17.2**		mg/kg wet		20.0		86	70-130		
Unadjusted C5-C8 Aliphatic Hydrocarbons	**196**		mg/kg wet		200		98	70-130		
Unadjusted C9-C12 Aliphatic Hydrocarbons	**74.2**		mg/kg wet		80.0		93	70-130		
Benzene	**19.8**		mg/kg wet		20.0		99	70-130		
Ethylbenzene	**17.7**		mg/kg wet		20.0		88	70-130		
Methyl tert-butyl ether	**20.1**		mg/kg wet		20.0		100	70-130		
Naphthalene	**17.1**		mg/kg wet		20.0		86	70-130		
Toluene	**19.0**		mg/kg wet		20.0		95	70-130		
m,p-Xylene	**35.3**		mg/kg wet		40.0		88	70-130		
o-Xylene	**17.8**		mg/kg wet		20.0		89	70-130		
2-Methylpentane	**20.9**		mg/kg wet		20.0		104	70-130		
n-Nonane	**18.2**		mg/kg wet		20.0		91	70-130		
n-Pentane	**19.6**		mg/kg wet		20.0		98	70-130		
1,2,4-Trimethylbenzene	**17.1**		mg/kg wet		20.0		85	70-130		
2,2,4-Trimethylpentane	**20.1**		mg/kg wet		20.0		100	70-130		
n-Butylcyclohexane	**17.6**		mg/kg wet		20.0		88	70-130		
n-Decane	**14.9**		mg/kg wet		20.0		74	70-130		
Surrogate: 2,5-Dibromotoluene (FID)	*49.4*		mg/kg wet		*50.0*		*99*	*70-130*		
Surrogate: 2,5-Dibromotoluene (PID)	*43.1*		mg/kg wet		*50.0*		*86*	*70-130*		
LCS Dup (1204348-BSD1)						Prepared & Analyzed: 28-Feb-12				
C5-C8 Aliphatic Hydrocarbons	**61.8**		mg/kg wet		60.0		103	70-130	8	25
C9-C12 Aliphatic Hydrocarbons	**60.4**		mg/kg wet		60.0		101	70-130	6	25
C9-C10 Aromatic Hydrocarbons	**17.7**		mg/kg wet		20.0		89	70-130	3	25
Unadjusted C5-C8 Aliphatic Hydrocarbons	**192**		mg/kg wet		200		96	70-130	2	25
Unadjusted C9-C12 Aliphatic Hydrocarbons	**78.1**		mg/kg wet		80.0		98	70-130	5	25

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1204348 - VPH - EPA 5030B										
LCS Dup (1204348-BSD1)					Prepared & Analyzed: 28-Feb-12					
Benzene	**18.6**		mg/kg wet		20.0		93	70-130	6	25
Ethylbenzene	**18.1**		mg/kg wet		20.0		91	70-130	2	25
Methyl tert-butyl ether	**19.2**		mg/kg wet		20.0		96	70-130	5	25
Naphthalene	**19.2**		mg/kg wet		20.0		96	70-130	11	25
Toluene	**19.1**		mg/kg wet		20.0		95	70-130	0.5	25
m,p-Xylene	**36.4**		mg/kg wet		40.0		91	70-130	3	25
o-Xylene	**18.4**		mg/kg wet		20.0		92	70-130	3	25
2-Methylpentane	**17.6**		mg/kg wet		20.0		88	70-130	17	25
n-Nonane	**18.1**		mg/kg wet		20.0		91	70-130	0.6	25
n-Pentane	**17.0**		mg/kg wet		20.0		85	70-130	15	25
1,2,4-Trimethylbenzene	**18.0**		mg/kg wet		20.0		90	70-130	5	25
2,2,4-Trimethylpentane	**18.2**		mg/kg wet		20.0		91	70-130	10	25
n-Butylcyclohexane	**18.3**		mg/kg wet		20.0		92	70-130	4	25
n-Decane	**16.0**		mg/kg wet		20.0		80	70-130	7	25
Surrogate: 2,5-Dibromotoluene (FID)	*57.1*		mg/kg wet		*50.0*		*114*	*70-130*		
Surrogate: 2,5-Dibromotoluene (PID)	*49.1*		mg/kg wet		*50.0*		*98*	*70-130*		
Batch 1204395 - SW846 5030 Soil (high level)										
Blank (1204395-BLK1)					Prepared & Analyzed: 28-Feb-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 50.0		µg/kg wet	50.0						
Acetone	< 500		µg/kg wet	500						
Acrylonitrile	< 50.0		µg/kg wet	50.0						
Benzene	< 50.0		µg/kg wet	50.0						
Bromobenzene	< 50.0		µg/kg wet	50.0						
Bromochloromethane	< 50.0		µg/kg wet	50.0						
Bromodichloromethane	< 50.0		µg/kg wet	50.0						
Bromoform	< 50.0		µg/kg wet	50.0						
Bromomethane	< 100		µg/kg wet	100						
2-Butanone (MEK)	< 500		µg/kg wet	500						
n-Butylbenzene	< 50.0		µg/kg wet	50.0						
sec-Butylbenzene	< 50.0		µg/kg wet	50.0						
tert-Butylbenzene	< 50.0		µg/kg wet	50.0						
Carbon disulfide	< 100		µg/kg wet	100						
Carbon tetrachloride	< 50.0		µg/kg wet	50.0						
Chlorobenzene	< 50.0		µg/kg wet	50.0						
Chloroethane	< 100		µg/kg wet	100						
Chloroform	< 50.0		µg/kg wet	50.0						
Chloromethane	< 100		µg/kg wet	100						
2-Chlorotoluene	< 50.0		µg/kg wet	50.0						
4-Chlorotoluene	< 50.0		µg/kg wet	50.0						
1,2-Dibromo-3-chloropropane	< 100		µg/kg wet	100						
Dibromochloromethane	< 50.0		µg/kg wet	50.0						
1,2-Dibromoethane (EDB)	< 50.0		µg/kg wet	50.0						
Dibromomethane	< 50.0		µg/kg wet	50.0						
1,2-Dichlorobenzene	< 50.0		µg/kg wet	50.0						
1,3-Dichlorobenzene	< 50.0		µg/kg wet	50.0						
1,4-Dichlorobenzene	< 50.0		µg/kg wet	50.0						
Dichlorodifluoromethane (Freon12)	< 100		µg/kg wet	100						
1,1-Dichloroethane	< 50.0		µg/kg wet	50.0						
1,2-Dichloroethane	< 50.0		µg/kg wet	50.0						
1,1-Dichloroethene	< 50.0		µg/kg wet	50.0						
cis-1,2-Dichloroethene	< 50.0		µg/kg wet	50.0						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1204395 - SW846 5030 Soil (high level)										
Blank (1204395-BLK1)					Prepared & Analyzed: 28-Feb-12					
trans-1,2-Dichloroethene	< 50.0		µg/kg wet	50.0						
1,2-Dichloropropane	< 50.0		µg/kg wet	50.0						
1,3-Dichloropropane	< 50.0		µg/kg wet	50.0						
2,2-Dichloropropane	< 50.0		µg/kg wet	50.0						
1,1-Dichloropropene	< 50.0		µg/kg wet	50.0						
cis-1,3-Dichloropropene	< 50.0		µg/kg wet	50.0						
trans-1,3-Dichloropropene	< 50.0		µg/kg wet	50.0						
Ethylbenzene	< 50.0		µg/kg wet	50.0						
Hexachlorobutadiene	< 50.0		µg/kg wet	50.0						
2-Hexanone (MBK)	< 500		µg/kg wet	500						
Isopropylbenzene	< 50.0		µg/kg wet	50.0						
4-Isopropyltoluene	< 50.0		µg/kg wet	50.0						
Methyl tert-butyl ether	< 50.0		µg/kg wet	50.0						
4-Methyl-2-pentanone (MIBK)	< 500		µg/kg wet	500						
Methylene chloride	< 100		µg/kg wet	100						
Naphthalene	< 50.0		µg/kg wet	50.0						
n-Propylbenzene	< 50.0		µg/kg wet	50.0						
Styrene	< 50.0		µg/kg wet	50.0						
1,1,1,2-Tetrachloroethane	< 50.0		µg/kg wet	50.0						
1,1,2,2-Tetrachloroethane	< 50.0		µg/kg wet	50.0						
Tetrachloroethene	< 50.0		µg/kg wet	50.0						
Toluene	< 50.0		µg/kg wet	50.0						
1,2,3-Trichlorobenzene	< 50.0		µg/kg wet	50.0						
1,2,4-Trichlorobenzene	< 50.0		µg/kg wet	50.0						
1,3,5-Trichlorobenzene	< 50.0		µg/kg wet	50.0						
1,1,1-Trichloroethane	< 50.0		µg/kg wet	50.0						
1,1,2-Trichloroethane	< 50.0		µg/kg wet	50.0						
Trichloroethene	< 50.0		µg/kg wet	50.0						
Trichlorofluoromethane (Freon 11)	< 50.0		µg/kg wet	50.0						
1,2,3-Trichloropropane	< 50.0		µg/kg wet	50.0						
1,2,4-Trimethylbenzene	< 50.0		µg/kg wet	50.0						
1,3,5-Trimethylbenzene	< 50.0		µg/kg wet	50.0						
Vinyl chloride	< 50.0		µg/kg wet	50.0						
m,p-Xylene	< 100		µg/kg wet	100						
o-Xylene	< 50.0		µg/kg wet	50.0						
Tetrahydrofuran	< 100		µg/kg wet	100						
Ethyl ether	< 50.0		µg/kg wet	50.0						
Tert-amyl methyl ether	< 50.0		µg/kg wet	50.0						
Ethyl tert-butyl ether	< 50.0		µg/kg wet	50.0						
Di-isopropyl ether	< 50.0		µg/kg wet	50.0						
Tert-Butanol / butyl alcohol	< 500		µg/kg wet	500						
1,4-Dioxane	< 1000		µg/kg wet	1000						
trans-1,4-Dichloro-2-butene	< 250		µg/kg wet	250						
Ethanol	< 20000		µg/kg wet	20000						
Surrogate: 4-Bromofluorobenzene	*29.0*		µg/kg wet		*30.0*		*97*	*70-130*		
Surrogate: Toluene-d8	*29.7*		µg/kg wet		*30.0*		*99*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*35.8*		µg/kg wet		*30.0*		*119*	*70-130*		
Surrogate: Dibromofluoromethane	*33.0*		µg/kg wet		*30.0*		*110*	*70-130*		
LCS (1204395-BS1)					Prepared & Analyzed: 28-Feb-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**21.2**		µg/kg wet		20.0		106	70-130		
Acetone	**19.5**		µg/kg wet		20.0		98	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1204395 - SW846 5030 Soil (high level)										
LCS (1204395-BS1)						Prepared & Analyzed: 28-Feb-12				
Acrylonitrile	**20.3**		µg/kg wet		20.0		102	70-130		
Benzene	**19.6**		µg/kg wet		20.0		98	70-130		
Bromobenzene	**20.5**		µg/kg wet		20.0		103	70-130		
Bromochloromethane	**21.9**		µg/kg wet		20.0		110	70-130		
Bromodichloromethane	**22.2**		µg/kg wet		20.0		111	70-130		
Bromoform	**19.3**		µg/kg wet		20.0		97	70-130		
Bromomethane	**20.5**		µg/kg wet		20.0		103	70-130		
2-Butanone (MEK)	**19.7**		µg/kg wet		20.0		98	70-130		
n-Butylbenzene	**20.6**		µg/kg wet		20.0		103	70-130		
sec-Butylbenzene	**20.5**		µg/kg wet		20.0		102	70-130		
tert-Butylbenzene	**20.6**		µg/kg wet		20.0		103	70-130		
Carbon disulfide	**21.6**		µg/kg wet		20.0		108	70-130		
Carbon tetrachloride	**21.5**		µg/kg wet		20.0		108	70-130		
Chlorobenzene	**19.2**		µg/kg wet		20.0		96	70-130		
Chloroethane	**21.8**		µg/kg wet		20.0		109	70-130		
Chloroform	**21.1**		µg/kg wet		20.0		106	70-130		
Chloromethane	**19.9**		µg/kg wet		20.0		100	70-130		
2-Chlorotoluene	**21.0**		µg/kg wet		20.0		105	70-130		
4-Chlorotoluene	**20.4**		µg/kg wet		20.0		102	70-130		
1,2-Dibromo-3-chloropropane	**19.2**		µg/kg wet		20.0		96	70-130		
Dibromochloromethane	**21.4**		µg/kg wet		20.0		107	70-130		
1,2-Dibromoethane (EDB)	**21.0**		µg/kg wet		20.0		105	70-130		
Dibromomethane	**21.6**		µg/kg wet		20.0		108	70-130		
1,2-Dichlorobenzene	**20.0**		µg/kg wet		20.0		100	70-130		
1,3-Dichlorobenzene	**20.1**		µg/kg wet		20.0		100	70-130		
1,4-Dichlorobenzene	**19.7**		µg/kg wet		20.0		98	70-130		
Dichlorodifluoromethane (Freon12)	**19.9**		µg/kg wet		20.0		100	70-130		
1,1-Dichloroethane	**21.4**		µg/kg wet		20.0		107	70-130		
1,2-Dichloroethane	**22.4**		µg/kg wet		20.0		112	70-130		
1,1-Dichloroethene	**21.5**		µg/kg wet		20.0		107	70-130		
cis-1,2-Dichloroethene	**21.5**		µg/kg wet		20.0		107	70-130		
trans-1,2-Dichloroethene	**21.6**		µg/kg wet		20.0		108	70-130		
1,2-Dichloropropane	**19.9**		µg/kg wet		20.0		100	70-130		
1,3-Dichloropropane	**19.7**		µg/kg wet		20.0		98	70-130		
2,2-Dichloropropane	**20.4**		µg/kg wet		20.0		102	70-130		
1,1-Dichloropropene	**20.3**		µg/kg wet		20.0		102	70-130		
cis-1,3-Dichloropropene	**20.2**		µg/kg wet		20.0		101	70-130		
trans-1,3-Dichloropropene	**20.3**		µg/kg wet		20.0		101	70-130		
Ethylbenzene	**19.8**		µg/kg wet		20.0		99	70-130		
Hexachlorobutadiene	**20.1**		µg/kg wet		20.0		100	70-130		
2-Hexanone (MBK)	**16.9**		µg/kg wet		20.0		85	70-130		
Isopropylbenzene	**20.3**		µg/kg wet		20.0		102	70-130		
4-Isopropyltoluene	**20.7**		µg/kg wet		20.0		103	70-130		
Methyl tert-butyl ether	**20.8**		µg/kg wet		20.0		104	70-130		
4-Methyl-2-pentanone (MIBK)	**16.2**		µg/kg wet		20.0		81	70-130		
Methylene chloride	**21.6**		µg/kg wet		20.0		108	70-130		
Naphthalene	**18.5**		µg/kg wet		20.0		93	70-130		
n-Propylbenzene	**20.4**		µg/kg wet		20.0		102	70-130		
Styrene	**20.0**		µg/kg wet		20.0		100	70-130		
1,1,1,2-Tetrachloroethane	**18.8**		µg/kg wet		20.0		94	70-130		
1,1,2,2-Tetrachloroethane	**20.2**		µg/kg wet		20.0		101	70-130		
Tetrachloroethene	**19.3**		µg/kg wet		20.0		96	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1204395 - SW846 5030 Soil (high level)										
LCS (1204395-BS1)					Prepared & Analyzed: 28-Feb-12					
Toluene	**19.5**		µg/kg wet		20.0		97	70-130		
1,2,3-Trichlorobenzene	**20.3**		µg/kg wet		20.0		101	70-130		
1,2,4-Trichlorobenzene	**19.8**		µg/kg wet		20.0		99	70-130		
1,3,5-Trichlorobenzene	**20.1**		µg/kg wet		20.0		100	70-130		
1,1,1-Trichloroethane	**23.2**		µg/kg wet		20.0		116	70-130		
1,1,2-Trichloroethane	**20.0**		µg/kg wet		20.0		100	70-130		
Trichloroethene	**19.2**		µg/kg wet		20.0		96	70-130		
Trichlorofluoromethane (Freon 11)	**23.0**		µg/kg wet		20.0		115	70-130		
1,2,3-Trichloropropane	**19.3**		µg/kg wet		20.0		96	70-130		
1,2,4-Trimethylbenzene	**20.2**		µg/kg wet		20.0		101	70-130		
1,3,5-Trimethylbenzene	**20.9**		µg/kg wet		20.0		105	70-130		
Vinyl chloride	**24.8**		µg/kg wet		20.0		124	70-130		
m,p-Xylene	**39.5**		µg/kg wet		40.0		99	70-130		
o-Xylene	**20.3**		µg/kg wet		20.0		102	70-130		
Tetrahydrofuran	**21.2**		µg/kg wet		20.0		106	70-130		
Ethyl ether	**21.2**		µg/kg wet		20.0		106	70-130		
Tert-amyl methyl ether	**18.7**		µg/kg wet		20.0		93	70-130		
Ethyl tert-butyl ether	**20.4**		µg/kg wet		20.0		102	70-130		
Di-isopropyl ether	**20.4**		µg/kg wet		20.0		102	70-130		
Tert-Butanol / butyl alcohol	**199**		µg/kg wet		200		99	70-130		
1,4-Dioxane	**191**		µg/kg wet		200		96	70-130		
trans-1,4-Dichloro-2-butene	**17.4**		µg/kg wet		20.0		87	70-130		
Ethanol	**414**		µg/kg wet		400		103	70-130		
Surrogate: 4-Bromofluorobenzene	*29.8*		µg/kg wet		*30.0*		*99*	*70-130*		
Surrogate: Toluene-d8	*29.2*		µg/kg wet		*30.0*		*97*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*31.5*		µg/kg wet		*30.0*		*105*	*70-130*		
Surrogate: Dibromofluoromethane	*33.7*		µg/kg wet		*30.0*		*112*	*70-130*		
LCS Dup (1204395-BSD1)					Prepared & Analyzed: 28-Feb-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**22.1**		µg/kg wet		20.0		110	70-130	4	25
Acetone	**19.8**		µg/kg wet		20.0		99	70-130	1	50
Acrylonitrile	**19.5**		µg/kg wet		20.0		97	70-130	4	25
Benzene	**19.7**		µg/kg wet		20.0		99	70-130	0.4	25
Bromobenzene	**20.1**		µg/kg wet		20.0		100	70-130	2	25
Bromochloromethane	**22.2**		µg/kg wet		20.0		111	70-130	1	25
Bromodichloromethane	**22.5**		µg/kg wet		20.0		112	70-130	1	25
Bromoform	**19.3**		µg/kg wet		20.0		97	70-130	0.1	25
Bromomethane	**20.8**		µg/kg wet		20.0		104	70-130	1	50
2-Butanone (MEK)	**19.1**		µg/kg wet		20.0		95	70-130	3	50
n-Butylbenzene	**20.8**		µg/kg wet		20.0		104	70-130	1	25
sec-Butylbenzene	**20.6**		µg/kg wet		20.0		103	70-130	0.8	25
tert-Butylbenzene	**20.5**		µg/kg wet		20.0		102	70-130	0.5	25
Carbon disulfide	**22.4**		µg/kg wet		20.0		112	70-130	4	25
Carbon tetrachloride	**23.1**		µg/kg wet		20.0		116	70-130	7	25
Chlorobenzene	**19.4**		µg/kg wet		20.0		97	70-130	0.9	25
Chloroethane	**21.5**		µg/kg wet		20.0		108	70-130	1	50
Chloroform	**21.3**		µg/kg wet		20.0		107	70-130	1	25
Chloromethane	**20.6**		µg/kg wet		20.0		103	70-130	3	25
2-Chlorotoluene	**20.6**		µg/kg wet		20.0		103	70-130	2	25
4-Chlorotoluene	**20.9**		µg/kg wet		20.0		105	70-130	2	25
1,2-Dibromo-3-chloropropane	**18.8**		µg/kg wet		20.0		94	70-130	2	25
Dibromochloromethane	**21.8**		µg/kg wet		20.0		109	70-130	2	50

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1204395 - SW846 5030 Soil (high level)										
LCS Dup (1204395-BSD1)					Prepared & Analyzed: 28-Feb-12					
1,2-Dibromoethane (EDB)	**20.8**		µg/kg wet		20.0		104	70-130	0.6	25
Dibromomethane	**21.2**		µg/kg wet		20.0		106	70-130	2	25
1,2-Dichlorobenzene	**20.3**		µg/kg wet		20.0		102	70-130	2	25
1,3-Dichlorobenzene	**20.2**		µg/kg wet		20.0		101	70-130	0.4	25
1,4-Dichlorobenzene	**19.9**		µg/kg wet		20.0		100	70-130	1	25
Dichlorodifluoromethane (Freon12)	**21.2**		µg/kg wet		20.0		106	70-130	6	50
1,1-Dichloroethane	**21.6**		µg/kg wet		20.0		108	70-130	0.8	25
1,2-Dichloroethane	**22.5**		µg/kg wet		20.0		113	70-130	0.6	25
1,1-Dichloroethene	**21.5**		µg/kg wet		20.0		108	70-130	0.2	25
cis-1,2-Dichloroethene	**21.7**		µg/kg wet		20.0		108	70-130	0.8	25
trans-1,2-Dichloroethene	**22.0**		µg/kg wet		20.0		110	70-130	2	25
1,2-Dichloropropane	**20.0**		µg/kg wet		20.0		100	70-130	0.3	25
1,3-Dichloropropane	**19.6**		µg/kg wet		20.0		98	70-130	0.4	25
2,2-Dichloropropane	**21.3**		µg/kg wet		20.0		107	70-130	4	25
1,1-Dichloropropene	**20.3**		µg/kg wet		20.0		102	70-130	0.05	25
cis-1,3-Dichloropropene	**20.8**		µg/kg wet		20.0		104	70-130	3	25
trans-1,3-Dichloropropene	**20.5**		µg/kg wet		20.0		102	70-130	1	25
Ethylbenzene	**19.9**		µg/kg wet		20.0		99	70-130	0.4	25
Hexachlorobutadiene	**21.6**		µg/kg wet		20.0		108	70-130	7	50
2-Hexanone (MBK)	**15.8**		µg/kg wet		20.0		79	70-130	7	25
Isopropylbenzene	**20.0**		µg/kg wet		20.0		100	70-130	1	25
4-Isopropyltoluene	**20.6**		µg/kg wet		20.0		103	70-130	0.3	25
Methyl tert-butyl ether	**20.1**		µg/kg wet		20.0		101	70-130	4	25
4-Methyl-2-pentanone (MIBK)	**16.6**		µg/kg wet		20.0		83	70-130	3	50
Methylene chloride	**22.0**		µg/kg wet		20.0		110	70-130	2	25
Naphthalene	**18.1**		µg/kg wet		20.0		90	70-130	2	25
n-Propylbenzene	**20.0**		µg/kg wet		20.0		100	70-130	2	25
Styrene	**20.1**		µg/kg wet		20.0		100	70-130	0.6	25
1,1,1,2-Tetrachloroethane	**19.1**		µg/kg wet		20.0		95	70-130	1	25
1,1,2,2-Tetrachloroethane	**19.6**		µg/kg wet		20.0		98	70-130	3	25
Tetrachloroethene	**19.5**		µg/kg wet		20.0		97	70-130	1	25
Toluene	**19.3**		µg/kg wet		20.0		97	70-130	0.7	25
1,2,3-Trichlorobenzene	**20.6**		µg/kg wet		20.0		103	70-130	2	25
1,2,4-Trichlorobenzene	**20.2**		µg/kg wet		20.0		101	70-130	2	25
1,3,5-Trichlorobenzene	**20.6**		µg/kg wet		20.0		103	70-130	3	25
1,1,1-Trichloroethane	**24.8**		µg/kg wet		20.0		124	70-130	7	25
1,1,2-Trichloroethane	**19.8**		µg/kg wet		20.0		99	70-130	1	25
Trichloroethene	**19.7**		µg/kg wet		20.0		98	70-130	2	25
Trichlorofluoromethane (Freon 11)	**23.5**		µg/kg wet		20.0		117	70-130	2	50
1,2,3-Trichloropropane	**18.8**		µg/kg wet		20.0		94	70-130	3	25
1,2,4-Trimethylbenzene	**20.1**		µg/kg wet		20.0		101	70-130	0.1	25
1,3,5-Trimethylbenzene	**21.0**		µg/kg wet		20.0		105	70-130	0.7	25
Vinyl chloride	**24.0**		µg/kg wet		20.0		120	70-130	3	25
m,p-Xylene	**39.6**		µg/kg wet		40.0		99	70-130	0.2	25
o-Xylene	**20.6**		µg/kg wet		20.0		103	70-130	1	25
Tetrahydrofuran	**20.8**		µg/kg wet		20.0		104	70-130	1	25
Ethyl ether	**20.4**		µg/kg wet		20.0		102	70-130	4	50
Tert-amyl methyl ether	**18.2**		µg/kg wet		20.0		91	70-130	2	25
Ethyl tert-butyl ether	**20.3**		µg/kg wet		20.0		102	70-130	0.6	25
Di-isopropyl ether	**20.2**		µg/kg wet		20.0		101	70-130	0.5	25
Tert-Butanol / butyl alcohol	**192**		µg/kg wet		200		96	70-130	4	25
1,4-Dioxane	**160**		µg/kg wet		200		80	70-130	18	25

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1204395 - SW846 5030 Soil (high level)										
LCS Dup (1204395-BSD1)					Prepared & Analyzed: 28-Feb-12					
trans-1,4-Dichloro-2-butene	**16.6**		µg/kg wet		20.0		83	70-130	5	25
Ethanol	**386**		µg/kg wet		400		96	70-130	7	30
Surrogate: 4-Bromofluorobenzene	*29.6*		µg/kg wet		*30.0*		*99*	*70-130*		
Surrogate: Toluene-d8	*29.8*		µg/kg wet		*30.0*		*99*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*34.5*		µg/kg wet		*30.0*		*115*	*70-130*		
Surrogate: Dibromofluoromethane	*34.3*		µg/kg wet		*30.0*		*114*	*70-130*		
Batch 1204484 - SW846 5030 Soil (high level)										
Blank (1204484-BLK1)					Prepared & Analyzed: 29-Feb-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 50.0		µg/kg wet	50.0						
Acetone	< 500		µg/kg wet	500						
Acrylonitrile	< 50.0		µg/kg wet	50.0						
Benzene	< 50.0		µg/kg wet	50.0						
Bromobenzene	< 50.0		µg/kg wet	50.0						
Bromochloromethane	< 50.0		µg/kg wet	50.0						
Bromodichloromethane	< 50.0		µg/kg wet	50.0						
Bromoform	< 50.0		µg/kg wet	50.0						
Bromomethane	< 100		µg/kg wet	100						
2-Butanone (MEK)	< 500		µg/kg wet	500						
n-Butylbenzene	< 50.0		µg/kg wet	50.0						
sec-Butylbenzene	< 50.0		µg/kg wet	50.0						
tert-Butylbenzene	< 50.0		µg/kg wet	50.0						
Carbon disulfide	< 100		µg/kg wet	100						
Carbon tetrachloride	< 50.0		µg/kg wet	50.0						
Chlorobenzene	< 50.0		µg/kg wet	50.0						
Chloroethane	< 100		µg/kg wet	100						
Chloroform	< 50.0		µg/kg wet	50.0						
Chloromethane	< 100		µg/kg wet	100						
2-Chlorotoluene	< 50.0		µg/kg wet	50.0						
4-Chlorotoluene	< 50.0		µg/kg wet	50.0						
1,2-Dibromo-3-chloropropane	< 100		µg/kg wet	100						
Dibromochloromethane	< 50.0		µg/kg wet	50.0						
1,2-Dibromoethane (EDB)	< 50.0		µg/kg wet	50.0						
Dibromomethane	< 50.0		µg/kg wet	50.0						
1,2-Dichlorobenzene	< 50.0		µg/kg wet	50.0						
1,3-Dichlorobenzene	< 50.0		µg/kg wet	50.0						
1,4-Dichlorobenzene	< 50.0		µg/kg wet	50.0						
Dichlorodifluoromethane (Freon12)	< 100		µg/kg wet	100						
1,1-Dichloroethane	< 50.0		µg/kg wet	50.0						
1,2-Dichloroethane	< 50.0		µg/kg wet	50.0						
1,1-Dichloroethene	< 50.0		µg/kg wet	50.0						
cis-1,2-Dichloroethene	< 50.0		µg/kg wet	50.0						
trans-1,2-Dichloroethene	< 50.0		µg/kg wet	50.0						
1,2-Dichloropropane	< 50.0		µg/kg wet	50.0						
1,3-Dichloropropane	< 50.0		µg/kg wet	50.0						
2,2-Dichloropropane	< 50.0		µg/kg wet	50.0						
1,1-Dichloropropene	< 50.0		µg/kg wet	50.0						
cis-1,3-Dichloropropene	< 50.0		µg/kg wet	50.0						
trans-1,3-Dichloropropene	< 50.0		µg/kg wet	50.0						
Ethylbenzene	< 50.0		µg/kg wet	50.0						
Hexachlorobutadiene	< 50.0		µg/kg wet	50.0						
2-Hexanone (MBK)	< 500		µg/kg wet	500						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1204484 - SW846 5030 Soil (high level)										
Blank (1204484-BLK1)					Prepared & Analyzed: 29-Feb-12					
Isopropylbenzene	< 50.0		µg/kg wet	50.0						
4-Isopropyltoluene	< 50.0		µg/kg wet	50.0						
Methyl tert-butyl ether	< 50.0		µg/kg wet	50.0						
4-Methyl-2-pentanone (MIBK)	< 500		µg/kg wet	500						
Methylene chloride	< 100		µg/kg wet	100						
Naphthalene	< 50.0		µg/kg wet	50.0						
n-Propylbenzene	< 50.0		µg/kg wet	50.0						
Styrene	< 50.0		µg/kg wet	50.0						
1,1,1,2-Tetrachloroethane	< 50.0		µg/kg wet	50.0						
1,1,2,2-Tetrachloroethane	< 50.0		µg/kg wet	50.0						
Tetrachloroethene	< 50.0		µg/kg wet	50.0						
Toluene	< 50.0		µg/kg wet	50.0						
1,2,3-Trichlorobenzene	< 50.0		µg/kg wet	50.0						
1,2,4-Trichlorobenzene	< 50.0		µg/kg wet	50.0						
1,3,5-Trichlorobenzene	< 50.0		µg/kg wet	50.0						
1,1,1-Trichloroethane	< 50.0		µg/kg wet	50.0						
1,1,2-Trichloroethane	< 50.0		µg/kg wet	50.0						
Trichloroethene	< 50.0		µg/kg wet	50.0						
Trichlorofluoromethane (Freon 11)	< 50.0		µg/kg wet	50.0						
1,2,3-Trichloropropane	< 50.0		µg/kg wet	50.0						
1,2,4-Trimethylbenzene	< 50.0		µg/kg wet	50.0						
1,3,5-Trimethylbenzene	< 50.0		µg/kg wet	50.0						
Vinyl chloride	< 50.0		µg/kg wet	50.0						
m,p-Xylene	< 100		µg/kg wet	100						
o-Xylene	< 50.0		µg/kg wet	50.0						
Tetrahydrofuran	< 100		µg/kg wet	100						
Ethyl ether	< 50.0		µg/kg wet	50.0						
Tert-amyl methyl ether	< 50.0		µg/kg wet	50.0						
Ethyl tert-butyl ether	< 50.0		µg/kg wet	50.0						
Di-isopropyl ether	< 50.0		µg/kg wet	50.0						
Tert-Butanol / butyl alcohol	< 500		µg/kg wet	500						
1,4-Dioxane	< 1000		µg/kg wet	1000						
trans-1,4-Dichloro-2-butene	< 250		µg/kg wet	250						
Ethanol	< 20000		µg/kg wet	20000						
Surrogate: 4-Bromofluorobenzene	*29.2*		µg/kg wet		*30.0*		*98*	*70-130*		
Surrogate: Toluene-d8	*29.2*		µg/kg wet		*30.0*		*97*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*32.3*		µg/kg wet		*30.0*		*108*	*70-130*		
Surrogate: Dibromofluoromethane	*32.6*		µg/kg wet		*30.0*		*108*	*70-130*		
LCS (1204484-BS1)					Prepared & Analyzed: 29-Feb-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**23.6**		µg/kg wet		20.0		118	70-130		
Acetone	**18.3**		µg/kg wet		20.0		91	70-130		
Acrylonitrile	**18.5**		µg/kg wet		20.0		92	70-130		
Benzene	**20.4**		µg/kg wet		20.0		102	70-130		
Bromobenzene	**20.5**		µg/kg wet		20.0		103	70-130		
Bromochloromethane	**21.3**		µg/kg wet		20.0		106	70-130		
Bromodichloromethane	**21.9**		µg/kg wet		20.0		110	70-130		
Bromoform	**18.0**		µg/kg wet		20.0		90	70-130		
Bromomethane	**22.6**		µg/kg wet		20.0		113	70-130		
2-Butanone (MEK)	**19.7**		µg/kg wet		20.0		99	70-130		
n-Butylbenzene	**21.8**		µg/kg wet		20.0		109	70-130		
sec-Butylbenzene	**21.6**		µg/kg wet		20.0		108	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1204484 - SW846 5030 Soil (high level)										
LCS (1204484-BS1)					Prepared & Analyzed: 29-Feb-12					
tert-Butylbenzene	**22.0**		µg/kg wet		20.0		110	70-130		
Carbon disulfide	**23.5**		µg/kg wet		20.0		118	70-130		
Carbon tetrachloride	**22.6**		µg/kg wet		20.0		113	70-130		
Chlorobenzene	**19.7**		µg/kg wet		20.0		98	70-130		
Chloroethane	**22.9**		µg/kg wet		20.0		114	70-130		
Chloroform	**21.8**		µg/kg wet		20.0		109	70-130		
Chloromethane	**21.7**		µg/kg wet		20.0		108	70-130		
2-Chlorotoluene	**21.3**		µg/kg wet		20.0		107	70-130		
4-Chlorotoluene	**21.6**		µg/kg wet		20.0		108	70-130		
1,2-Dibromo-3-chloropropane	**17.4**		µg/kg wet		20.0		87	70-130		
Dibromochloromethane	**21.0**		µg/kg wet		20.0		105	70-130		
1,2-Dibromoethane (EDB)	**19.8**		µg/kg wet		20.0		99	70-130		
Dibromomethane	**20.5**		µg/kg wet		20.0		103	70-130		
1,2-Dichlorobenzene	**20.3**		µg/kg wet		20.0		102	70-130		
1,3-Dichlorobenzene	**20.7**		µg/kg wet		20.0		104	70-130		
1,4-Dichlorobenzene	**20.2**		µg/kg wet		20.0		101	70-130		
Dichlorodifluoromethane (Freon12)	**23.3**		µg/kg wet		20.0		116	70-130		
1,1-Dichloroethane	**22.5**		µg/kg wet		20.0		112	70-130		
1,2-Dichloroethane	**20.2**		µg/kg wet		20.0		101	70-130		
1,1-Dichloroethene	**23.2**		µg/kg wet		20.0		116	70-130		
cis-1,2-Dichloroethene	**22.4**		µg/kg wet		20.0		112	70-130		
trans-1,2-Dichloroethene	**23.2**		µg/kg wet		20.0		116	70-130		
1,2-Dichloropropane	**20.1**		µg/kg wet		20.0		100	70-130		
1,3-Dichloropropane	**19.0**		µg/kg wet		20.0		95	70-130		
2,2-Dichloropropane	**25.8**		µg/kg wet		20.0		129	70-130		
1,1-Dichloropropene	**21.0**		µg/kg wet		20.0		105	70-130		
cis-1,3-Dichloropropene	**20.6**		µg/kg wet		20.0		103	70-130		
trans-1,3-Dichloropropene	**20.2**		µg/kg wet		20.0		101	70-130		
Ethylbenzene	**20.7**		µg/kg wet		20.0		103	70-130		
Hexachlorobutadiene	**23.8**		µg/kg wet		20.0		119	70-130		
2-Hexanone (MBK)	**17.8**		µg/kg wet		20.0		89	70-130		
Isopropylbenzene	**21.3**		µg/kg wet		20.0		107	70-130		
4-Isopropyltoluene	**22.0**		µg/kg wet		20.0		110	70-130		
Methyl tert-butyl ether	**19.7**		µg/kg wet		20.0		98	70-130		
4-Methyl-2-pentanone (MIBK)	**16.7**		µg/kg wet		20.0		83	70-130		
Methylene chloride	**22.1**		µg/kg wet		20.0		110	70-130		
Naphthalene	**17.7**		µg/kg wet		20.0		89	70-130		
n-Propylbenzene	**21.7**		µg/kg wet		20.0		108	70-130		
Styrene	**21.0**		µg/kg wet		20.0		105	70-130		
1,1,1,2-Tetrachloroethane	**19.1**		µg/kg wet		20.0		96	70-130		
1,1,2,2-Tetrachloroethane	**18.8**		µg/kg wet		20.0		94	70-130		
Tetrachloroethene	**20.5**		µg/kg wet		20.0		103	70-130		
Toluene	**19.9**		µg/kg wet		20.0		100	70-130		
1,2,3-Trichlorobenzene	**21.2**		µg/kg wet		20.0		106	70-130		
1,2,4-Trichlorobenzene	**20.3**		µg/kg wet		20.0		102	70-130		
1,3,5-Trichlorobenzene	**20.7**		µg/kg wet		20.0		103	70-130		
1,1,1-Trichloroethane	**22.7**		µg/kg wet		20.0		113	70-130		
1,1,2-Trichloroethane	**19.1**		µg/kg wet		20.0		95	70-130		
Trichloroethene	**20.5**		µg/kg wet		20.0		102	70-130		
Trichlorofluoromethane (Freon 11)	**25.9**		µg/kg wet		20.0		130	70-130		
1,2,3-Trichloropropane	**17.6**		µg/kg wet		20.0		88	70-130		
1,2,4-Trimethylbenzene	**21.0**		µg/kg wet		20.0		105	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1204484 - SW846 5030 Soil (high level)										
LCS (1204484-BS1)					Prepared & Analyzed: 29-Feb-12					
1,3,5-Trimethylbenzene	**21.8**		µg/kg wet		20.0		109	70-130		
Vinyl chloride	**25.2**		µg/kg wet		20.0		126	70-130		
m,p-Xylene	**41.4**		µg/kg wet		40.0		104	70-130		
o-Xylene	**20.8**		µg/kg wet		20.0		104	70-130		
Tetrahydrofuran	**18.1**		µg/kg wet		20.0		90	70-130		
Ethyl ether	**19.8**		µg/kg wet		20.0		99	70-130		
Tert-amyl methyl ether	**17.9**		µg/kg wet		20.0		90	70-130		
Ethyl tert-butyl ether	**20.0**		µg/kg wet		20.0		100	70-130		
Di-isopropyl ether	**20.1**		µg/kg wet		20.0		101	70-130		
Tert-Butanol / butyl alcohol	**174**		µg/kg wet		200		87	70-130		
1,4-Dioxane	**170**		µg/kg wet		200		85	70-130		
trans-1,4-Dichloro-2-butene	**17.4**		µg/kg wet		20.0		87	70-130		
Ethanol	**361**		µg/kg wet		400		90	70-130		
Surrogate: 4-Bromofluorobenzene	*30.0*		µg/kg wet		*30.0*		*100*	*70-130*		
Surrogate: Toluene-d8	*29.4*		µg/kg wet		*30.0*		*98*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*31.1*		µg/kg wet		*30.0*		*104*	*70-130*		
Surrogate: Dibromofluoromethane	*33.4*		µg/kg wet		*30.0*		*111*	*70-130*		
LCS Dup (1204484-BSD1)					Prepared & Analyzed: 29-Feb-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**23.0**		µg/kg wet		20.0		115	70-130	3	25
Acetone	**17.5**		µg/kg wet		20.0		88	70-130	4	50
Acrylonitrile	**19.6**		µg/kg wet		20.0		98	70-130	6	25
Benzene	**20.3**		µg/kg wet		20.0		102	70-130	0.3	25
Bromobenzene	**20.9**		µg/kg wet		20.0		105	70-130	2	25
Bromochloromethane	**22.4**		µg/kg wet		20.0		112	70-130	5	25
Bromodichloromethane	**22.9**		µg/kg wet		20.0		115	70-130	4	25
Bromoform	**18.9**		µg/kg wet		20.0		94	70-130	5	25
Bromomethane	**22.4**		µg/kg wet		20.0		112	70-130	0.5	50
2-Butanone (MEK)	**18.8**		µg/kg wet		20.0		94	70-130	5	50
n-Butylbenzene	**21.0**		µg/kg wet		20.0		105	70-130	4	25
sec-Butylbenzene	**21.6**		µg/kg wet		20.0		108	70-130	0.4	25
tert-Butylbenzene	**21.5**		µg/kg wet		20.0		108	70-130	2	25
Carbon disulfide	**23.8**		µg/kg wet		20.0		119	70-130	1	25
Carbon tetrachloride	**23.9**		µg/kg wet		20.0		120	70-130	6	25
Chlorobenzene	**19.7**		µg/kg wet		20.0		98	70-130	0	25
Chloroethane	**22.6**		µg/kg wet		20.0		113	70-130	1	50
Chloroform	**22.7**		µg/kg wet		20.0		114	70-130	4	25
Chloromethane	**21.6**		µg/kg wet		20.0		108	70-130	0.6	25
2-Chlorotoluene	**21.4**		µg/kg wet		20.0		107	70-130	0.4	25
4-Chlorotoluene	**21.2**		µg/kg wet		20.0		106	70-130	2	25
1,2-Dibromo-3-chloropropane	**18.0**		µg/kg wet		20.0		90	70-130	3	25
Dibromochloromethane	**21.7**		µg/kg wet		20.0		109	70-130	3	50
1,2-Dibromoethane (EDB)	**21.0**		µg/kg wet		20.0		105	70-130	6	25
Dibromomethane	**21.6**		µg/kg wet		20.0		108	70-130	5	25
1,2-Dichlorobenzene	**20.2**		µg/kg wet		20.0		101	70-130	0.6	25
1,3-Dichlorobenzene	**20.6**		µg/kg wet		20.0		103	70-130	0.7	25
1,4-Dichlorobenzene	**20.1**		µg/kg wet		20.0		101	70-130	0.4	25
Dichlorodifluoromethane (Freon12)	**22.3**		µg/kg wet		20.0		112	70-130	4	50
1,1-Dichloroethane	**22.3**		µg/kg wet		20.0		111	70-130	0.8	25
1,2-Dichloroethane	**23.3**		µg/kg wet		20.0		116	70-130	14	25
1,1-Dichloroethene	**22.7**		µg/kg wet		20.0		113	70-130	3	25
cis-1,2-Dichloroethene	**22.6**		µg/kg wet		20.0		113	70-130	0.9	25

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1204484 - SW846 5030 Soil (high level)										
LCS Dup (1204484-BSD1)					Prepared & Analyzed: 29-Feb-12					
trans-1,2-Dichloroethene	**22.6**		µg/kg wet		20.0		113	70-130	3	25
1,2-Dichloropropane	**20.4**		µg/kg wet		20.0		102	70-130	2	25
1,3-Dichloropropane	**20.4**		µg/kg wet		20.0		102	70-130	7	25
2,2-Dichloropropane	**25.1**		µg/kg wet		20.0		126	70-130	3	25
1,1-Dichloropropene	**21.5**		µg/kg wet		20.0		108	70-130	2	25
cis-1,3-Dichloropropene	**20.8**		µg/kg wet		20.0		104	70-130	0.8	25
trans-1,3-Dichloropropene	**21.5**		µg/kg wet		20.0		108	70-130	6	25
Ethylbenzene	**20.5**		µg/kg wet		20.0		103	70-130	0.7	25
Hexachlorobutadiene	**22.7**		µg/kg wet		20.0		113	70-130	5	50
2-Hexanone (MBK)	**18.0**		µg/kg wet		20.0		90	70-130	0.6	25
Isopropylbenzene	**20.9**		µg/kg wet		20.0		104	70-130	2	25
4-Isopropyltoluene	**21.1**		µg/kg wet		20.0		105	70-130	4	25
Methyl tert-butyl ether	**20.8**		µg/kg wet		20.0		104	70-130	5	25
4-Methyl-2-pentanone (MIBK)	**16.2**		µg/kg wet		20.0		81	70-130	3	50
Methylene chloride	**22.3**		µg/kg wet		20.0		112	70-130	1	25
Naphthalene	**18.0**		µg/kg wet		20.0		90	70-130	2	25
n-Propylbenzene	**21.2**		µg/kg wet		20.0		106	70-130	2	25
Styrene	**20.8**		µg/kg wet		20.0		104	70-130	1	25
1,1,1,2-Tetrachloroethane	**19.0**		µg/kg wet		20.0		95	70-130	0.9	25
1,1,2,2-Tetrachloroethane	**19.6**		µg/kg wet		20.0		98	70-130	4	25
Tetrachloroethene	**20.2**		µg/kg wet		20.0		101	70-130	2	25
Toluene	**20.2**		µg/kg wet		20.0		101	70-130	1	25
1,2,3-Trichlorobenzene	**20.5**		µg/kg wet		20.0		103	70-130	3	25
1,2,4-Trichlorobenzene	**20.6**		µg/kg wet		20.0		103	70-130	1	25
1,3,5-Trichlorobenzene	**20.8**		µg/kg wet		20.0		104	70-130	0.5	25
1,1,1-Trichloroethane	**25.6**		µg/kg wet		20.0		128	70-130	12	25
1,1,2-Trichloroethane	**19.5**		µg/kg wet		20.0		98	70-130	2	25
Trichloroethene	**20.6**		µg/kg wet		20.0		103	70-130	0.4	25
Trichlorofluoromethane (Freon 11)	**25.3**		µg/kg wet		20.0		126	70-130	2	50
1,2,3-Trichloropropane	**18.3**		µg/kg wet		20.0		92	70-130	4	25
1,2,4-Trimethylbenzene	**21.0**		µg/kg wet		20.0		105	70-130	0.3	25
1,3,5-Trimethylbenzene	**21.6**		µg/kg wet		20.0		108	70-130	1	25
Vinyl chloride	**25.8**		µg/kg wet		20.0		129	70-130	2	25
m,p-Xylene	**41.3**		µg/kg wet		40.0		103	70-130	0.3	25
o-Xylene	**20.5**		µg/kg wet		20.0		102	70-130	1	25
Tetrahydrofuran	**19.2**		µg/kg wet		20.0		96	70-130	6	25
Ethyl ether	**21.2**		µg/kg wet		20.0		106	70-130	7	50
Tert-amyl methyl ether	**18.5**		µg/kg wet		20.0		93	70-130	3	25
Ethyl tert-butyl ether	**20.6**		µg/kg wet		20.0		103	70-130	3	25
Di-isopropyl ether	**20.7**		µg/kg wet		20.0		103	70-130	3	25
Tert-Butanol / butyl alcohol	**189**		µg/kg wet		200		94	70-130	8	25
1,4-Dioxane	**183**		µg/kg wet		200		91	70-130	7	25
trans-1,4-Dichloro-2-butene	**18.3**		µg/kg wet		20.0		92	70-130	5	25
Ethanol	**378**		µg/kg wet		400		95	70-130	5	30
Surrogate: 4-Bromofluorobenzene	*29.7*		µg/kg wet		*30.0*		*99*	*70-130*		
Surrogate: Toluene-d8	*30.0*		µg/kg wet		*30.0*		*100*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*34.7*		µg/kg wet		*30.0*		*116*	*70-130*		
Surrogate: Dibromofluoromethane	*34.5*		µg/kg wet		*30.0*		*115*	*70-130*		

Extractable Petroleum Hydrocarbons - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1204235 - SW846 3545A										
Blank (1204235-BLK1)						Prepared & Analyzed: 27-Feb-12				
C9-C18 Aliphatic Hydrocarbons	< 5.00		mg/kg wet	5.00						
C19-C36 Aliphatic Hydrocarbons	< 5.00		mg/kg wet	5.00						
C11-C22 Aromatic Hydrocarbons	< 5.00		mg/kg wet	5.00						
Unadjusted C11-C22 Aromatic Hydrocarbons	< 5.00		mg/kg wet	5.00						
Total Petroleum Hydrocarbons	< 5.00		mg/kg wet	5.00						
Unadjusted Total Petroleum Hydrocarbons	< 5.00		mg/kg wet	5.00						
Naphthalene	< 0.166		mg/kg wet	0.166						
2-Methylnaphthalene	< 0.166		mg/kg wet	0.166						
Acenaphthylene	< 0.166		mg/kg wet	0.166						
Acenaphthene	< 0.166		mg/kg wet	0.166						
Fluorene	< 0.166		mg/kg wet	0.166						
Phenanthrene	< 0.166		mg/kg wet	0.166						
Anthracene	< 0.166		mg/kg wet	0.166						
Fluoranthene	< 0.166		mg/kg wet	0.166						
Pyrene	< 0.166		mg/kg wet	0.166						
Benzo (a) anthracene	< 0.166		mg/kg wet	0.166						
Chrysene	< 0.166		mg/kg wet	0.166						
Benzo (b) fluoranthene	< 0.166		mg/kg wet	0.166						
Benzo (k) fluoranthene	< 0.166		mg/kg wet	0.166						
Benzo (a) pyrene	< 0.166		mg/kg wet	0.166						
Indeno (1,2,3-cd) pyrene	< 0.166		mg/kg wet	0.166						
Dibenzo (a,h) anthracene	< 0.166		mg/kg wet	0.166						
Benzo (g,h,i) perylene	< 0.166		mg/kg wet	0.166						
n-Nonane (C9)	< 0.166		mg/kg wet	0.166						
n-Decane	< 0.166		mg/kg wet	0.166						
n-Dodecane	< 0.166		mg/kg wet	0.166						
n-Tetradecane	< 0.166		mg/kg wet	0.166						
n-Hexadecane	< 0.166		mg/kg wet	0.166						
n-Octadecane	< 0.166		mg/kg wet	0.166						
n-Nonadecane	< 0.166		mg/kg wet	0.166						
n-Eicosane	< 0.166		mg/kg wet	0.166						
n-Docosane	< 0.166		mg/kg wet	0.166						
n-Tetracosane	< 0.166		mg/kg wet	0.166						
n-Hexacosane	< 0.166		mg/kg wet	0.166						
n-Octacosane	< 0.166		mg/kg wet	0.166						
n-Triacontane	< 0.166		mg/kg wet	0.166						
n-Hexatriacontane	< 0.166		mg/kg wet	0.166						
Naphthalene (aliphatic fraction)	**0.00**		mg/kg wet							
2-Methylnaphthalene (aliphatic fraction)	**0.00**		mg/kg wet							
Surrogate: 1-Chlorooctadecane	*3.23*		mg/kg wet		*3.33*		*97*	*40-140*		
Surrogate: Ortho-Terphenyl	*3.09*		mg/kg wet		*3.33*		*93*	*40-140*		
Surrogate: 2-Fluorobiphenyl	*1.72*		mg/kg wet		*2.67*		*64*	*40-140*		
LCS (1204235-BS1)						Prepared & Analyzed: 27-Feb-12				
C9-C18 Aliphatic Hydrocarbons	**20.1**		mg/kg wet	5.00	40.0		50	40-140		
C19-C36 Aliphatic Hydrocarbons	**35.5**		mg/kg wet	5.00	53.3		67	40-140		
C11-C22 Aromatic Hydrocarbons	**76.7**		mg/kg wet	5.00	113		68	40-140		
Naphthalene	**3.61**		mg/kg wet	0.166	6.67		54	40-140		
2-Methylnaphthalene	**3.71**		mg/kg wet	0.166	6.67		56	40-140		
Acenaphthylene	**4.09**		mg/kg wet	0.166	6.67		61	40-140		
Acenaphthene	**4.23**		mg/kg wet	0.166	6.67		63	40-140		
Fluorene	**4.40**		mg/kg wet	0.166	6.67		66	40-140		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1204235 - SW846 3545A										
LCS (1204235-BS1)					Prepared & Analyzed: 27-Feb-12					
Phenanthrene	**4.79**		mg/kg wet	0.166	6.67		72	40-140		
Anthracene	**4.61**		mg/kg wet	0.166	6.67		69	40-140		
Fluoranthene	**4.95**		mg/kg wet	0.166	6.67		74	40-140		
Pyrene	**4.74**		mg/kg wet	0.166	6.67		71	40-140		
Benzo (a) anthracene	**4.92**		mg/kg wet	0.166	6.67		74	40-140		
Chrysene	**4.71**		mg/kg wet	0.166	6.67		71	40-140		
Benzo (b) fluoranthene	**4.84**		mg/kg wet	0.166	6.67		73	40-140		
Benzo (k) fluoranthene	**4.37**		mg/kg wet	0.166	6.67		66	40-140		
Benzo (a) pyrene	**4.07**		mg/kg wet	0.166	6.67		61	40-140		
Indeno (1,2,3-cd) pyrene	**4.37**		mg/kg wet	0.166	6.67		66	40-140		
Dibenzo (a,h) anthracene	**4.51**		mg/kg wet	0.166	6.67		68	40-140		
Benzo (g,h,i) perylene	**4.33**		mg/kg wet	0.166	6.67		65	40-140		
n-Nonane (C9)	**2.10**		mg/kg wet	0.166	6.67		31	30-140		
n-Decane	**2.69**		mg/kg wet	0.166	6.67		40	40-140		
n-Dodecane	**3.19**		mg/kg wet	0.166	6.67		48	40-140		
n-Tetradecane	**3.75**		mg/kg wet	0.166	6.67		56	40-140		
n-Hexadecane	**4.19**		mg/kg wet	0.166	6.67		63	40-140		
n-Octadecane	**4.26**		mg/kg wet	0.166	6.67		64	40-140		
n-Nonadecane	**4.28**		mg/kg wet	0.166	6.67		64	40-140		
n-Eicosane	**4.29**		mg/kg wet	0.166	6.67		64	40-140		
n-Docosane	**4.27**		mg/kg wet	0.166	6.67		64	40-140		
n-Tetracosane	**4.18**		mg/kg wet	0.166	6.67		63	40-140		
n-Hexacosane	**4.17**		mg/kg wet	0.166	6.67		63	40-140		
n-Octacosane	**4.21**		mg/kg wet	0.166	6.67		63	40-140		
n-Triacontane	**4.05**		mg/kg wet	0.166	6.67		61	40-140		
n-Hexatriacontane	**3.42**		mg/kg wet	0.166	6.67		51	40-140		
Naphthalene (aliphatic fraction)	**0.00**		mg/kg wet					0-200		
2-Methylnaphthalene (aliphatic fraction)	**0.00**		mg/kg wet					0-200		
Surrogate: 1-Chlorooctadecane	*1.93*		mg/kg wet		*3.33*		*58*	*40-140*		
Surrogate: Ortho-Terphenyl	*2.33*		mg/kg wet		*3.33*		*70*	*40-140*		
Surrogate: 2-Fluorobiphenyl	*1.34*		mg/kg wet		*2.67*		*50*	*40-140*		
Naphthalene Breakthrough	0.00		%					0-5		
2-Methylnaphthalene Breakthrough	0.00		%					0-5		
LCS (1204235-BS2)					Prepared & Analyzed: 27-Feb-12					
C9-C18 Aliphatic Hydrocarbons	**26.5**		mg/kg wet	5.00	40.0		66	40-140		
C19-C36 Aliphatic Hydrocarbons	**45.2**		mg/kg wet	5.00	53.3		85	40-140		
C11-C22 Aromatic Hydrocarbons	**80.0**		mg/kg wet	5.00	113		71	40-140		
Naphthalene	**3.17**		mg/kg wet	0.166	6.67		48	40-140		
2-Methylnaphthalene	**3.06**		mg/kg wet	0.166	6.67		46	40-140		
Acenaphthylene	**3.63**		mg/kg wet	0.166	6.67		54	40-140		
Acenaphthene	**3.86**		mg/kg wet	0.166	6.67		58	40-140		
Fluorene	**4.47**		mg/kg wet	0.166	6.67		67	40-140		
Phenanthrene	**5.08**		mg/kg wet	0.166	6.67		76	40-140		
Anthracene	**4.72**		mg/kg wet	0.166	6.67		71	40-140		
Fluoranthene	**5.12**		mg/kg wet	0.166	6.67		77	40-140		
Pyrene	**4.94**		mg/kg wet	0.166	6.67		74	40-140		
Benzo (a) anthracene	**5.10**		mg/kg wet	0.166	6.67		77	40-140		
Chrysene	**4.64**		mg/kg wet	0.166	6.67		70	40-140		
Benzo (b) fluoranthene	**4.71**		mg/kg wet	0.166	6.67		71	40-140		
Benzo (k) fluoranthene	**4.45**		mg/kg wet	0.166	6.67		67	40-140		
Benzo (a) pyrene	**4.26**		mg/kg wet	0.166	6.67		64	40-140		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1204235 - SW846 3545A										
LCS (1204235-BS2)					Prepared & Analyzed: 27-Feb-12					
Indeno (1,2,3-cd) pyrene	**4.59**		mg/kg wet	0.166	6.67		69	40-140		
Dibenzo (a,h) anthracene	**4.62**		mg/kg wet	0.166	6.67		69	40-140		
Benzo (g,h,i) perylene	**4.60**		mg/kg wet	0.166	6.67		69	40-140		
n-Nonane (C9)	**3.26**		mg/kg wet	0.166	6.67		49	30-140		
n-Decane	**3.83**		mg/kg wet	0.166	6.67		57	40-140		
n-Dodecane	**4.25**		mg/kg wet	0.166	6.67		64	40-140		
n-Tetradecane	**4.75**		mg/kg wet	0.166	6.67		71	40-140		
n-Hexadecane	**5.09**		mg/kg wet	0.166	6.67		76	40-140		
n-Octadecane	**5.11**		mg/kg wet	0.166	6.67		77	40-140		
n-Nonadecane	**5.07**		mg/kg wet	0.166	6.67		76	40-140		
n-Eicosane	**5.04**		mg/kg wet	0.166	6.67		76	40-140		
n-Docosane	**4.96**		mg/kg wet	0.166	6.67		74	40-140		
n-Tetracosane	**4.83**		mg/kg wet	0.166	6.67		72	40-140		
n-Hexacosane	**4.84**		mg/kg wet	0.166	6.67		73	40-140		
n-Octacosane	**4.86**		mg/kg wet	0.166	6.67		73	40-140		
n-Triacontane	**4.68**		mg/kg wet	0.166	6.67		70	40-140		
n-Hexatriacontane	**3.99**		mg/kg wet	0.166	6.67		60	40-140		
Naphthalene (aliphatic fraction)	**0.00**		mg/kg wet					0-200		
2-Methylnaphthalene (aliphatic fraction)	**0.00**		mg/kg wet					0-200		
Surrogate: 1-Chlorooctadecane	*2.39*		mg/kg wet		*3.33*		*72*	*40-140*		
Surrogate: Ortho-Terphenyl	*2.46*		mg/kg wet		*3.33*		*74*	*40-140*		
Surrogate: 2-Fluorobiphenyl	*1.34*		mg/kg wet		*2.67*		*50*	*40-140*		
Naphthalene Breakthrough	0.00		%					0-5		
2-Methylnaphthalene Breakthrough	0.00		%					0-5		
LCS Dup (1204235-BSD1)					Prepared & Analyzed: 27-Feb-12					
C9-C18 Aliphatic Hydrocarbons	**19.7**		mg/kg wet	5.00	40.0		49	40-140	2	25
C19-C36 Aliphatic Hydrocarbons	**36.5**		mg/kg wet	5.00	53.3		68	40-140	3	25
C11-C22 Aromatic Hydrocarbons	**76.7**		mg/kg wet	5.00	113		68	40-140	0	25
Naphthalene	**3.21**		mg/kg wet	0.166	6.67		48	40-140	12	25
2-Methylnaphthalene	**3.35**		mg/kg wet	0.166	6.67		50	40-140	10	25
Acenaphthylene	**3.94**		mg/kg wet	0.166	6.67		59	40-140	4	25
Acenaphthene	**4.03**		mg/kg wet	0.166	6.67		61	40-140	5	25
Fluorene	**4.44**		mg/kg wet	0.166	6.67		67	40-140	0.9	25
Phenanthrene	**4.90**		mg/kg wet	0.166	6.67		73	40-140	2	25
Anthracene	**4.66**		mg/kg wet	0.166	6.67		70	40-140	1	25
Fluoranthene	**5.09**		mg/kg wet	0.166	6.67		76	40-140	3	25
Pyrene	**4.91**		mg/kg wet	0.166	6.67		74	40-140	3	25
Benzo (a) anthracene	**5.10**		mg/kg wet	0.166	6.67		77	40-140	4	25
Chrysene	**4.59**		mg/kg wet	0.166	6.67		69	40-140	3	25
Benzo (b) fluoranthene	**5.00**		mg/kg wet	0.166	6.67		75	40-140	3	25
Benzo (k) fluoranthene	**4.50**		mg/kg wet	0.166	6.67		67	40-140	3	25
Benzo (a) pyrene	**4.20**		mg/kg wet	0.166	6.67		63	40-140	3	25
Indeno (1,2,3-cd) pyrene	**4.43**		mg/kg wet	0.166	6.67		66	40-140	1	25
Dibenzo (a,h) anthracene	**4.36**		mg/kg wet	0.166	6.67		65	40-140	3	25
Benzo (g,h,i) perylene	**4.31**		mg/kg wet	0.166	6.67		65	40-140	0.3	25
n-Nonane (C9)	**2.09**		mg/kg wet	0.166	6.67		31	30-140	0.2	25
n-Decane	**2.70**		mg/kg wet	0.166	6.67		40	40-140	0.2	25
n-Dodecane	**3.21**		mg/kg wet	0.166	6.67		48	40-140	0.5	25
n-Tetradecane	**3.81**		mg/kg wet	0.166	6.67		57	40-140	2	25
n-Hexadecane	**4.29**		mg/kg wet	0.166	6.67		64	40-140	2	25
n-Octadecane	**4.51**		mg/kg wet	0.166	6.67		68	40-140	6	25

Extractable Petroleum Hydrocarbons - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1204235 - SW846 3545A										
LCS Dup (1204235-BSD1)					Prepared & Analyzed: 27-Feb-12					
n-Nonadecane	**4.52**		mg/kg wet	0.166	6.67		68	40-140	5	25
n-Eicosane	**4.50**		mg/kg wet	0.166	6.67		67	40-140	5	25
n-Docosane	**4.40**		mg/kg wet	0.166	6.67		66	40-140	3	25
n-Tetracosane	**4.26**		mg/kg wet	0.166	6.67		64	40-140	2	25
n-Hexacosane	**4.25**		mg/kg wet	0.166	6.67		64	40-140	2	25
n-Octacosane	**4.27**		mg/kg wet	0.166	6.67		64	40-140	1	25
n-Triacontane	**4.12**		mg/kg wet	0.166	6.67		62	40-140	2	25
n-Hexatriacontane	**3.48**		mg/kg wet	0.166	6.67		52	40-140	2	25
Naphthalene (aliphatic fraction)	**0.00**		mg/kg wet					0-200		200
2-Methylnaphthalene (aliphatic fraction)	**0.00**		mg/kg wet					0-200		200
Surrogate: 1-Chlorooctadecane	*1.85*		mg/kg wet		*3.33*		*55*	*40-140*		
Surrogate: Ortho-Terphenyl	*2.37*		mg/kg wet		*3.33*		*71*	*40-140*		
Surrogate: 2-Fluorobiphenyl	*1.83*		mg/kg wet		*2.67*		*69*	*40-140*		
Naphthalene Breakthrough	0.00		%					0-5		
2-Methylnaphthalene Breakthrough	0.00		%					0-5		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1204322 - SW846 3050B										
Blank (1204322-BLK1)					Prepared: 29-Feb-12 Analyzed: 01-Mar-12					
Selenium	< 1.47		mg/kg wet	1.47						
Iron	< 3.92		mg/kg wet	3.92						
Magnesium	< 4.91		mg/kg wet	4.91						
Manganese	< 0.981		mg/kg wet	0.981						
Sodium	< 24.5		mg/kg wet	24.5						
Nickel	< 0.981		mg/kg wet	0.981						
Antimony	< 4.91		mg/kg wet	4.91						
Thallium	< 2.94		mg/kg wet	2.94						
Vanadium	< 1.47		mg/kg wet	1.47						
Zinc	< 0.981		mg/kg wet	0.981						
Potassium	< 49.1		mg/kg wet	49.1						
Lead	< 1.47		mg/kg wet	1.47						
Arsenic	< 1.47		mg/kg wet	1.47						
Chromium	< 0.981		mg/kg wet	0.981						
Cobalt	< 0.981		mg/kg wet	0.981						
Cadmium	< 0.491		mg/kg wet	0.491						
Calcium	< 24.5		mg/kg wet	24.5						
Beryllium	< 0.491		mg/kg wet	0.491						
Aluminum	< 4.91		mg/kg wet	4.91						
Silver	< 1.47		mg/kg wet	1.47						
Copper	< 0.981		mg/kg wet	0.981						
Barium	< 0.981		mg/kg wet	0.981						
Duplicate (1204322-DUP1)			**Source: SB44200-07**		Prepared: 29-Feb-12 Analyzed: 01-Mar-12					
Sodium	**50.5**		mg/kg dry	25.1		48.8			4	20
Manganese	**119**		mg/kg dry	1.00		139			15	20
Magnesium	**1530**		mg/kg dry	5.02		1590			4	20
Nickel	**11.3**		mg/kg dry	1.00		11.0			2	20
Lead	**441**		mg/kg dry	1.51		512			15	20
Antimony	**6.66**	QR8	mg/kg dry	5.02		9.26			33	20
Selenium	**0.864**	J	mg/kg dry	1.51		0.947			9	20
Thallium	**1.01**	J	mg/kg dry	3.01		1.03			2	20
Vanadium	**18.3**		mg/kg dry	1.51		19.3			5	20
Zinc	**194**		mg/kg dry	1.00		166			15	20
Potassium	**751**		mg/kg dry	50.2		844			12	20
Iron	**9130**		mg/kg dry	4.02		9750			7	20
Calcium	**934**	QR6	mg/kg dry	25.1		737			24	20
Cadmium	**0.462**	J	mg/kg dry	0.502		0.449			3	20
Beryllium	**0.296**	J	mg/kg dry	0.502		0.254			15	20
Chromium	**8.51**		mg/kg dry	1.00		8.65			2	20
Cobalt	**3.25**		mg/kg dry	1.00		3.55			9	20
Arsenic	**5.84**		mg/kg dry	1.51		6.03			3	20
Aluminum	**4950**		mg/kg dry	5.02		5290			7	20
Silver	**78.9**	QR6	mg/kg dry	1.51		109			32	20
Copper	**361**		mg/kg dry	1.00		321			12	20
Barium	**44.1**		mg/kg dry	1.00		42.6			4	20
Matrix Spike (1204322-MS1)			**Source: SB44200-07**		Prepared: 29-Feb-12 Analyzed: 01-Mar-12					
Lead	**577**	QM7	mg/kg dry	1.59	132	512	49	75-125		
Iron	**11800**	QM2	mg/kg dry	4.23	132	9750	1540	75-125		
Magnesium	**2220**	QM2	mg/kg dry	5.29	132	1590	472	75-125		
Manganese	**297**		mg/kg dry	1.06	132	139	120	75-125		
Nickel	**139**		mg/kg dry	1.06	132	11.0	97	75-125		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1204322 - SW846 3050B										
Matrix Spike (1204322-MS1)			**Source: SB44200-07**		Prepared: 29-Feb-12		Analyzed: 01-Mar-12			
Antimony	**117**		mg/kg dry	5.29	132	9.26	81	75-125		
Potassium	**2700**	QM8	mg/kg dry	52.9	1320	844	140	75-125		
Thallium	**130**		mg/kg dry	3.17	132	1.03	98	75-125		
Zinc	**313**		mg/kg dry	1.06	132	166	111	75-125		
Selenium	**116**		mg/kg dry	1.59	132	0.947	87	75-125		
Vanadium	**155**		mg/kg dry	1.59	132	19.3	103	75-125		
Sodium	**933**	QM8	mg/kg dry	26.4	661	48.8	134	75-125		
Silver	**170**	QM7	mg/kg dry	1.59	132	109	47	75-125		
Calcium	**1790**	QM8	mg/kg dry	26.4	661	737	160	75-125		
Copper	**497**	QM7	mg/kg dry	1.06	132	321	133	75-125		
Chromium	**145**		mg/kg dry	1.06	132	8.65	103	75-125		
Cobalt	**137**		mg/kg dry	1.06	132	3.55	101	75-125		
Cadmium	**135**		mg/kg dry	0.529	132	0.449	102	75-125		
Beryllium	**116**		mg/kg dry	0.529	132	0.254	88	75-125		
Arsenic	**135**		mg/kg dry	1.59	132	6.03	97	75-125		
Aluminum	**8110**	QM2	mg/kg dry	5.29	132	5290	2130	75-125		
Barium	**190**		mg/kg dry	1.06	132	42.6	111	75-125		
Matrix Spike Dup (1204322-MSD1)			**Source: SB44200-07**		Prepared: 29-Feb-12		Analyzed: 01-Mar-12			
Zinc	**337**	QM8	mg/kg dry	1.02	128	166	134	75-125	7	20
Vanadium	**150**		mg/kg dry	1.53	128	19.3	102	75-125	4	20
Thallium	**124**		mg/kg dry	3.06	128	1.03	97	75-125	5	20
Selenium	**112**		mg/kg dry	1.53	128	0.947	87	75-125	4	20
Antimony	**109**		mg/kg dry	5.10	128	9.26	78	75-125	7	20
Lead	**601**	QM7	mg/kg dry	1.53	128	512	70	75-125	4	20
Nickel	**135**		mg/kg dry	1.02	128	11.0	97	75-125	3	20
Manganese	**293**		mg/kg dry	1.02	128	139	121	75-125	2	20
Iron	**11000**	QM2	mg/kg dry	4.08	128	9750	992	75-125	7	20
Magnesium	**2090**	QM2	mg/kg dry	5.10	128	1590	389	75-125	6	20
Potassium	**2580**	QM8	mg/kg dry	51.0	1280	844	136	75-125	5	20
Sodium	**887**	QM8	mg/kg dry	25.5	638	48.8	131	75-125	5	20
Beryllium	**112**		mg/kg dry	0.510	128	0.254	88	75-125	3	20
Copper	**461**		mg/kg dry	1.02	128	321	110	75-125	8	20
Chromium	**138**		mg/kg dry	1.02	128	8.65	101	75-125	5	20
Cobalt	**130**		mg/kg dry	1.02	128	3.55	99	75-125	5	20
Calcium	**1790**	QM8	mg/kg dry	25.5	638	737	165	75-125	0.1	20
Arsenic	**127**		mg/kg dry	1.53	128	6.03	95	75-125	6	20
Aluminum	**7870**	QM2	mg/kg dry	5.10	128	5290	2030	75-125	3	20
Silver	**150**	QM7	mg/kg dry	1.53	128	109	33	75-125	12	20
Cadmium	**129**		mg/kg dry	0.510	128	0.449	101	75-125	5	20
Barium	**213**	QM8	mg/kg dry	1.02	128	42.6	134	75-125	12	20
Post Spike (1204322-PS1)			**Source: SB44200-07**		Prepared: 29-Feb-12		Analyzed: 01-Mar-12			
Selenium	**120**		mg/kg dry	1.62	135	0.947	88	80-120		
Sodium	**703**		mg/kg dry	27.1	677	48.8	97	80-120		
Potassium	**2050**		mg/kg dry	54.1	1350	844	89	80-120		
Iron	**8960**	QM2	mg/kg dry	4.33	135	9750	-584	80-120		
Magnesium	**1590**	QM2	mg/kg dry	5.41	135	1590	-4	80-120		
Manganese	**259**		mg/kg dry	1.08	135	139	89	80-120		
Antimony	**132**		mg/kg dry	5.41	135	9.26	90	80-120		
Thallium	**133**		mg/kg dry	3.25	135	1.03	97	80-120		
Vanadium	**150**		mg/kg dry	1.62	135	19.3	97	80-120		
Zinc	**282**		mg/kg dry	1.08	135	166	85	80-120		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1204322 - SW846 3050B										
Post Spike (1204322-PS1)			**Source: SB44200-07**			Prepared: 29-Feb-12	Analyzed: 01-Mar-12			
Nickel	**139**		mg/kg dry	1.08	135	11.0	95	80-120		
Cadmium	**136**		mg/kg dry	0.541	135	0.449	100	80-120		
Aluminum	**4990**	QM2	mg/kg dry	5.41	135	5290	-220	80-120		
Chromium	**142**		mg/kg dry	1.08	135	8.65	98	80-120		
Cobalt	**136**		mg/kg dry	1.08	135	3.55	98	80-120		
Arsenic	**134**		mg/kg dry	1.62	135	6.03	95	80-120		
Beryllium	**118**		mg/kg dry	0.541	135	0.254	87	80-120		
Calcium	**1300**		mg/kg dry	27.1	677	737	83	80-120		
Barium	**173**		mg/kg dry	1.08	135	42.6	97	80-120		
Reference (1204322-SRM1)						Prepared: 29-Feb-12	Analyzed: 01-Mar-12			
Magnesium	**1530**		mg/kg wet	5.00	1530		100	76.25-110.93		
Iron	**6700**		mg/kg wet	4.00	6710		100	50.76-149.62		
Manganese	**184**		mg/kg wet	1.00	170		108	82.28-117.41		
Sodium	**299**		mg/kg wet	25.0	282		106	76.64-126.18		
Nickel	**62.8**		mg/kg wet	1.00	60.4		104	82.03-117.8		
Lead	**53.8**		mg/kg wet	1.50	52.7		102	83.1-116.5		
Antimony	**33.3**		mg/kg wet	5.00	57.9		58	0-223		
Selenium	**53.1**		mg/kg wet	1.50	56.3		94	78.73-121.82		
Thallium	**85.8**		mg/kg wet	3.00	80.9		106	81.01-118.98		
Vanadium	**65.1**		mg/kg wet	1.50	60.9		107	79.75-120.17		
Zinc	**99.4**		mg/kg wet	1.00	93.7		106	81.97-118.03		
Potassium	**1450**		mg/kg wet	50.0	1470		98	67.44-131.7		
Cadmium	**107**		mg/kg wet	0.500	97.8		109	83.24-116.75		
Calcium	**3670**		mg/kg wet	25.0	3500		105	82.45-117.54		
Cobalt	**97.0**		mg/kg wet	1.00	91.1		106	83.7-116.29		
Copper	**67.1**		mg/kg wet	1.00	63.0		107	83.74-116.26		
Arsenic	**124**		mg/kg wet	1.50	121		103	83.12-117.3		
Chromium	**72.6**		mg/kg wet	1.00	65.5		111	81.25-117.97		
Beryllium	**46.2**		mg/kg wet	0.500	47.8		97	83.28-116.83		
Aluminum	**4760**		mg/kg wet	5.00	5170		92	50.59-149.5		
Silver	**26.1**		mg/kg wet	1.50	24.2		108	66.17-133.62		
Barium	**137**		mg/kg wet	1.00	129		106	84.12-115.87		
Reference (1204322-SRM2)						Prepared: 29-Feb-12	Analyzed: 01-Mar-12			
Lead	**53.4**		mg/kg wet	1.50	52.1		102	83.1-116.5		
Iron	**6480**		mg/kg wet	4.00	6620		98	50.76-149.62		
Magnesium	**1490**		mg/kg wet	5.00	1510		99	76.25-110.93		
Manganese	**179**		mg/kg wet	1.00	168		106	82.28-117.41		
Nickel	**61.4**		mg/kg wet	1.00	59.6		103	82.03-117.8		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1204322 - SW846 3050B										
Reference (1204322-SRM2)						Prepared: 29-Feb-12 Analyzed: 01-Mar-12				
Antimony	**29.9**		mg/kg wet	5.00	57.1		52	0-223		
Selenium	**53.0**		mg/kg wet	1.50	55.6		95	78.73-121.82		
Thallium	**86.0**		mg/kg wet	3.00	79.9		108	81.01-118.98		
Vanadium	**64.3**		mg/kg wet	1.50	60.1		107	79.75-120.17		
Zinc	**98.8**		mg/kg wet	1.00	92.5		107	81.97-118.03		
Potassium	**1380**		mg/kg wet	50.0	1450		95	67.44-131.7		
Sodium	**295**		mg/kg wet	25.0	278		106	76.64-126.18		
Calcium	**3660**		mg/kg wet	25.0	3460		106	82.45-117.54		
Beryllium	**45.4**		mg/kg wet	0.500	47.2		96	83.28-116.83		
Copper	**66.1**		mg/kg wet	1.00	62.2		106	83.74-116.26		
Chromium	**71.4**		mg/kg wet	1.00	64.7		110	81.25-117.97		
Cadmium	**104**		mg/kg wet	0.500	96.5		108	83.24-116.75		
Arsenic	**124**		mg/kg wet	1.50	120		104	83.12-117.3		
Aluminum	**4720**		mg/kg wet	5.00	5100		93	50.59-149.5		
Silver	**25.4**		mg/kg wet	1.50	23.9		106	66.17-133.62		
Cobalt	**95.8**		mg/kg wet	1.00	90.0		106	83.7-116.29		
Barium	**136**		mg/kg wet	1.00	127		106	84.12-115.87		
Batch 1204423 - EPA200/SW7000 Series										
Blank (1204423-BLK1)						Prepared: 29-Feb-12 Analyzed: 01-Mar-12				
Mercury	< 0.0288		mg/kg wet	0.0288						
Duplicate (1204423-DUP1)			**Source: SB44200-07**			Prepared: 29-Feb-12 Analyzed: 01-Mar-12				
Mercury	**0.130**		mg/kg dry	0.0303		0.111			16	20
Matrix Spike (1204423-MS1)			**Source: SB44200-07**			Prepared: 29-Feb-12 Analyzed: 01-Mar-12				
Mercury	**0.625**		mg/kg dry	0.160	0.445	0.111	116	75-125		
Matrix Spike Dup (1204423-MSD1)			**Source: SB44200-07**			Prepared: 29-Feb-12 Analyzed: 01-Mar-12				
Mercury	**0.608**		mg/kg dry	0.163	0.452	0.111	110	75-125	3	20
Reference (1204423-SRM1)						Prepared: 29-Feb-12 Analyzed: 01-Mar-12				
Mercury	**3.89**		mg/kg wet	0.300	3.16		123	71.61-128.22		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1205728 - SW846 3010A										
Blank (1205728-BLK1)					Prepared: 14-Mar-12 Analyzed: 15-Mar-12					
Lead	< 0.0150		mg/l	0.0150						
Silver	< 0.0100		mg/l	0.0100						
LCS (1205728-BS1)					Prepared: 14-Mar-12 Analyzed: 15-Mar-12					
Lead	**2.35**		mg/l	0.0150	2.50		94	85-115		
Silver	**2.77**		mg/l	0.0100	2.50		111	85-115		
LCS Dup (1205728-BSD1)					Prepared: 14-Mar-12 Analyzed: 15-Mar-12					
Lead	**2.35**		mg/l	0.0150	2.50		94	85-115	0.09	20
Silver	**2.75**		mg/l	0.0100	2.50		110	85-115	0.7	104
Duplicate (1205728-DUP1)			**Source: SB44200-06**		Prepared: 14-Mar-12 Analyzed: 15-Mar-12					
Lead	**0.981**		mg/l	0.0150		0.989			0.7	20
Silver	**0.216**		mg/l	0.0100		0.225			4	20
Matrix Spike (1205728-MS1)			**Source: SB44200-06**		Prepared: 14-Mar-12 Analyzed: 15-Mar-12					
Lead	**3.33**		mg/l	0.0150	2.50	0.989	93	75-125		
Silver	**2.95**		mg/l	0.0100	2.50	0.225	109	75-125		
Matrix Spike Dup (1205728-MSD1)			**Source: SB44200-06**		Prepared: 14-Mar-12 Analyzed: 15-Mar-12					
Lead	**3.33**		mg/l	0.0150	2.50	0.989	94	75-125	0.2	20
Silver	**2.94**		mg/l	0.0100	2.50	0.225	108	75-125	0.5	20
Post Spike (1205728-PS1)			**Source: SB44200-06**		Prepared: 14-Mar-12 Analyzed: 15-Mar-12					
Lead	**3.37**		mg/l	0.0150	2.50	0.989	95	75-125		
Silver	**2.95**		mg/l	0.0100	2.50	0.225	109	75-125		

General Chemistry Parameters - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1203972 - General Preparation										
Duplicate (1203972-DUP1)			**Source: SB44200-06**			Prepared & Analyzed: 22-Feb-12				
% Solids	**83.3**		%			85.8			3	20

Extractable Petroleum Hydrocarbons - CCV Evaluation Report

Analyte(s)	Average RF	CCRF	% D	Limit
Batch S202248				
Calibration Check (S202248-CCV1)				
C9-C18 Aliphatic Hydrocarbons	9.753676E+07	9.412685E+07	-2.3	25
C19-C36 Aliphatic Hydrocarbons	1.74995E+08	1.089019E+08	-13.0	25
Unadjusted C11-C22 Aromatic Hydrocarbons	7.811287E+07	3.689634E+07	10.0	25
Naphthalene	7.096752	8.642469	21.8	25
2-Methylnaphthalene	4.990155	5.888099	18.0	25
Acenaphthylene	7.238866	8.275317	14.3	25
Acenaphthene	4.407358	5.069573	15.0	25
Fluorene	5.261923	5.992577	13.9	25
Phenanthrene	7.526813	8.445451	12.2	25
Anthracene	7.472101	8.449169	13.1	25
Fluoranthene	7.735997	8.527804	10.2	25
Pyrene	8.171199	9.193786	12.5	25
Benzo (a) anthracene	7.309387	7.999789	9.4	25
Chrysene	7.474435	8.158862	9.2	25
Benzo (b) fluoranthene	6.941422	8.060063	16.1	25
Benzo (k) fluoranthene	7.097842	7.201275	1.5	25
Benzo (a) pyrene	6.564235	7.315486	11.4	25
Indeno (1,2,3-cd) pyrene	7.043851	8.01561	13.8	25
Dibenzo (a,h) anthracene	5.956474	6.549034	9.9	25
Benzo (g,h,i) perylene	5.904766	6.785905	14.9	25
n-Decane	92630.09	92597.77	-0.03	25
n-Dodecane	93749.71	95558.18	1.9	25
n-Hexadecane	91190.23	92352.82	1.3	25
n-Nonane (C9)	91098.03	87185.85	-4.3	30
n-Octadecane	91228.89	91817.14	0.6	25
n-Tetradecane	92613.42	94538.99	2.1	25
n-Eicosane	90559.76	91628.31	1.2	25
n-Nonadecane	91099.76	91891.11	0.9	25
n-Docosane	92143.43	92707.76	0.6	25
n-Octacosane	95719.09	96144.6	0.4	25
n-Tetracosane	93787.97	96170.87	2.5	25
n-Hexacosane	96288.9	96258.88	-0.03	25
n-Triacontane	100440.4	101903.9	1.5	25
n-Hexatriacontane	99294.58	107858.4	8.6	25
Calibration Check (S202248-CCV2)				
C9-C18 Aliphatic Hydrocarbons	9.753676E+07	1.080952E+08	12.0	25
C19-C36 Aliphatic Hydrocarbons	1.74995E+08	1.110579E+08	-11.0	25
Unadjusted C11-C22 Aromatic Hydrocarbons	7.811287E+07	4.862964E+07	8.8	25
Naphthalene	7.096752	8.454755	19.1	25
2-Methylnaphthalene	4.990155	5.897711	18.2	25
Acenaphthylene	7.238866	8.568773	18.4	25
Acenaphthene	4.407358	4.910304	11.4	25
Fluorene	5.261923	5.849591	11.2	25
Phenanthrene	7.526813	8.199522	8.9	25
Anthracene	7.472101	8.261527	10.6	25
Fluoranthene	7.735997	8.591146	11.1	25
Pyrene	8.171199	9.183733	12.4	25
Benzo (a) anthracene	7.309387	8.103951	10.9	25
Chrysene	7.474435	8.296582	11.0	25
Benzo (b) fluoranthene	6.941422	7.721777	11.2	25
Benzo (k) fluoranthene	7.097842	8.103778	14.2	25

Analyte(s)	Average RF	CCRF	% D	Limit
Batch S202248				
Calibration Check (S202248-CCV2)				
Benzo (a) pyrene	6.564235	7.618669	16.1	25
Indeno (1,2,3-cd) pyrene	7.043851	8.700409	23.5	25
Dibenzo (a,h) anthracene	5.956474	7.16386	20.3	25
Benzo (g,h,i) perylene	5.904766	7.03981	19.2	25
n-Decane	92630.09	101991.2	10.1	25
n-Dodecane	93749.71	102892	9.8	25
n-Hexadecane	91190.23	102547.5	12.5	25
n-Nonane (C9)	91098.03	99200.13	8.9	30
n-Octadecane	91228.89	101268.2	11.0	25
n-Tetradecane	92613.42	102481.9	10.7	25
n-Eicosane	90559.76	99693.49	10.1	25
n-Nonadecane	91099.76	100786.3	10.6	25
n-Docosane	92143.43	99871.43	8.4	25
n-Octacosane	95719.09	98033.99	2.4	25
n-Tetracosane	93787.97	97731.2	4.2	25
n-Hexacosane	96288.9	97986.98	1.8	25
n-Triacontane	100440.4	99175.33	-1.3	25
n-Hexatriacontane	99294.58	87971.63	-11.4	25

Analyte(s)	Average RF	CCRF	% D	Limit
Batch S202178				
Calibration Check (S202178-CCV1)				
Benzene	125338.6	103931.7	-17.1	25
Ethylbenzene	69695.54	59487.58	-14.6	25
Methyl tert-butyl ether	67938.23	56338.22	-17.1	25
Naphthalene	64783.47	56751.88	-12.4	25
Toluene	89233.04	76643.3	-14.1	25
m,p-Xylene	77150.11	65987.09	-14.5	25
o-Xylene	64126.76	55457.14	-13.5	25
2-Methylpentane	49629.85	38817.44	-21.8	25
n-Nonane	31577.51	28037.82	-11.2	30
n-Pentane	45333.86	34102.98	-24.8	25
1,2,4-Trimethylbenzene	65528.51	55048.82	-16.0	25
2,2,4-Trimethylpentane	45933.74	40255.14	-12.4	25
n-Butylcyclohexane	31621.02	25735.64	-18.6	25
n-Decane	27201.97	20843.74	-23.4	25
Calibration Check (S202178-CCV2)				
Benzene	125338.6	105188	-16.1	25
Ethylbenzene	69695.54	60297.62	-13.5	25
Methyl tert-butyl ether	67938.23	55458.22	-18.4	25
Naphthalene	64783.47	57092.22	-11.9	25
Toluene	89233.04	77576.68	-13.1	25
m,p-Xylene	77150.11	66434.71	-13.9	25
o-Xylene	64126.76	55165.86	-14.0	25
2-Methylpentane	49629.85	41285.8	-16.8	25
n-Nonane	31577.51	30484.94	-3.5	30
n-Pentane	45333.86	34497.72	-23.9	25
1,2,4-Trimethylbenzene	65528.51	55512.68	-15.3	25
2,2,4-Trimethylpentane	45933.74	42301.74	-7.9	25
n-Butylcyclohexane	31621.02	29466.2	-6.8	25
n-Decane	27201.97	25649.88	-5.7	25

Notes and Definitions

GS1	Sample dilution required for high concentration of target analytes to be within the instrument calibration range.
QM2	The RPD and/or percent recovery for this QC spike sample cannot be accurately calculated due to the high concentration of analyte inherent in the sample.
QM7	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
QM8	The spike recovery exceeded the QC control limits for the MS and/or MSD. The batch was accepted based upon acceptable PS and /or LCS recovery.
QR6	The RPD exceeded the QC control limits; however precision is demonstrated with acceptable RPD values for MS/MSD.
QR8	Analyses are not controlled on RPD values from sample concentrations that are less than 5 times the reporting level. The batch is accepted based upon the difference between the sample and duplicate is less than or equal to the reporting limit.
R05	Elevated Reporting Limits due to the presence of high levels of non-target analytes.
VOC8	Reporting limits reflect SW846 5030 extraction technique due to interference and/or QC issues using SW846 5035A extraction technique.
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference
J	Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).

A Matrix Spike and Matrix Spike Duplicate (MS/MSD) for MADEP EPH CAM may not have been analyzed with the samples in this work order. According to the method these spikes are performed only when requested by the client. If requested the spike recoveries are included in the batch QC data.

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

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

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

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

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

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

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

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

Validated by:
June O'Connor
Kimberly Wisk
Nicole Leja

SB44200 CL

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

CHAIN OF CUSTODY RECORD

Page 1 of 1

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

Report To: Val Tillinghast
OTO
293 Bridge St Suite 500
Springfield, MA
Project Mgr.: V. Tillinghast

Invoice To: OTO
P.O. No.: _____ RQN: _____

Project No.: 1753-03-01
Site Name: Lunt Silversmith
Location: Greenfield State: MA
Sampler(s): B. Thompson

1=$Na_2S_2O_3$ 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid
7=CH_3OH 8= $NaHSO_4$ 9= DI/Methanol 10= As Is

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

G=Grab C=Composite

Lab Id:	Sample Id:	Date:	Time:	Type	Matrix	Preservative	Containers: # of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Analyses: VOCs 8260	EPH	TAL-23	VPH					QA Reporting Notes: (check if needed)
SB44200 01	LS-29 (0-4)	2/21/12	1050	C	SO	9/10	3	1			X	X	X						
02	LS-29 (6-8)		1055			9/10	3	1			X	X							
03	LS-27 (0-2)		1117			9/10	3	1			X	X	X						
04	LS-27 (6-8)		1122			10		1				X							
05	LS-30 (6-8)		1155			9/10	4	1			X	X		X					
06	LS-29 (0-1)		1018			10		1					X						
07	LS-29 (1-2)		1020			10		1					X						

QA Reporting Notes (check if needed):
- [x] Provide MA DEP MCP CAM Report
- [ ] Provide CT DPH RCP Report

QA/QC Reporting Level
- [x] Standard
- [ ] No QC
- [ ] Other _____

State specific reporting standards: _____

- [ ] Fax results when available to (_____) _____
- [x] E-mail to tillinghast@oto-env.com
- EDD Format _____

Condition upon receipt: [x] Iced [ ] Ambient [ ] °C 9.3

Relinquished by:	Received by:	Date:	Time:
		2/21/12	1520

SB44200 CLC

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

CHAIN OF CUSTODY RECORD

Page 1 of 1

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

Report To: Val Tillinghast
OTO
293 Bridge St Suite 520
Springfield, MA
Project Mgr.: V. Tillinghast

Invoice To: OTO
P.O. No.: _____ RQN: _____

Project No.: 1753-03-01
Site Name: Lunt Silversmith
Location: Greenfield State: MA
Sampler(s): B. Thompson

1=$Na_2S_2O_3$ 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid
7=CH_3OH 8= $NaHSO_4$ 9= DI/Methanol 10= As Is

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

G=Grab C=Composite

Lab Id:	Sample Id:	Date:	Time:	Type	Matrix	Preservative	Containers: # of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Analyses: VOCs 8260	EPH	TAL-23	VPH	TCLP-lead & TCLP-SILVER	QA Reporting Notes: (check if needed)
SB44200-01	LS-24 (0-4)	2/21/12	1050	C	SO	9/10	3	1			X	X	X			X-Added TCLP-lead & TCLP-SILVER to LS-29
02	LS-24 (6-8)		1055			9/10	3	1			X	X				
03	LS-27 (0-2)		1117			9/10	3	1			X	X	X			Sample -01 per client email 3/9 L.C.
04	LS-27 (6-8)		1122			10		1				X				
05	LS-30 (6-8)		1155			9/10	4	1			X	X		X		
06	LS-29 (0-1)		1018			10		1					X		X	
07	LS-29 (1-2)		1020			10		1					X			

- [x] Provide MA DEP MCP CAM Report
- [ ] Provide CT DPH RCP Report

QA/QC Reporting Level
- [x] Standard
- [ ] No QC
- [ ] Other _____

State specific reporting standards: _____

- [ ] Fax results when available to (_____) _____
- [x] E-mail to tillinghast@oto-env.com
- EDD Format _____

Condition upon receipt: [x] Iced [ ] Ambient [ ] °C 9.3

Relinquished by:	Received by:	Date:	Time:
		2/21/12	1520

Report Date:
20-Mar-12 14:42

☑ Final Report
☐ Re-Issued Report
☐ Revised Report

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

Laboratory Report

O'Reilly, Talbot & Okun
293 Bridge Street; Suite 500
Springfield, MA 01103
Attn: Val Tillinghast

Project: Lunt Silversmith-Greenfield, MA
Project #: 1753-03-01

Laboratory ID	Client Sample ID	Container	Matrix	Date Sampled	Date Received
SB45432-01	SG-6	Summa canister 6 liter	Air	15-Mar-12 09:53	15-Mar-12 12:41
SB45432-02	SG-7	Summa canister 6 liter	Air	15-Mar-12 09:55	15-Mar-12 12:41

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

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

Authorized by:

Nicole Leja
Laboratory Director

Spectrum Analytical holds certification in the State of Massachusetts for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of Massachusetts does not offer certification for all analytes.
Please note that this report contains 21 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Spectrum Analytical, Inc.

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

MassDEP Analytical Protocol Certification Form

Laboratory Name: Spectrum Analytical, Inc.	**Project #:** 1753-03-01
Project Location: Lunt Silversmith-Greenfield, MA	**RTN:**
This form provides certifications for the following data set:	SB45432-01 through SB45432-02
Matrices: Air	

CAM Protocol

8260 VOC CAM II A	7470/7471 Hg CAM III B	MassDEP VPH CAM IV A	8081 Pesticides CAM V B	7196 Hex Cr CAM VI B	MassDEP APH CAM IX A
8270 SVOC CAM II B	7010 Metals CAM III C	MassDEP EPH CAM IV B	8151 Herbicides CAM V C	8330 Explosives CAM VIII A	✓ TO-15 VOC CAM IX B
6010 Metals CAM III A	6020 Metals CAM III D	8082 PCB CAM V A	9014 Total Cyanide/PAC CAM VI A	6860 Perchlorate CAM VIII B	

Affirmative responses to questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain of Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	✓ Yes	No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	✓ Yes	No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	✓ Yes	No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	✓ Yes	No
E	a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes ✓ Yes	No No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to questions A through E)?	✓ Yes	No

Responses to questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	Yes	✓ No

<u>Data User Note:</u> Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.

H	Were all QC performance standards specified in the CAM protocol(s) achieved?	Yes	✓ No
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	✓ Yes	No

All negative responses are addressed in a case narrative on the cover page of this report.

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

Nicole Leja
Laboratory Director
Date: 3/20/2012

CASE NARRATIVE:

Samples are received and the pressure is recorded from the gauge on the canister. If a canister does not have a gauge, a vacuum gauge is attached to the valve and pressure is recorded. If the canister is below -10 psig, the can must be pressurized to 0 psig. Tedlar bags do not have the pressure recorded. The can pressure can be located within this report in the sample header information.

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

MADEP has published a list of analytical methods (CAM) which provides a series of recommended protocols for the acquisition, analysis and reporting of analytical data in support of MCP decisions. "Presumptive Certainty" can be established only for those methods published by the MADEP in the MCP CAM. The compounds and/or elements reported were specifically requested by the client on the Chain of Custody and in some cases may not include the full analyte list as defined in the method.

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

EPA TO-15

Samples:

SB45432-01 *SG-6*

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

The concentration indicated for this analyte is an estimated value. This value is considered an estimate (CLP E-flag).

Ethanol

SB45432-01RE1 *SG-6*

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

SB45432-02 *SG-7*

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

The concentration indicated for this analyte is an estimated value. This value is considered an estimate (CLP E-flag).

Ethanol

SB45432-02RE1 *SG-7*

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

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SG-6	1753-03-01	Air	15-Mar-12 09:53	15-Mar-12
SB45432-01				

Air Quality Analyses

CAS No.	Analyte(s)	Result/Units	*RDL	Result ug/m³	*RDL	Flag	Method Ref.	Analyzed	Analyst	Batch	Cert.
Volatile Organics in Air		ppbv	Prepared 16-Mar-12 Dilution: 2			GS1	Can pressure: -1 Can ID: 0113				
115-07-1	Propene	< 1.00	1.00	< 1.72	1.72		EPA TO-15	16-Mar-12	KG	1205964	
75-71-8	Dichlorodifluoromethane (Freon12)	< 1.00	1.00	< 4.94	4.94		"	"	"	"	
74-87-3	Chloromethane	< 1.00	1.00	< 2.07	2.07		"	"	"	"	
76-14-2	1,2-Dichlorotetrafluoroethane (Freon 114)	< 1.00	1.00	< 6.99	6.99		"	"	"	"	
75-01-4	Vinyl chloride	< 1.00	1.00	< 2.56	2.56		"	"	"	"	
106-99-0	1,3-Butadiene	< 1.00	1.00	< 2.21	2.21		"	"	"	"	
74-83-9	Bromomethane	< 1.00	1.00	< 3.88	3.88		"	"	"	"	
75-00-3	Chloroethane	< 1.00	1.00	< 2.64	2.64		"	"	"	"	
67-64-1	Acetone	14.1	1.00	33.51	2.38		"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.00	1.00	< 5.62	5.62		"	"	"	"	
64-17-5	Ethanol	253	1.00	477.03	1.89	E	"	"	"	"	
107-13-1	Acrylonitrile	< 1.00	1.00	< 2.17	2.17		"	"	"	"	
75-35-4	1,1-Dichloroethene	< 1.00	1.00	< 3.97	3.97		"	"	"	"	
75-09-2	Methylene chloride	1.78	1.00	6.18	3.47		"	"	"	"	
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.00	1.00	< 7.66	7.66		"	"	"	"	
75-15-0	Carbon disulfide	< 1.00	1.00	< 3.11	3.11		"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 1.00	1.00	< 3.97	3.97		"	"	"	"	
75-34-3	1,1-Dichloroethane	< 1.00	1.00	< 4.05	4.05		"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 1.00	1.00	< 3.61	3.61		"	"	"	"	
67-63-0	Isopropyl alcohol	36.4	1.00	89.33	2.45		"	"	"	"	
78-93-3	2-Butanone (MEK)	4.18	1.00	12.33	2.95		"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	< 1.00	1.00	< 3.97	3.97		"	"	"	"	
110-54-3	Hexane	4.02	1.00	14.17	3.53		"	"	"	"	
141-78-6	Ethyl acetate	< 1.00	1.00	< 3.60	3.60		"	"	"	"	
67-66-3	Chloroform	< 1.00	1.00	< 4.87	4.87		"	"	"	"	
109-99-9	Tetrahydrofuran	< 1.00	1.00	< 2.95	2.95		"	"	"	"	
107-06-2	1,2-Dichloroethane	< 1.00	1.00	< 4.05	4.05		"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.00	1.00	< 5.46	5.46		"	"	"	"	
71-43-2	Benzene	< 1.00	1.00	< 3.19	3.19		"	"	"	"	
56-23-5	Carbon tetrachloride	< 1.00	1.00	< 6.29	6.29		"	"	"	"	
110-82-7	Cyclohexane	< 1.00	1.00	< 3.44	3.44		"	"	"	"	
78-87-5	1,2-Dichloropropane	< 1.00	1.00	< 4.62	4.62		"	"	"	"	
75-27-4	Bromodichloromethane	< 1.00	1.00	< 6.70	6.70		"	"	"	"	
79-01-6	Trichloroethene	< 1.00	1.00	< 5.37	5.37		"	"	"	"	
123-91-1	1,4-Dioxane	< 1.00	1.00	< 3.60	3.60		"	"	"	"	
142-82-5	n-Heptane	< 1.00	1.00	< 4.10	4.10		"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 1.00	1.00	< 4.10	4.10		"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 1.00	1.00	< 4.54	4.54		"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 1.00	1.00	< 4.54	4.54		"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 1.00	1.00	< 5.46	5.46		"	"	"	"	
108-88-3	Toluene	< 1.00	1.00	< 3.76	3.76		"	"	"	"	
591-78-6	2-Hexanone (MBK)	< 1.00	1.00	< 4.10	4.10		"	"	"	"	
124-48-1	Dibromochloromethane	< 1.00	1.00	< 8.52	8.52		"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 1.00	1.00	< 7.69	7.69		"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SG-6	1753-03-01	Air	15-Mar-12 09:53	15-Mar-12
SB45432-01				

CAS No.	Analyte(s)	Result/Units	*RDL	Result ug/m³	*RDL	Flag	Method Ref.	Analyzed	Analyst	Batch	Cert.
Air Quality Analyses											
Volatile Organics in Air		ppbv	Prepared 16-Mar-12 Dilution: 2			GS1	Can pressure: -1 Can ID: 0113				
127-18-4	Tetrachloroethene	< 1.00	1.00	< 6.78	6.78		EPA TO-15	16-Mar-12	KG	1205964	
108-90-7	Chlorobenzene	< 1.00	1.00	< 4.61	4.61		"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 1.00	1.00	< 6.87	6.87		"	"	"	"	
100-41-4	Ethylbenzene	< 1.00	1.00	< 4.34	4.34		"	"	"	"	
179601-23-1	m,p-Xylene	< 1.00	1.00	< 4.34	4.34		"	"	"	"	
75-25-2	Bromoform	< 1.00	1.00	< 10.34	10.34		"	"	"	"	
100-42-5	Styrene	< 1.00	1.00	< 4.25	4.25		"	"	"	"	
95-47-6	o-Xylene	< 1.00	1.00	< 4.34	4.34		"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 1.00	1.00	< 6.87	6.87		"	"	"	"	
98-82-8	Isopropylbenzene	< 1.00	1.00	< 4.92	4.92		"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 1.00	1.00	< 4.92	4.92		"	"	"	"	
622-96-8	4-Ethyltoluene	< 1.00	1.00	< 4.92	4.92		"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 1.00	1.00	< 4.92	4.92		"	"	"	"	
91-20-3	Naphthalene	< 1.00	1.00	< 5.24	5.24		"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 1.00	1.00	< 6.01	6.01		"	"	"	"	
100-44-7	Benzyl chloride	< 1.00	1.00	< 5.15	5.15		"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 1.00	1.00	< 6.01	6.01		"	"	"	"	
135-98-8	sec-Butylbenzene	< 1.00	1.00	< 5.49	5.49		"	"	"	"	
99-87-6	4-Isopropyltoluene	< 1.00	1.00	< 5.37	5.37		"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 1.00	1.00	< 6.01	6.01		"	"	"	"	
104-51-8	n-Butylbenzene	< 1.00	1.00	< 5.49	5.49		"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 1.00	1.00	< 7.42	7.42		"	"	"	"	
87-68-3	Hexachlorobutadiene	< 1.00	1.00	< 10.66	10.66		"	"	"	"	
Surrogate recoveries:											
460-00-4	*4-Bromofluorobenzene*	*98*		*70-130 %*			"	"	"	"	
Re-analysis of Volatile Organics in Air			Dilution: 4			GS1					
115-07-1	Propene	< 2.00	2.00	< 3.44	3.44		EPA TO-15	19-Mar-12	KG	1206240	
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.00	2.00	< 9.89	9.89		"	"	"	"	
74-87-3	Chloromethane	< 2.00	2.00	< 4.13	4.13		"	"	"	"	
76-14-2	1,2-Dichlorotetrafluoroethane (Freon 114)	< 2.00	2.00	< 13.98	13.98		"	"	"	"	
75-01-4	Vinyl chloride	< 2.00	2.00	< 5.11	5.11		"	"	"	"	
106-99-0	1,3-Butadiene	< 2.00	2.00	< 4.42	4.42		"	"	"	"	
74-83-9	Bromomethane	< 2.00	2.00	< 7.76	7.76		"	"	"	"	
75-00-3	Chloroethane	< 2.00	2.00	< 5.28	5.28		"	"	"	"	
67-64-1	Acetone	12.6	2.00	29.94	4.75		"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 2.00	2.00	< 11.24	11.24		"	"	"	"	
64-17-5	Ethanol	213	2.00	401.61	3.77		"	"	"	"	
107-13-1	Acrylonitrile	< 2.00	2.00	< 4.34	4.34		"	"	"	"	
75-35-4	1,1-Dichloroethene	< 2.00	2.00	< 7.93	7.93		"	"	"	"	
75-09-2	Methylene chloride	2.36	2.00	8.19	6.94		"	"	"	"	
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 2.00	2.00	< 15.33	15.33		"	"	"	"	
75-15-0	Carbon disulfide	< 2.00	2.00	< 6.22	6.22		"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 2.00	2.00	< 7.93	7.93		"	"	"	"	
75-34-3	1,1-Dichloroethane	< 2.00	2.00	< 8.10	8.10		"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SG-6	1753-03-01	Air	15-Mar-12 09:53	15-Mar-12
SB45432-01				

Air Quality Analyses

CAS No.	Analyte(s)	Result/Units	*RDL	Result ug/m³	*RDL	Flag	Method Ref.	Analyzed	Analyst	Batch	Cert.
Volatile Organics in Air		ppbv	Prepared 19-Mar-12 Dilution: 4			GS1	Can pressure: -1				
1634-04-4	Methyl tert-butyl ether	< 2.00	2.00	< 7.21	7.21		EPA TO-15	19-Mar-12	KG	1206240	
67-63-0	Isopropyl alcohol	**31.7**	2.00	**77.79**	4.91		"	"	"	"	
78-93-3	2-Butanone (MEK)	**3.48**	2.00	**10.26**	5.90		"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	< 2.00	2.00	< 7.93	7.93		"	"	"	"	
110-54-3	Hexane	**3.96**	2.00	**13.96**	7.05		"	"	"	"	
141-78-6	Ethyl acetate	< 2.00	2.00	< 7.21	7.21		"	"	"	"	
67-66-3	Chloroform	< 2.00	2.00	< 9.73	9.73		"	"	"	"	
109-99-9	Tetrahydrofuran	< 2.00	2.00	< 5.90	5.90		"	"	"	"	
107-06-2	1,2-Dichloroethane	< 2.00	2.00	< 8.10	8.10		"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 2.00	2.00	< 10.91	10.91		"	"	"	"	
71-43-2	Benzene	< 2.00	2.00	< 6.38	6.38		"	"	"	"	
56-23-5	Carbon tetrachloride	< 2.00	2.00	< 12.58	12.58		"	"	"	"	
110-82-7	Cyclohexane	< 2.00	2.00	< 6.88	6.88		"	"	"	"	
78-87-5	1,2-Dichloropropane	< 2.00	2.00	< 9.24	9.24		"	"	"	"	
75-27-4	Bromodichloromethane	< 2.00	2.00	< 13.40	13.40		"	"	"	"	
79-01-6	Trichloroethene	< 2.00	2.00	< 10.75	10.75		"	"	"	"	
123-91-1	1,4-Dioxane	< 2.00	2.00	< 7.20	7.20		"	"	"	"	
142-82-5	n-Heptane	< 2.00	2.00	< 8.20	8.20		"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 2.00	2.00	< 8.20	8.20		"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 2.00	2.00	< 9.08	9.08		"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 2.00	2.00	< 9.08	9.08		"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 2.00	2.00	< 10.91	10.91		"	"	"	"	
108-88-3	Toluene	< 2.00	2.00	< 7.53	7.53		"	"	"	"	
591-78-6	2-Hexanone (MBK)	< 2.00	2.00	< 8.20	8.20		"	"	"	"	
124-48-1	Dibromochloromethane	< 2.00	2.00	< 17.04	17.04		"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 2.00	2.00	< 15.37	15.37		"	"	"	"	
127-18-4	Tetrachloroethene	< 2.00	2.00	< 13.56	13.56		"	"	"	"	
108-90-7	Chlorobenzene	< 2.00	2.00	< 9.21	9.21		"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 2.00	2.00	< 13.74	13.74		"	"	"	"	
100-41-4	Ethylbenzene	< 2.00	2.00	< 8.67	8.67		"	"	"	"	
179601-23-1	m,p-Xylene	< 2.00	2.00	< 8.67	8.67		"	"	"	"	
75-25-2	Bromoform	< 2.00	2.00	< 20.67	20.67		"	"	"	"	
100-42-5	Styrene	< 2.00	2.00	< 8.51	8.51		"	"	"	"	
95-47-6	o-Xylene	< 2.00	2.00	< 8.67	8.67		"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 2.00	2.00	< 13.73	13.73		"	"	"	"	
98-82-8	Isopropylbenzene	< 2.00	2.00	< 9.83	9.83		"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 2.00	2.00	< 9.83	9.83		"	"	"	"	
622-96-8	4-Ethyltoluene	< 2.00	2.00	< 9.83	9.83		"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 2.00	2.00	< 9.83	9.83		"	"	"	"	
91-20-3	Naphthalene	< 2.00	2.00	< 10.47	10.47		"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 2.00	2.00	< 12.02	12.02		"	"	"	"	
100-44-7	Benzyl chloride	< 2.00	2.00	< 10.31	10.31		"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 2.00	2.00	< 12.02	12.02		"	"	"	"	
135-98-8	sec-Butylbenzene	< 2.00	2.00	< 10.98	10.98		"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SG-6 SB45432-01	1753-03-01	Air	15-Mar-12 09:53	15-Mar-12

CAS No.	*Analyte(s)*	*Result/Units*	**RDL*	*Result ug/m³*	**RDL*	*Flag*	*Method Ref.*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Air Quality Analyses											
Volatile Organics in Air		ppbv	Prepared 19-Mar-12 Dilution: 4			GS1	Can pressure: -1				
99-87-6	4-Isopropyltoluene	< 2.00	2.00	< 10.73	10.73		EPA TO-15	19-Mar-12	KG	1206240	
95-50-1	1,2-Dichlorobenzene	< 2.00	2.00	< 12.02	12.02		"	"	"	"	
104-51-8	n-Butylbenzene	< 2.00	2.00	< 10.98	10.98		"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 2.00	2.00	< 14.85	14.85		"	"	"	"	
87-68-3	Hexachlorobutadiene	< 2.00	2.00	< 21.33	21.33		"	"	"	"	
Surrogate recoveries:											
460-00-4	*4-Bromofluorobenzene*	*96*		*70-130 %*			"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SG-7	1753-03-01	Air	15-Mar-12 09:55	15-Mar-12
SB45432-02				

Air Quality Analyses

CAS No.	Analyte(s)	Result/Units	*RDL	Result ug/m³	*RDL	Flag	Method Ref.	Analyzed	Analyst	Batch	Cert.
Volatile Organics in Air		ppbv	Prepared 16-Mar-12 Dilution: 2			GS1	Can pressure: +1 Can ID: 0162				
115-07-1	Propene	< 1.00	1.00	< 1.72	1.72		EPA TO-15	17-Mar-12	KG	1205964	
75-71-8	Dichlorodifluoromethane (Freon12)	< 1.00	1.00	< 4.94	4.94		"	"	"	"	
74-87-3	Chloromethane	< 1.00	1.00	< 2.07	2.07		"	"	"	"	
76-14-2	1,2-Dichlorotetrafluoroethane (Freon 114)	< 1.00	1.00	< 6.99	6.99		"	"	"	"	
75-01-4	Vinyl chloride	< 1.00	1.00	< 2.56	2.56		"	"	"	"	
106-99-0	1,3-Butadiene	< 1.00	1.00	< 2.21	2.21		"	"	"	"	
74-83-9	Bromomethane	< 1.00	1.00	< 3.88	3.88		"	"	"	"	
75-00-3	Chloroethane	< 1.00	1.00	< 2.64	2.64		"	"	"	"	
67-64-1	Acetone	10.8	1.00	25.66	2.38		"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.00	1.00	< 5.62	5.62		"	"	"	"	
64-17-5	Ethanol	260	1.00	490.22	1.89	E	"	"	"	"	
107-13-1	Acrylonitrile	< 1.00	1.00	< 2.17	2.17		"	"	"	"	
75-35-4	1,1-Dichloroethene	< 1.00	1.00	< 3.97	3.97		"	"	"	"	
75-09-2	Methylene chloride	< 1.00	1.00	< 3.47	3.47		"	"	"	"	
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.00	1.00	< 7.66	7.66		"	"	"	"	
75-15-0	Carbon disulfide	< 1.00	1.00	< 3.11	3.11		"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 1.00	1.00	< 3.97	3.97		"	"	"	"	
75-34-3	1,1-Dichloroethane	< 1.00	1.00	< 4.05	4.05		"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 1.00	1.00	< 3.61	3.61		"	"	"	"	
67-63-0	Isopropyl alcohol	42.3	1.00	103.80	2.45		"	"	"	"	
78-93-3	2-Butanone (MEK)	7.06	1.00	20.82	2.95		"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	< 1.00	1.00	< 3.97	3.97		"	"	"	"	
110-54-3	Hexane	2.92	1.00	10.29	3.53		"	"	"	"	
141-78-6	Ethyl acetate	< 1.00	1.00	< 3.60	3.60		"	"	"	"	
67-66-3	Chloroform	< 1.00	1.00	< 4.87	4.87		"	"	"	"	
109-99-9	Tetrahydrofuran	1.86	1.00	5.48	2.95		"	"	"	"	
107-06-2	1,2-Dichloroethane	< 1.00	1.00	< 4.05	4.05		"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.00	1.00	< 5.46	5.46		"	"	"	"	
71-43-2	Benzene	< 1.00	1.00	< 3.19	3.19		"	"	"	"	
56-23-5	Carbon tetrachloride	< 1.00	1.00	< 6.29	6.29		"	"	"	"	
110-82-7	Cyclohexane	< 1.00	1.00	< 3.44	3.44		"	"	"	"	
78-87-5	1,2-Dichloropropane	< 1.00	1.00	< 4.62	4.62		"	"	"	"	
75-27-4	Bromodichloromethane	< 1.00	1.00	< 6.70	6.70		"	"	"	"	
79-01-6	Trichloroethene	< 1.00	1.00	< 5.37	5.37		"	"	"	"	
123-91-1	1,4-Dioxane	< 1.00	1.00	< 3.60	3.60		"	"	"	"	
142-82-5	n-Heptane	< 1.00	1.00	< 4.10	4.10		"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 1.00	1.00	< 4.10	4.10		"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 1.00	1.00	< 4.54	4.54		"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 1.00	1.00	< 4.54	4.54		"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 1.00	1.00	< 5.46	5.46		"	"	"	"	
108-88-3	Toluene	1.90	1.00	7.15	3.76		"	"	"	"	
591-78-6	2-Hexanone (MBK)	< 1.00	1.00	< 4.10	4.10		"	"	"	"	
124-48-1	Dibromochloromethane	< 1.00	1.00	< 8.52	8.52		"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 1.00	1.00	< 7.69	7.69		"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SG-7	1753-03-01	Air	15-Mar-12 09:55	15-Mar-12
SB45432-02				

CAS No.	Analyte(s)	Result/Units	*RDL	Result ug/m³	*RDL	Flag	Method Ref.	Analyzed	Analyst	Batch	Cert.
Air Quality Analyses											
Volatile Organics in Air		ppbv	Prepared 16-Mar-12 Dilution: 2			GS1	Can pressure: +1 Can ID: 0162				
127-18-4	Tetrachloroethene	< 1.00	1.00	< 6.78	6.78		EPA TO-15	17-Mar-12	KG	1205964	
108-90-7	Chlorobenzene	< 1.00	1.00	< 4.61	4.61		"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 1.00	1.00	< 6.87	6.87		"	"	"	"	
100-41-4	Ethylbenzene	< 1.00	1.00	< 4.34	4.34		"	"	"	"	
179601-23-1	m,p-Xylene	< 1.00	1.00	< 4.34	4.34		"	"	"	"	
75-25-2	Bromoform	< 1.00	1.00	< 10.34	10.34		"	"	"	"	
100-42-5	Styrene	< 1.00	1.00	< 4.25	4.25		"	"	"	"	
95-47-6	o-Xylene	< 1.00	1.00	< 4.34	4.34		"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 1.00	1.00	< 6.87	6.87		"	"	"	"	
98-82-8	Isopropylbenzene	< 1.00	1.00	< 4.92	4.92		"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 1.00	1.00	< 4.92	4.92		"	"	"	"	
622-96-8	4-Ethyltoluene	< 1.00	1.00	< 4.92	4.92		"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 1.00	1.00	< 4.92	4.92		"	"	"	"	
91-20-3	Naphthalene	< 1.00	1.00	< 5.24	5.24		"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 1.00	1.00	< 6.01	6.01		"	"	"	"	
100-44-7	Benzyl chloride	< 1.00	1.00	< 5.15	5.15		"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 1.00	1.00	< 6.01	6.01		"	"	"	"	
135-98-8	sec-Butylbenzene	< 1.00	1.00	< 5.49	5.49		"	"	"	"	
99-87-6	4-Isopropyltoluene	< 1.00	1.00	< 5.37	5.37		"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 1.00	1.00	< 6.01	6.01		"	"	"	"	
104-51-8	n-Butylbenzene	< 1.00	1.00	< 5.49	5.49		"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 1.00	1.00	< 7.42	7.42		"	"	"	"	
87-68-3	Hexachlorobutadiene	< 1.00	1.00	< 10.66	10.66		"	"	"	"	
Surrogate recoveries:											
460-00-4	*4-Bromofluorobenzene*	*98*		*70-130 %*			"	"	"	"	
Re-analysis of Volatile Organics in Air			Dilution: 4			GS1					
115-07-1	Propene	< 2.00	2.00	< 3.44	3.44		EPA TO-15	19-Mar-12	KG	1206240	
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.00	2.00	< 9.89	9.89		"	"	"	"	
74-87-3	Chloromethane	< 2.00	2.00	< 4.13	4.13		"	"	"	"	
76-14-2	1,2-Dichlorotetrafluoroethane (Freon 114)	< 2.00	2.00	< 13.98	13.98		"	"	"	"	
75-01-4	Vinyl chloride	< 2.00	2.00	< 5.11	5.11		"	"	"	"	
106-99-0	1,3-Butadiene	< 2.00	2.00	< 4.42	4.42		"	"	"	"	
74-83-9	Bromomethane	< 2.00	2.00	< 7.76	7.76		"	"	"	"	
75-00-3	Chloroethane	< 2.00	2.00	< 5.28	5.28		"	"	"	"	
67-64-1	Acetone	10.2	2.00	24.24	4.75		"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 2.00	2.00	< 11.24	11.24		"	"	"	"	
64-17-5	Ethanol	234	2.00	441.20	3.77		"	"	"	"	
107-13-1	Acrylonitrile	< 2.00	2.00	< 4.34	4.34		"	"	"	"	
75-35-4	1,1-Dichloroethene	< 2.00	2.00	< 7.93	7.93		"	"	"	"	
75-09-2	Methylene chloride	< 2.00	2.00	< 6.94	6.94		"	"	"	"	
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 2.00	2.00	< 15.33	15.33		"	"	"	"	
75-15-0	Carbon disulfide	< 2.00	2.00	< 6.22	6.22		"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 2.00	2.00	< 7.93	7.93		"	"	"	"	
75-34-3	1,1-Dichloroethane	< 2.00	2.00	< 8.10	8.10		"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SG-7	1753-03-01	Air	15-Mar-12 09:55	15-Mar-12
SB45432-02				

Air Quality Analyses

Volatile Organics in Air — ppbv — Prepared 19-Mar-12 — Dilution: 4 — GS1 — Can pressure: +1

CAS No.	Analyte(s)	Result/Units	*RDL	Result ug/m³	*RDL	Flag	Method Ref.	Analyzed	Analyst	Batch	Cert.
1634-04-4	Methyl tert-butyl ether	< 2.00	2.00	< 7.21	7.21		EPA TO-15	19-Mar-12	KG	1206240	
67-63-0	Isopropyl alcohol	**39.3**	2.00	**96.44**	4.91		"	"	"	"	
78-93-3	2-Butanone (MEK)	**6.08**	2.00	**17.93**	5.90		"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	< 2.00	2.00	< 7.93	7.93		"	"	"	"	
110-54-3	Hexane	**2.64**	2.00	**9.31**	7.05		"	"	"	"	
141-78-6	Ethyl acetate	< 2.00	2.00	< 7.21	7.21		"	"	"	"	
67-66-3	Chloroform	< 2.00	2.00	< 9.73	9.73		"	"	"	"	
109-99-9	Tetrahydrofuran	< 2.00	2.00	< 5.90	5.90		"	"	"	"	
107-06-2	1,2-Dichloroethane	< 2.00	2.00	< 8.10	8.10		"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 2.00	2.00	< 10.91	10.91		"	"	"	"	
71-43-2	Benzene	< 2.00	2.00	< 6.38	6.38		"	"	"	"	
56-23-5	Carbon tetrachloride	< 2.00	2.00	< 12.58	12.58		"	"	"	"	
110-82-7	Cyclohexane	< 2.00	2.00	< 6.88	6.88		"	"	"	"	
78-87-5	1,2-Dichloropropane	< 2.00	2.00	< 9.24	9.24		"	"	"	"	
75-27-4	Bromodichloromethane	< 2.00	2.00	< 13.40	13.40		"	"	"	"	
79-01-6	Trichloroethene	< 2.00	2.00	< 10.75	10.75		"	"	"	"	
123-91-1	1,4-Dioxane	< 2.00	2.00	< 7.20	7.20		"	"	"	"	
142-82-5	n-Heptane	< 2.00	2.00	< 8.20	8.20		"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 2.00	2.00	< 8.20	8.20		"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 2.00	2.00	< 9.08	9.08		"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 2.00	2.00	< 9.08	9.08		"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 2.00	2.00	< 10.91	10.91		"	"	"	"	
108-88-3	Toluene	< 2.00	2.00	< 7.53	7.53		"	"	"	"	
591-78-6	2-Hexanone (MBK)	< 2.00	2.00	< 8.20	8.20		"	"	"	"	
124-48-1	Dibromochloromethane	< 2.00	2.00	< 17.04	17.04		"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 2.00	2.00	< 15.37	15.37		"	"	"	"	
127-18-4	Tetrachloroethene	< 2.00	2.00	< 13.56	13.56		"	"	"	"	
108-90-7	Chlorobenzene	< 2.00	2.00	< 9.21	9.21		"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 2.00	2.00	< 13.74	13.74		"	"	"	"	
100-41-4	Ethylbenzene	< 2.00	2.00	< 8.67	8.67		"	"	"	"	
179601-23-1	m,p-Xylene	< 2.00	2.00	< 8.67	8.67		"	"	"	"	
75-25-2	Bromoform	< 2.00	2.00	< 20.67	20.67		"	"	"	"	
100-42-5	Styrene	< 2.00	2.00	< 8.51	8.51		"	"	"	"	
95-47-6	o-Xylene	< 2.00	2.00	< 8.67	8.67		"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 2.00	2.00	< 13.73	13.73		"	"	"	"	
98-82-8	Isopropylbenzene	< 2.00	2.00	< 9.83	9.83		"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 2.00	2.00	< 9.83	9.83		"	"	"	"	
622-96-8	4-Ethyltoluene	< 2.00	2.00	< 9.83	9.83		"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 2.00	2.00	< 9.83	9.83		"	"	"	"	
91-20-3	Naphthalene	< 2.00	2.00	< 10.47	10.47		"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 2.00	2.00	< 12.02	12.02		"	"	"	"	
100-44-7	Benzyl chloride	< 2.00	2.00	< 10.31	10.31		"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 2.00	2.00	< 12.02	12.02		"	"	"	"	
135-98-8	sec-Butylbenzene	< 2.00	2.00	< 10.98	10.98		"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SG-7	1753-03-01	Air	15-Mar-12 09:55	15-Mar-12
SB45432-02				

CAS No.	*Analyte(s)*	*Result/Units*	**RDL*	*Result ug/m³*	**RDL*	*Flag*	*Method Ref.*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Air Quality Analyses											
Volatile Organics in Air		ppbv	Prepared 19-Mar-12 Dilution: 4			GS1	Can pressure: +1				
99-87-6	4-Isopropyltoluene	< 2.00	2.00	< 10.73	10.73		EPA TO-15	19-Mar-12	KG	1206240	
95-50-1	1,2-Dichlorobenzene	< 2.00	2.00	< 12.02	12.02		"	"	"	"	
104-51-8	n-Butylbenzene	< 2.00	2.00	< 10.98	10.98		"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 2.00	2.00	< 14.85	14.85		"	"	"	"	
87-68-3	Hexachlorobutadiene	< 2.00	2.00	< 21.33	21.33		"	"	"	"	
Surrogate recoveries:											
460-00-4	*4-Bromofluorobenzene*	*96*		*70-130 %*			"	"	"	"	

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1205964 - General Air Prep										
Blank (1205964-BLK1)						Prepared & Analyzed: 16-Mar-12				
Propene	< 0.500		ppbv	0.500						
Dichlorodifluoromethane (Freon12)	< 0.500		ppbv	0.500						
Chloromethane	< 0.500		ppbv	0.500						
1,2-Dichlorotetrafluoroethane (Freon 114)	< 0.500		ppbv	0.500						
Vinyl chloride	< 0.500		ppbv	0.500						
1,3-Butadiene	< 0.500		ppbv	0.500						
Bromomethane	< 0.500		ppbv	0.500						
Chloroethane	< 0.500		ppbv	0.500						
Acetone	< 0.500		ppbv	0.500						
Trichlorofluoromethane (Freon 11)	< 0.500		ppbv	0.500						
Ethanol	< 0.500		ppbv	0.500						
Acrylonitrile	< 0.500		ppbv	0.500						
1,1-Dichloroethene	< 0.500		ppbv	0.500						
Methylene chloride	< 0.500		ppbv	0.500						
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 0.500		ppbv	0.500						
Carbon disulfide	< 0.500		ppbv	0.500						
trans-1,2-Dichloroethene	< 0.500		ppbv	0.500						
1,1-Dichloroethane	< 0.500		ppbv	0.500						
Methyl tert-butyl ether	< 0.500		ppbv	0.500						
Isopropyl alcohol	< 0.500		ppbv	0.500						
2-Butanone (MEK)	< 0.500		ppbv	0.500						
cis-1,2-Dichloroethene	< 0.500		ppbv	0.500						
Hexane	< 0.500		ppbv	0.500						
Ethyl acetate	< 0.500		ppbv	0.500						
Chloroform	< 0.500		ppbv	0.500						
Tetrahydrofuran	< 0.500		ppbv	0.500						
1,2-Dichloroethane	< 0.500		ppbv	0.500						
1,1,1-Trichloroethane	< 0.500		ppbv	0.500						
Benzene	< 0.500		ppbv	0.500						
Carbon tetrachloride	< 0.500		ppbv	0.500						
Cyclohexane	< 0.500		ppbv	0.500						
1,2-Dichloropropane	< 0.500		ppbv	0.500						
Bromodichloromethane	< 0.500		ppbv	0.500						
Trichloroethene	< 0.500		ppbv	0.500						
1,4-Dioxane	< 0.500		ppbv	0.500						
n-Heptane	< 0.500		ppbv	0.500						
4-Methyl-2-pentanone (MIBK)	< 0.500		ppbv	0.500						
cis-1,3-Dichloropropene	< 0.500		ppbv	0.500						
trans-1,3-Dichloropropene	< 0.500		ppbv	0.500						
1,1,2-Trichloroethane	< 0.500		ppbv	0.500						
Toluene	< 0.500		ppbv	0.500						
2-Hexanone (MBK)	< 0.500		ppbv	0.500						
Dibromochloromethane	< 0.500		ppbv	0.500						
1,2-Dibromoethane (EDB)	< 0.500		ppbv	0.500						
Tetrachloroethene	< 0.500		ppbv	0.500						
Chlorobenzene	< 0.500		ppbv	0.500						
1,1,1,2-Tetrachloroethane	< 0.500		ppbv	0.500						
Ethylbenzene	< 0.500		ppbv	0.500						
m,p-Xylene	< 0.500		ppbv	0.500						
Bromoform	< 0.500		ppbv	0.500						
Styrene	< 0.500		ppbv	0.500						
o-Xylene	< 0.500		ppbv	0.500						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1205964 - General Air Prep										
Blank (1205964-BLK1)						Prepared & Analyzed: 16-Mar-12				
1,1,2,2-Tetrachloroethane	< 0.500		ppbv	0.500						
Isopropylbenzene	< 0.500		ppbv	0.500						
1,3,5-Trimethylbenzene	< 0.500		ppbv	0.500						
4-Ethyltoluene	< 0.500		ppbv	0.500						
1,2,4-Trimethylbenzene	< 0.500		ppbv	0.500						
Naphthalene	< 0.500		ppbv	0.500						
1,3-Dichlorobenzene	< 0.500		ppbv	0.500						
Benzyl chloride	< 0.500		ppbv	0.500						
1,4-Dichlorobenzene	< 0.500		ppbv	0.500						
sec-Butylbenzene	< 0.500		ppbv	0.500						
4-Isopropyltoluene	< 0.500		ppbv	0.500						
1,2-Dichlorobenzene	< 0.500		ppbv	0.500						
n-Butylbenzene	< 0.500		ppbv	0.500						
1,2,4-Trichlorobenzene	< 0.500		ppbv	0.500						
Hexachlorobutadiene	< 0.500		ppbv	0.500						
Surrogate: 4-Bromofluorobenzene	*9.50*		ppbv		*10.0*		*95*	*70-130*		
LCS (1205964-BS1)						Prepared & Analyzed: 16-Mar-12				
Propene	**7.18**		ppbv		10.0		72	70-130		
Dichlorodifluoromethane (Freon12)	**7.94**		ppbv		10.0		79	70-130		
Chloromethane	**8.04**		ppbv		10.0		80	70-130		
1,2-Dichlorotetrafluoroethane (Freon 114)	**8.12**		ppbv		10.0		81	70-130		
Vinyl chloride	**7.73**		ppbv		10.0		77	70-130		
1,3-Butadiene	**8.06**		ppbv		10.0		81	70-130		
Bromomethane	**8.05**		ppbv		10.0		80	70-130		
Chloroethane	**8.23**		ppbv		10.0		82	70-130		
Acetone	**8.15**		ppbv		10.0		82	70-130		
Trichlorofluoromethane (Freon 11)	**8.82**		ppbv		10.0		88	70-130		
Ethanol	**8.66**		ppbv		10.0		87	70-130		
Acrylonitrile	**8.47**		ppbv		10.0		85	60-160		
1,1-Dichloroethene	**10.4**		ppbv		10.0		104	70-130		
Methylene chloride	**11.1**		ppbv		10.0		111	70-130		
1,1,2-Trichlorotrifluoroethane (Freon 113)	**8.77**		ppbv		10.0		88	70-130		
Carbon disulfide	**8.61**		ppbv		10.0		86	70-130		
trans-1,2-Dichloroethene	**8.01**		ppbv		10.0		80	70-130		
1,1-Dichloroethane	**8.04**		ppbv		10.0		80	70-130		
Methyl tert-butyl ether	**8.08**		ppbv		10.0		81	70-130		
Isopropyl alcohol	**8.23**		ppbv		10.0		82	70-130		
2-Butanone (MEK)	**7.90**		ppbv		10.0		79	70-130		
cis-1,2-Dichloroethene	**7.96**		ppbv		10.0		80	70-130		
Hexane	**8.10**		ppbv		10.0		81	70-130		
Ethyl acetate	**8.30**		ppbv		10.0		83	70-130		
Chloroform	**8.07**		ppbv		10.0		81	70-130		
Tetrahydrofuran	**7.95**		ppbv		10.0		80	70-130		
1,2-Dichloroethane	**8.08**		ppbv		10.0		81	70-130		
1,1,1-Trichloroethane	**8.32**		ppbv		10.0		83	70-130		
Benzene	**7.93**		ppbv		10.0		79	70-130		
Carbon tetrachloride	**8.44**		ppbv		10.0		84	70-130		
Cyclohexane	**8.04**		ppbv		10.0		80	70-130		
1,2-Dichloropropane	**8.07**		ppbv		10.0		81	70-130		
Bromodichloromethane	**8.35**		ppbv		10.0		84	70-130		
Trichloroethene	**8.30**		ppbv		10.0		83	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1205964 - General Air Prep										
LCS (1205964-BS1)					Prepared & Analyzed: 16-Mar-12					
1,4-Dioxane	**8.69**		ppbv		10.0		87	60-160		
n-Heptane	**8.29**		ppbv		10.0		83	70-130		
4-Methyl-2-pentanone (MIBK)	**8.21**		ppbv		10.0		82	70-130		
cis-1,3-Dichloropropene	**8.15**		ppbv		10.0		82	70-130		
trans-1,3-Dichloropropene	**8.02**		ppbv		10.0		80	70-130		
1,1,2-Trichloroethane	**8.03**		ppbv		10.0		80	70-130		
Toluene	**8.19**		ppbv		10.0		82	70-130		
2-Hexanone (MBK)	**7.86**		ppbv		10.0		79	70-130		
Dibromochloromethane	**8.31**		ppbv		10.0		83	70-130		
1,2-Dibromoethane (EDB)	**7.98**		ppbv		10.0		80	70-130		
Tetrachloroethene	**8.27**		ppbv		10.0		83	70-130		
Chlorobenzene	**8.16**		ppbv		10.0		82	70-130		
1,1,1,2-Tetrachloroethane	**8.66**		ppbv		10.0		87	60-160		
Ethylbenzene	**8.38**		ppbv		10.0		84	70-130		
m,p-Xylene	**16.6**		ppbv		20.0		83	70-130		
Bromoform	**8.30**		ppbv		10.0		83	70-130		
Styrene	**8.37**		ppbv		10.0		84	70-130		
o-Xylene	**8.35**		ppbv		10.0		84	70-130		
1,1,2,2-Tetrachloroethane	**8.27**		ppbv		10.0		83	70-130		
Isopropylbenzene	**8.28**		ppbv		10.0		83	60-160		
1,3,5-Trimethylbenzene	**8.64**		ppbv		10.0		86	70-130		
4-Ethyltoluene	**8.68**		ppbv		10.0		87	70-130		
1,2,4-Trimethylbenzene	**8.73**		ppbv		10.0		87	70-130		
Naphthalene	**7.07**		ppbv		10.0		71	70-160		
1,3-Dichlorobenzene	**8.60**		ppbv		10.0		86	70-130		
Benzyl chloride	**8.59**		ppbv		10.0		86	70-130		
1,4-Dichlorobenzene	**8.59**		ppbv		10.0		86	70-130		
sec-Butylbenzene	**8.26**		ppbv		10.0		83	60-160		
4-Isopropyltoluene	**8.41**		ppbv		10.0		84	60-160		
1,2-Dichlorobenzene	**8.60**		ppbv		10.0		86	70-130		
n-Butylbenzene	**8.38**		ppbv		10.0		84	60-160		
1,2,4-Trichlorobenzene	**8.16**		ppbv		10.0		82	70-130		
Hexachlorobutadiene	**8.71**		ppbv		10.0		87	70-130		
Surrogate: 4-Bromofluorobenzene	*9.95*		ppbv		*10.0*		*100*	*70-130*		
Batch 1206240 - General Air Prep										
Blank (1206240-BLK1)					Prepared & Analyzed: 19-Mar-12					
Propene	< 0.500		ppbv	0.500						
Dichlorodifluoromethane (Freon12)	< 0.500		ppbv	0.500						
Chloromethane	< 0.500		ppbv	0.500						
1,2-Dichlorotetrafluoroethane (Freon 114)	< 0.500		ppbv	0.500						
Vinyl chloride	< 0.500		ppbv	0.500						
1,3-Butadiene	< 0.500		ppbv	0.500						
Bromomethane	< 0.500		ppbv	0.500						
Chloroethane	< 0.500		ppbv	0.500						
Acetone	< 0.500		ppbv	0.500						
Trichlorofluoromethane (Freon 11)	< 0.500		ppbv	0.500						
Ethanol	< 0.500		ppbv	0.500						
Acrylonitrile	< 0.500		ppbv	0.500						
1,1-Dichloroethene	< 0.500		ppbv	0.500						
Methylene chloride	< 0.500		ppbv	0.500						
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 0.500		ppbv	0.500						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1206240 - General Air Prep										
Blank (1206240-BLK1)						Prepared & Analyzed: 19-Mar-12				
Carbon disulfide	< 0.500		ppbv	0.500						
trans-1,2-Dichloroethene	< 0.500		ppbv	0.500						
1,1-Dichloroethane	< 0.500		ppbv	0.500						
Methyl tert-butyl ether	< 0.500		ppbv	0.500						
Isopropyl alcohol	< 0.500		ppbv	0.500						
2-Butanone (MEK)	< 0.500		ppbv	0.500						
cis-1,2-Dichloroethene	< 0.500		ppbv	0.500						
Hexane	< 0.500		ppbv	0.500						
Ethyl acetate	< 0.500		ppbv	0.500						
Chloroform	< 0.500		ppbv	0.500						
Tetrahydrofuran	< 0.500		ppbv	0.500						
1,2-Dichloroethane	< 0.500		ppbv	0.500						
1,1,1-Trichloroethane	< 0.500		ppbv	0.500						
Benzene	< 0.500		ppbv	0.500						
Carbon tetrachloride	< 0.500		ppbv	0.500						
Cyclohexane	< 0.500		ppbv	0.500						
1,2-Dichloropropane	< 0.500		ppbv	0.500						
Bromodichloromethane	< 0.500		ppbv	0.500						
Trichloroethene	< 0.500		ppbv	0.500						
1,4-Dioxane	< 0.500		ppbv	0.500						
n-Heptane	< 0.500		ppbv	0.500						
4-Methyl-2-pentanone (MIBK)	< 0.500		ppbv	0.500						
cis-1,3-Dichloropropene	< 0.500		ppbv	0.500						
trans-1,3-Dichloropropene	< 0.500		ppbv	0.500						
1,1,2-Trichloroethane	< 0.500		ppbv	0.500						
Toluene	< 0.500		ppbv	0.500						
2-Hexanone (MBK)	< 0.500		ppbv	0.500						
Dibromochloromethane	< 0.500		ppbv	0.500						
1,2-Dibromoethane (EDB)	< 0.500		ppbv	0.500						
Tetrachloroethene	< 0.500		ppbv	0.500						
Chlorobenzene	< 0.500		ppbv	0.500						
1,1,1,2-Tetrachloroethane	< 0.500		ppbv	0.500						
Ethylbenzene	< 0.500		ppbv	0.500						
m,p-Xylene	< 0.500		ppbv	0.500						
Bromoform	< 0.500		ppbv	0.500						
Styrene	< 0.500		ppbv	0.500						
o-Xylene	< 0.500		ppbv	0.500						
1,1,2,2-Tetrachloroethane	< 0.500		ppbv	0.500						
Isopropylbenzene	< 0.500		ppbv	0.500						
1,3,5-Trimethylbenzene	< 0.500		ppbv	0.500						
4-Ethyltoluene	< 0.500		ppbv	0.500						
1,2,4-Trimethylbenzene	< 0.500		ppbv	0.500						
Naphthalene	< 0.500		ppbv	0.500						
1,3-Dichlorobenzene	< 0.500		ppbv	0.500						
Benzyl chloride	< 0.500		ppbv	0.500						
1,4-Dichlorobenzene	< 0.500		ppbv	0.500						
sec-Butylbenzene	< 0.500		ppbv	0.500						
4-Isopropyltoluene	< 0.500		ppbv	0.500						
1,2-Dichlorobenzene	< 0.500		ppbv	0.500						
n-Butylbenzene	< 0.500		ppbv	0.500						
1,2,4-Trichlorobenzene	< 0.500		ppbv	0.500						
Hexachlorobutadiene	< 0.500		ppbv	0.500						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1206240 - General Air Prep										
Blank (1206240-BLK1)						Prepared & Analyzed: 19-Mar-12				
Surrogate: 4-Bromofluorobenzene	*9.51*		ppbv		*10.0*		*95*	*70-130*		
LCS (1206240-BS1)						Prepared & Analyzed: 19-Mar-12				
Propene	**7.08**		ppbv		10.0		71	70-130		
Dichlorodifluoromethane (Freon12)	**8.07**		ppbv		10.0		81	70-130		
Chloromethane	**7.67**		ppbv		10.0		77	70-130		
1,2-Dichlorotetrafluoroethane (Freon 114)	**8.04**		ppbv		10.0		80	70-130		
Vinyl chloride	**7.69**		ppbv		10.0		77	70-130		
1,3-Butadiene	**7.76**		ppbv		10.0		78	70-130		
Bromomethane	**7.97**		ppbv		10.0		80	70-130		
Chloroethane	**8.04**		ppbv		10.0		80	70-130		
Acetone	**8.21**		ppbv		10.0		82	70-130		
Trichlorofluoromethane (Freon 11)	**9.01**		ppbv		10.0		90	70-130		
Ethanol	**9.44**		ppbv		10.0		94	70-130		
Acrylonitrile	**9.65**		ppbv		10.0		96	60-160		
1,1-Dichloroethene	**8.64**		ppbv		10.0		86	70-130		
Methylene chloride	**10.8**		ppbv		10.0		108	70-130		
1,1,2-Trichlorotrifluoroethane (Freon 113)	**8.73**		ppbv		10.0		87	70-130		
Carbon disulfide	**8.54**		ppbv		10.0		85	70-130		
trans-1,2-Dichloroethene	**7.97**		ppbv		10.0		80	70-130		
1,1-Dichloroethane	**8.03**		ppbv		10.0		80	70-130		
Methyl tert-butyl ether	**8.15**		ppbv		10.0		82	70-130		
Isopropyl alcohol	**8.61**		ppbv		10.0		86	70-130		
2-Butanone (MEK)	**7.84**		ppbv		10.0		78	70-130		
cis-1,2-Dichloroethene	**7.95**		ppbv		10.0		80	70-130		
Hexane	**7.99**		ppbv		10.0		80	70-130		
Ethyl acetate	**8.22**		ppbv		10.0		82	70-130		
Chloroform	**8.09**		ppbv		10.0		81	70-130		
Tetrahydrofuran	**7.91**		ppbv		10.0		79	70-130		
1,2-Dichloroethane	**8.13**		ppbv		10.0		81	70-130		
1,1,1-Trichloroethane	**8.40**		ppbv		10.0		84	70-130		
Benzene	**7.95**		ppbv		10.0		80	70-130		
Carbon tetrachloride	**8.61**		ppbv		10.0		86	70-130		
Cyclohexane	**7.93**		ppbv		10.0		79	70-130		
1,2-Dichloropropane	**8.03**		ppbv		10.0		80	70-130		
Bromodichloromethane	**8.42**		ppbv		10.0		84	70-130		
Trichloroethene	**8.23**		ppbv		10.0		82	70-130		
1,4-Dioxane	**7.39**		ppbv		10.0		74	60-160		
n-Heptane	**8.17**		ppbv		10.0		82	70-130		
4-Methyl-2-pentanone (MIBK)	**8.17**		ppbv		10.0		82	70-130		
cis-1,3-Dichloropropene	**8.28**		ppbv		10.0		83	70-130		
trans-1,3-Dichloropropene	**8.24**		ppbv		10.0		82	70-130		
1,1,2-Trichloroethane	**8.00**		ppbv		10.0		80	70-130		
Toluene	**8.21**		ppbv		10.0		82	70-130		
2-Hexanone (MBK)	**7.95**		ppbv		10.0		80	70-130		
Dibromochloromethane	**8.43**		ppbv		10.0		84	70-130		
1,2-Dibromoethane (EDB)	**8.06**		ppbv		10.0		81	70-130		
Tetrachloroethene	**8.32**		ppbv		10.0		83	70-130		
Chlorobenzene	**8.24**		ppbv		10.0		82	70-130		
1,1,1,2-Tetrachloroethane	**8.76**		ppbv		10.0		88	60-160		
Ethylbenzene	**8.44**		ppbv		10.0		84	70-130		
m,p-Xylene	**16.8**		ppbv		20.0		84	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1206240 - General Air Prep										
LCS (1206240-BS1)					Prepared & Analyzed: 19-Mar-12					
Bromoform	**8.36**		ppbv		10.0		84	70-130		
Styrene	**8.49**		ppbv		10.0		85	70-130		
o-Xylene	**8.47**		ppbv		10.0		85	70-130		
1,1,2,2-Tetrachloroethane	**8.40**		ppbv		10.0		84	70-130		
Isopropylbenzene	**8.43**		ppbv		10.0		84	60-160		
1,3,5-Trimethylbenzene	**8.81**		ppbv		10.0		88	70-130		
4-Ethyltoluene	**8.78**		ppbv		10.0		88	70-130		
1,2,4-Trimethylbenzene	**8.91**		ppbv		10.0		89	70-130		
Naphthalene	**8.80**		ppbv		10.0		88	70-160		
1,3-Dichlorobenzene	**8.90**		ppbv		10.0		89	70-130		
Benzyl chloride	**9.17**		ppbv		10.0		92	70-130		
1,4-Dichlorobenzene	**8.97**		ppbv		10.0		90	70-130		
sec-Butylbenzene	**8.50**		ppbv		10.0		85	60-160		
4-Isopropyltoluene	**8.69**		ppbv		10.0		87	60-160		
1,2-Dichlorobenzene	**8.88**		ppbv		10.0		89	70-130		
n-Butylbenzene	**8.66**		ppbv		10.0		87	60-160		
1,2,4-Trichlorobenzene	**9.80**		ppbv		10.0		98	70-130		
Hexachlorobutadiene	**9.89**		ppbv		10.0		99	70-130		
Surrogate: 4-Bromofluorobenzene	*10.0*		ppbv		*10.0*		*100*	*70-130*		
Duplicate (1206240-DUP1)			**Source: SB45432-01RE1**		Prepared & Analyzed: 19-Mar-12					
Propene	< 2.00		ppbv	2.00		BRL				30
Dichlorodifluoromethane (Freon12)	< 2.00		ppbv	2.00		BRL				30
Chloromethane	< 2.00		ppbv	2.00		BRL				30
1,2-Dichlorotetrafluoroethane (Freon 114)	< 2.00		ppbv	2.00		BRL				30
Vinyl chloride	< 2.00		ppbv	2.00		BRL				30
1,3-Butadiene	< 2.00		ppbv	2.00		BRL				30
Bromomethane	< 2.00		ppbv	2.00		BRL				30
Chloroethane	< 2.00		ppbv	2.00		BRL				30
Acetone	**12.4**		ppbv	2.00		12.6			1	30
Trichlorofluoromethane (Freon 11)	< 2.00		ppbv	2.00		BRL				30
Ethanol	**220**		ppbv	2.00		213			3	30
Acrylonitrile	< 2.00		ppbv	2.00		BRL				30
1,1-Dichloroethene	< 2.00		ppbv	2.00		BRL				30
Methylene chloride	**1.88**	J	ppbv	2.00		2.36			23	30
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 2.00		ppbv	2.00		BRL				30
Carbon disulfide	< 2.00		ppbv	2.00		BRL				30
trans-1,2-Dichloroethene	< 2.00		ppbv	2.00		BRL				30
1,1-Dichloroethane	< 2.00		ppbv	2.00		BRL				30
Methyl tert-butyl ether	< 2.00		ppbv	2.00		BRL				30
Isopropyl alcohol	**32.8**		ppbv	2.00		31.7			3	30
2-Butanone (MEK)	**3.36**		ppbv	2.00		3.48			4	30
cis-1,2-Dichloroethene	< 2.00		ppbv	2.00		BRL				30
Hexane	**3.92**		ppbv	2.00		3.96			1	30
Ethyl acetate	< 2.00		ppbv	2.00		BRL				30
Chloroform	< 2.00		ppbv	2.00		BRL				30
Tetrahydrofuran	< 2.00		ppbv	2.00		BRL				30
1,2-Dichloroethane	< 2.00		ppbv	2.00		BRL				30
1,1,1-Trichloroethane	< 2.00		ppbv	2.00		BRL				30
Benzene	< 2.00		ppbv	2.00		BRL				30
Carbon tetrachloride	< 2.00		ppbv	2.00		BRL				30
Cyclohexane	< 2.00		ppbv	2.00		BRL				30

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1206240 - General Air Prep										
Duplicate (1206240-DUP1)			**Source: SB45432-01RE1**		Prepared & Analyzed: 19-Mar-12					
1,2-Dichloropropane	< 2.00		ppbv	2.00		BRL				30
Bromodichloromethane	< 2.00		ppbv	2.00		BRL				30
Trichloroethene	< 2.00		ppbv	2.00		BRL				30
1,4-Dioxane	< 2.00		ppbv	2.00		BRL				30
n-Heptane	< 2.00		ppbv	2.00		BRL				30
4-Methyl-2-pentanone (MIBK)	< 2.00		ppbv	2.00		BRL				30
cis-1,3-Dichloropropene	< 2.00		ppbv	2.00		BRL				30
trans-1,3-Dichloropropene	< 2.00		ppbv	2.00		BRL				30
1,1,2-Trichloroethane	< 2.00		ppbv	2.00		BRL				30
Toluene	< 2.00		ppbv	2.00		BRL				30
2-Hexanone (MBK)	< 2.00		ppbv	2.00		BRL				30
Dibromochloromethane	< 2.00		ppbv	2.00		BRL				30
1,2-Dibromoethane (EDB)	< 2.00		ppbv	2.00		BRL				30
Tetrachloroethene	< 2.00		ppbv	2.00		BRL				30
Chlorobenzene	< 2.00		ppbv	2.00		BRL				30
1,1,1,2-Tetrachloroethane	< 2.00		ppbv	2.00		BRL				30
Ethylbenzene	< 2.00		ppbv	2.00		BRL				30
m,p-Xylene	< 2.00		ppbv	2.00		BRL				30
Bromoform	< 2.00		ppbv	2.00		BRL				30
Styrene	< 2.00		ppbv	2.00		BRL				30
o-Xylene	< 2.00		ppbv	2.00		BRL				30
1,1,2,2-Tetrachloroethane	< 2.00		ppbv	2.00		BRL				30
Isopropylbenzene	< 2.00		ppbv	2.00		BRL				30
1,3,5-Trimethylbenzene	< 2.00		ppbv	2.00		BRL				30
4-Ethyltoluene	< 2.00		ppbv	2.00		BRL				30
1,2,4-Trimethylbenzene	< 2.00		ppbv	2.00		BRL				30
Naphthalene	< 2.00		ppbv	2.00		BRL				30
1,3-Dichlorobenzene	< 2.00		ppbv	2.00		BRL				30
Benzyl chloride	< 2.00		ppbv	2.00		BRL				30
1,4-Dichlorobenzene	< 2.00		ppbv	2.00		BRL				30
sec-Butylbenzene	< 2.00		ppbv	2.00		BRL				30
4-Isopropyltoluene	< 2.00		ppbv	2.00		BRL				30
1,2-Dichlorobenzene	< 2.00		ppbv	2.00		BRL				30
n-Butylbenzene	< 2.00		ppbv	2.00		BRL				30
1,2,4-Trichlorobenzene	< 2.00		ppbv	2.00		BRL				30
Hexachlorobutadiene	< 2.00		ppbv	2.00		BRL				30
Surrogate: 4-Bromofluorobenzene	*9.56*		ppbv		*10.0*		*96*	*70-130*		

Certificate of Analysis

Container Type: Summa canister 6 liter **Date of Analysis:** 2/24/2012

Canister ID: 162 **Analyst's Initials:**

The sampling device detailed above has been tested and is certified to the limits for the target compounds as listed below.

Analyte	*Quantitation Limit (ppbv)*	*Analyte*	*Quantitation Limit (ppbv)*
Acetone	<0.2	Ethanol	<0.2
Acrylonitrile	<0.2	4-Isopropyl Toluene	<0.2
Benzene	<0.2	Ethyl acetate	<0.2
Benzyl chloride	<0.2	Ethylbenzene	<0.2
Bromodichloromethane	<0.2	4-Ethyltoluene	<0.2
Bromoform	<0.2	n-Heptane	<0.2
Bromomethane	<0.2	Hexachlorobutadiene	<0.2
1,3-Butadiene	<0.2	Hexane	<0.2
2-Butanone (MEK)	<0.2	2-Hexanone (MBK)	<0.2
Carbon disulfide	<0.2	Isopropyl alcohol	<0.2
Carbon tetrachloride	<0.2	4-Methyl-2-pentanone (MIBK)	<0.2
Chlorobenzene	<0.2	Methyl tert-butyl ether	<0.2
Chloroethane	<0.2	Methylene chloride	<0.2
1,4-Dioxane	<0.2	Naphthalene	<0.2
n-Butylbenzene	<0.2	1,1,1,2-Tetrachlorethane	<0.2
Chloroform	<0.2	Propene	<0.2
Chloromethane	<0.2	Styrene	<0.2
Cyclohexane	<0.2	1,1,2,2-Tetrachloroethane	<0.2
Dibromochloromethane	<0.2	Tetrachloroethene	<0.2
1,2-Dibromoethane (EDB)	<0.2	Tetrahydrofuran	<0.2
1,2-Dichlorobenzene	<0.2	Toluene	<0.2
1,3-Dichlorobenzene	<0.2	1,2,4-Trichlorobenzene	<0.2
1,4-Dichlorobenzene	<0.2	1,1,1-Trichloroethane	<0.2
Dichlorodifluoromethane (Freon12)	<0.2	1,1,2-Trichloroethane	<0.2
1,1-Dichloroethane	<0.2	Trichloroethene	<0.2
1,2-Dichloroethane	<0.2	1,1,2-Trichlorotrifluoroethane (Freon 113)	<0.2
1,1-Dichloroethene	<0.2	Trichlorofluoromethane (Freon 11)	<0.2
cis-1,2-Dichloroethene	<0.2	1,2,4-Trimethylbenzene	<0.2
trans-1,2-Dichloroethene	<0.2	1,3,5-Trimethylbenzene	<0.2
1,2-Dichloropropane	<0.2	Vinyl chloride	<0.2
cis-1,3-Dichloropropene	<0.2	m,p-Xylene	<0.2
trans-1,3-Dichloropropene	<0.2	o-Xylene	<0.2
1,2-Dichlorotetrafluoroethane (Freon 114)	<0.2	sec-Butylbenzene	<0.2
Isopropylbenzene	<0.2		

This certification applies to the following sampling devices:

162

Certificate of Analysis

Container Type: Summa canister 6 liter **Date of Analysis:** 3/1/2012

Canister ID: 494 **Analyst's Initials:** KG

The sampling device detailed above has been tested and is certified to the limits for the target compounds as listed below.

Analyte	*Quantitation Limit (ppbv)*	*Analyte*	*Quantitation Limit (ppbv)*
Acetone	<0.2	Ethanol	<0.2
Acrylonitrile	<0.2	4-Isopropyl Toluene	<0.2
Benzene	<0.2	Ethyl acetate	<0.2
Benzyl chloride	<0.2	Ethylbenzene	<0.2
Bromodichloromethane	<0.2	4-Ethyltoluene	<0.2
Bromoform	<0.2	n-Heptane	<0.2
Bromomethane	<0.2	Hexachlorobutadiene	<0.2
1,3-Butadiene	<0.2	Hexane	<0.2
2-Butanone (MEK)	<0.2	2-Hexanone (MBK)	<0.2
Carbon disulfide	<0.2	Isopropyl alcohol	<0.2
Carbon tetrachloride	<0.2	4-Methyl-2-pentanone (MIBK)	<0.2
Chlorobenzene	<0.2	Methyl tert-butyl ether	<0.2
Chloroethane	<0.2	Methylene chloride	<0.2
1,4-Dioxane	<0.2	Naphthalene	<0.2
n-Butylbenzene	<0.2	1,1,1,2-Tetrachlorethane	<0.2
Chloroform	<0.2	Propene	<0.2
Chloromethane	<0.2	Styrene	<0.2
Cyclohexane	<0.2	1,1,2,2-Tetrachloroethane	<0.2
Dibromochloromethane	<0.2	Tetrachloroethene	<0.2
1,2-Dibromoethane (EDB)	<0.2	Tetrahydrofuran	<0.2
1,2-Dichlorobenzene	<0.2	Toluene	<0.2
1,3-Dichlorobenzene	<0.2	1,2,4-Trichlorobenzene	<0.2
1,4-Dichlorobenzene	<0.2	1,1,1-Trichloroethane	<0.2
Dichlorodifluoromethane (Freon12)	<0.2	1,1,2-Trichloroethane	<0.2
1,1-Dichloroethane	<0.2	Trichloroethene	<0.2
1,2-Dichloroethane	<0.2	1,1,2-Trichlorotrifluoroethane (Freon 113)	<0.2
1,1-Dichloroethene	<0.2	Trichlorofluoromethane (Freon 11)	<0.2
cis-1,2-Dichloroethene	<0.2	1,2,4-Trimethylbenzene	<0.2
trans-1,2-Dichloroethene	<0.2	1,3,5-Trimethylbenzene	<0.2
1,2-Dichloropropane	<0.2	Vinyl chloride	<0.2
cis-1,3-Dichloropropene	<0.2	m,p-Xylene	<0.2
trans-1,3-Dichloropropene	<0.2	o-Xylene	<0.2
1,2-Dichlorotetrafluoroethane (Freon 114)	<0.2	sec-Butylbenzene	<0.2
Isopropylbenzene	<0.2		

This certification applies to the following sampling devices:

113

Notes and Definitions

E	The concentration indicated for this analyte is an estimated value. This value is considered an estimate (CLP E-flag).
GS1	Sample dilution required for high concentration of target analytes to be within the instrument calibration range.
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference
J	Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).

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

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

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

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

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

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

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

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

Validated by:
Rebecca Merz

SB45432 DLC

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

Chain of Custody Record/Field Test Data Sheets for Air Analyses

Page 1 of 1

Special Handling:
☐ Standard TAT - 7 to 10 business days
☑ Rush TAT - Date Needed: 3/20/12

· All TATs subject to laboratory approval.
· Min. 24-hour notification needed for rushes.

Report To: OTO	**Invoice To:** OTO		
253 Bridge St Suite 320		**Project No.:** 1753-03-01	
Springfield, MA 01103		**Site Name:** Lunt Silversmith	
		Location: Greenfield **State:** MA	
Tel #: 413-788-6222	**Attn:**	**Sampler(s):** B. Thompson	
Project Manager: Val Tillinghast	**P.O. No.:** **RQN:**		

Can ID	Can Size (L)	Outgoing Canister Pressure ("Hg) (Lab)	Incoming Canister Pressure ("Hg) (Lab)	Flow Reg. ID	Flow Controller Readout (ml/min)	Lab Id:	Sample Id:	Sample Date(s)	Time Start (24 hr clock)	Time Stop (24 hr clock)	Canister Pressure in Field ("Hg) (Start)	Canister Pressure in Field ("Hg) (Stop)	Interior Temp. (F) (Start)	Interior Temp. (F) (Stop)	Analysis: TO-15	Matrix: Indoor /Ambient Air	Matrix: Soil Gas	Check box if canister is returned unused
LABORATORY USE ONLY																		
0113	3.2	-30		2861	80.5	SB45432-01	SG-6	3/15/12	0923	0953	29	7	45	45	X			
0162	3.2	-30		2860	80.3	↓ 02	SG-7	↓	0925	0955	29	2	45	45	X			

Date of Request: 3/13/12	Total # Canisters: 2	**QA/QC Reporting Level:**	
Requested by: Brin Thompson	# LL Canisters: -	☐ Standard ☐ NY ASP A* ☐ TIER II* ☐ MA DEP CAM	
Company: OTO	# Flow Controllers: 2	☐ NO QC ☐ NY ASP B* ☐ TIER IV* ☐ CT DPH RCP	
Location: Springfield, MA	Flow Rate/Setting: 30mins	☐ DQA* * additional charges may apply contact SA's QA Department for further info.	
Date Needed: 3/14/12	Order #: 21851	**Special Instructions/QC Requirements & Comments:**	

Client Use	Ambient Temperature (Fahrenheit)	Ambient Pressure (inches of Hg)
Start		
Stop		

I attest that all media relinquished from Spectrum Analytical, Inc. have been received in good working condition, based on visual observation, and agree to the terms and conditions as listed on the back of this document.

Signed: [signature] Date: 3-14-12

Printed: Yvonne Provost

MCP CAM

Please contact SA's Air Department immediately at (800) 789-9115 if you experience any technical difficulties or suspect any QC issue(s) with air media.

Relinquished by:	Received by:	Date:	Time:
	[signature]	3/15/12	9:24

☐ EDD Format
☑ E-mail Results to tillinghast@otg-env.com

11 Almgren Drive • Agawam, MA 01001 • 1-800-789-9115 • 413-789-9018 • FAX 413-789-4076 • www.spectrum-analytical.com

17.4 cans

Report Date:
20-Mar-12 16:47

☑ Final Report
☐ Re-Issued Report
☐ Revised Report

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

Laboratory Report

O'Reilly, Talbot & Okun
293 Bridge Street; Suite 500
Springfield, MA 01103
Attn: Val Tillinghast

Project: Lunt Silversmith-Greenfield, MA
Project #: 1753-03-01

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
SB45430-01	Transformer	Soil	15-Mar-12 00:00	15-Mar-12 12:38
SB45430-02	CB-1	Ground Water	15-Mar-12 00:00	15-Mar-12 12:38
SB45430-03	CB-2	Ground Water	15-Mar-12 00:00	15-Mar-12 12:38
SB45430-04	LS-19	Ground Water	15-Mar-12 00:00	15-Mar-12 12:38

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

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

Authorized by:

Nicole Leja
Laboratory Director

Spectrum Analytical holds certification in the State of Massachusetts for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of Massachusetts does not offer certification for all analytes.
Please note that this report contains 28 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Spectrum Analytical, Inc.

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

The following outlines the condition of all EPH samples contained within this report upon laboratory receipt.

Matrices	Soil
Containers	✓ Satisfactory
Aqueous Preservative	✓ N/A pH≤2 pH>2 pH adjusted to <2 in lab
Temperature	✓ Received on ice ✓ Received at 4 ± 2 ºC

Were all QA/QC procedures followed as required by the EPH method? *Yes*
Were any significant modifications made to the EPH method as specified in Section 11.3? *No*
Were all performance/acceptance standards for required QA/QC procedures achieved? *Yes*

I attest that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Authorized by:

Nicole Leja
Laboratory Director

MassDEP Analytical Protocol Certification Form

Laboratory Name: Spectrum Analytical, Inc.	**Project #:** 1753-03-01
Project Location: Lunt Silversmith-Greenfield, MA	**RTN:**
This form provides certifications for the following data set:	SB45430-01 through SB45430-04
Matrices: Ground Water Soil	

CAM Protocol

✓ 8260 VOC CAM II A	✓ 7470/7471 Hg CAM III B	MassDEP VPH CAM IV A	8081 Pesticides CAM V B	7196 Hex Cr CAM VI B	MassDEP APH CAM IX A
8270 SVOC CAM II B	7010 Metals CAM III C	✓ MassDEP EPH CAM IV B	8151 Herbicides CAM V C	8330 Explosives CAM VIII A	TO-15 VOC CAM IX B
✓ 6010 Metals CAM III A	6020 Metals CAM III D	✓ 8082 PCB CAM V A	9012 Total Cyanide/PAC CAM VI A	9014 Total Cyanide/PAC CAM VI A	6860 Perchlorate CAM VIII B

Affirmative responses to questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain of Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	✓ Yes No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	✓ Yes No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	✓ Yes No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	✓ Yes No
E	a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	✓ Yes No Yes No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to questions A through E)?	✓ Yes No

Responses to questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	Yes ✓ No

<u>Data User Note:</u> Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.

H	Were all QC performance standards specified in the CAM protocol(s) achieved?	Yes ✓ No
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	Yes ✓ No

All negative responses are addressed in a case narrative on the cover page of this report.

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

Nicole Leja
Laboratory Director
Date: 3/20/2012

CASE NARRATIVE:

The samples were received 3.6 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/- 1.0 degrees Celsius was used immediately upon receipt of the samples.

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

MADEP has published a list of analytical methods (CAM) which provides a series of recommended protocols for the acquisition, analysis and reporting of analytical data in support of MCP decisions. "Presumptive Certainty" can be established only for those methods published by the MADEP in the MCP CAM. The compounds and/or elements reported were specifically requested by the client on the Chain of Custody and in some cases may not include the full analyte list as defined in the method. Regulatory limits may not be achieved if specific method and/or technique was not requested on the Chain of Custody.

According to WSC-CAM 5/2009 Rev.1, Table 11 A-1, recovery for some VOC analytes have been deemed potentially difficult. Although they may still be within the recommended recovery range, a range has been set based on historical control limits.

Some target analytes which are not listed as exceptions in the Summary of CAM Reporting Limits may exceed the recommended RL based on sample initial volume or weight provided, % moisture content, or responsiveness of a particular analyte to purge and trap instrumentation.

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

SW846 6010C

Duplicates:

1206039-DUP1 *Source: SB45430-04*

Analyses are not controlled on RPD values from sample concentrations that are less than 5 times the reporting level. The batch is accepted based upon the difference between the sample and duplicate is less than or equal to the reporting limit.

Cadmium

SW846 8260C

Calibration:

1202011

Analyte quantified by quadratic equation type calibration.

1,2-Dibromo-3-chloropropane
Bromodichloromethane
Bromoform
Carbon disulfide
Carbon tetrachloride
cis-1,3-Dichloropropene
Dibromochloromethane
trans-1,3-Dichloropropene

This affected the following samples:

1206227-BLK1
1206227-BS1
1206227-BSD1
CB-1
CB-2
S201599-ICV1
S203031-CCV1

Laboratory Control Samples:

1206227 BS/BSD

SW846 8260C

Laboratory Control Samples:

1206227 BS/BSD

1,1,1-Trichloroethane percent recoveries (136/129) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

CB-1
CB-2

Chloromethane percent recoveries (116/156) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

CB-1
CB-2

Vinyl chloride percent recoveries (141/146) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

CB-1
CB-2

1206227 BSD

Chloromethane RPD 29% (25%) is outside individual acceptance criteria, but within overall method allowances.

Samples:

S203031-CCV1

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

1,1,1-Trichloroethane (31.9%)
2,2-Dichloropropane (22.6%)
Acetone (28.5%)
Vinyl chloride (39.3%)

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

Carbon tetrachloride (22.2%)

This affected the following samples:

1206227-BLK1
1206227-BS1
1206227-BSD1
CB-1
CB-2

SB45430-02 *CB-1*

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

SB45430-03 *CB-2*

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

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
Transformer SB45430-01	1753-03-01	Soil	15-Mar-12 00:00	15-Mar-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Semivolatile Organic Compounds by GC													
Polychlorinated Biphenyls Prepared by method SW846 3545A													
12674-11-2	Aroclor-1016	< 23.6		µg/kg dry	23.6	11.8	1	SW846 8082A	16-Mar-12	19-Mar-12	IMR	1205932	
11104-28-2	Aroclor-1221	< 23.6		µg/kg dry	23.6	21.3	1	"	"	"	"	"	
11141-16-5	Aroclor-1232	< 23.6		µg/kg dry	23.6	15.2	1	"	"	"	"	"	
53469-21-9	Aroclor-1242	< 23.6		µg/kg dry	23.6	13.9	1	"	"	"	"	"	
12672-29-6	Aroclor-1248	< 23.6		µg/kg dry	23.6	11.6	1	"	"	"	"	"	
11097-69-1	Aroclor-1254	< 23.6		µg/kg dry	23.6	17.3	1	"	"	"	"	"	
11096-82-5	Aroclor-1260	< 23.6		µg/kg dry	23.6	9.06	1	"	"	"	"	"	
37324-23-5	Aroclor-1262	< 23.6		µg/kg dry	23.6	22.0	1	"	"	"	"	"	
11100-14-4	Aroclor-1268	< 23.6		µg/kg dry	23.6	7.42	1	"	"	"	"	"	
Surrogate recoveries:													
10386-84-2	*4,4-DB-Octafluorobiphenyl (Sr)*	*70*			*30-150 %*			"	"	"	"	"	
10386-84-2	*4,4-DB-Octafluorobiphenyl (Sr) [2C]*	*75*			*30-150 %*			"	"	"	"	"	
2051-24-3	*Decachlorobiphenyl (Sr)*	*75*			*30-150 %*			"	"	"	"	"	
2051-24-3	*Decachlorobiphenyl (Sr) [2C]*	*80*			*30-150 %*			"	"	"	"	"	
Extractable Petroleum Hydrocarbons													
EPH Aliphatic/Aromatic Ranges Prepared by method SW846 3545A													
	C9-C18 Aliphatic Hydrocarbons	< 11.8		mg/kg dry	11.8	1.74	1	MADEP EPH 5/2004 R	16-Mar-12	20-Mar-12	MP	1205933	
	C19-C36 Aliphatic Hydrocarbons	< 11.8		mg/kg dry	11.8	5.77	1	"	"	"	"	"	
	C11-C22 Aromatic Hydrocarbons	< 11.8		mg/kg dry	11.8	4.27	1	"	"	"	"	"	
	Unadjusted C11-C22 Aromatic Hydrocarbons	< 11.8		mg/kg dry	11.8	4.27	1	"	"	"	"	"	
	Total Petroleum Hydrocarbons	< 11.8		mg/kg dry	11.8	11.8	1	"	"	"	"	"	
	Unadjusted Total Petroleum Hydrocarbons	< 11.8		mg/kg dry	11.8	11.8	1	"	"	"	"	"	
EPH Target PAH Analytes Prepared by method SW846 3545A													
91-20-3	Naphthalene	< 0.393		mg/kg dry	0.393	0.206	1	"	"	"	"	"	
91-57-6	2-Methylnaphthalene	< 0.393		mg/kg dry	0.393	0.205	1	"	"	"	"	"	
208-96-8	Acenaphthylene	< 0.393		mg/kg dry	0.393	0.230	1	"	"	"	"	"	
83-32-9	Acenaphthene	< 0.393		mg/kg dry	0.393	0.230	1	"	"	"	"	"	
86-73-7	Fluorene	< 0.393		mg/kg dry	0.393	0.232	1	"	"	"	"	"	
85-01-8	Phenanthrene	< 0.393		mg/kg dry	0.393	0.268	1	"	"	"	"	"	
120-12-7	Anthracene	< 0.393		mg/kg dry	0.393	0.291	1	"	"	"	"	"	
206-44-0	Fluoranthene	< 0.393		mg/kg dry	0.393	0.264	1	"	"	"	"	"	
129-00-0	Pyrene	< 0.393		mg/kg dry	0.393	0.283	1	"	"	"	"	"	
56-55-3	Benzo (a) anthracene	< 0.393		mg/kg dry	0.393	0.285	1	"	"	"	"	"	
218-01-9	Chrysene	< 0.393		mg/kg dry	0.393	0.306	1	"	"	"	"	"	
205-99-2	Benzo (b) fluoranthene	< 0.393		mg/kg dry	0.393	0.351	1	"	"	"	"	"	
207-08-9	Benzo (k) fluoranthene	< 0.393		mg/kg dry	0.393	0.328	1	"	"	"	"	"	
50-32-8	Benzo (a) pyrene	< 0.393		mg/kg dry	0.393	0.264	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
Transformer SB45430-01	1753-03-01	Soil	15-Mar-12 00:00	15-Mar-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Extractable Petroleum Hydrocarbons													
EPH Target PAH Analytes Prepared by method SW846 3545A													
193-39-5	Indeno (1,2,3-cd) pyrene	< 0.393		mg/kg dry	0.393	0.349	1	MADEP EPH 5/2004 R	16-Mar-12	20-Mar-12	MP	1205933	
53-70-3	Dibenzo (a,h) anthracene	< 0.393		mg/kg dry	0.393	0.285	1	"	"	"	"	"	
191-24-2	Benzo (g,h,i) perylene	< 0.393		mg/kg dry	0.393	0.295	1	"	"	"	"	"	
Surrogate recoveries:													
3386-33-2	*1-Chlorooctadecane*	*60*			*40-140 %*			"	"	"	"	"	
84-15-1	*Ortho-Terphenyl*	*68*			*40-140 %*			"	"	"	"	"	
321-60-8	*2-Fluorobiphenyl*	*67*			*40-140 %*			"	"	"	"	"	
General Chemistry Parameters													
	% Solids	**83.8**		%			1	SM2540 G Mod.	16-Mar-12	16-Mar-12	DT	1205969	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
CB-1	1753-03-01	Ground Water	15-Mar-12 00:00	15-Mar-12
SB45430-02				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds Prepared by method SW846 5030 Water MS			GS1										
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 5.0		µg/l	5.0	3.2	5	SW846 8260C	20-Mar-12	20-Mar-12	naa	1206227	
67-64-1	Acetone	< 50.0		µg/l	50.0	12.8	5	"	"	"	"	"	
107-13-1	Acrylonitrile	< 2.5		µg/l	2.5	2.3	5	"	"	"	"	"	
71-43-2	Benzene	< 5.0		µg/l	5.0	3.3	5	"	"	"	"	"	
108-86-1	Bromobenzene	< 5.0		µg/l	5.0	3.6	5	"	"	"	"	"	
74-97-5	Bromochloromethane	< 5.0		µg/l	5.0	3.6	5	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 2.5		µg/l	2.5	2.4	5	"	"	"	"	"	
75-25-2	Bromoform	< 5.0		µg/l	5.0	3.0	5	"	"	"	"	"	
74-83-9	Bromomethane	< 10.0		µg/l	10.0	5.7	5	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	< 50.0		µg/l	50.0	8.7	5	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 5.0		µg/l	5.0	2.8	5	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 5.0		µg/l	5.0	4.1	5	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 5.0		µg/l	5.0	3.7	5	"	"	"	"	"	
75-15-0	Carbon disulfide	< 10.0		µg/l	10.0	3.1	5	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 5.0		µg/l	5.0	2.7	5	"	"	"	"	"	
108-90-7	Chlorobenzene	< 5.0		µg/l	5.0	3.3	5	"	"	"	"	"	
75-00-3	Chloroethane	< 10.0		µg/l	10.0	5.2	5	"	"	"	"	"	
67-66-3	Chloroform	< 5.0		µg/l	5.0	3.4	5	"	"	"	"	"	
74-87-3	Chloromethane	< 10.0		µg/l	10.0	7.4	5	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 5.0		µg/l	5.0	4.0	5	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 5.0		µg/l	5.0	3.7	5	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	< 10.0		µg/l	10.0	4.6	5	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 2.5		µg/l	2.5	1.4	5	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 2.5		µg/l	2.5	1.6	5	"	"	"	"	"	
74-95-3	Dibromomethane	< 5.0		µg/l	5.0	3.3	5	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 5.0		µg/l	5.0	3.3	5	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 5.0		µg/l	5.0	3.6	5	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 5.0		µg/l	5.0	3.1	5	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 10.0		µg/l	10.0	2.2	5	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 5.0		µg/l	5.0	3.4	5	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 5.0		µg/l	5.0	3.9	5	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 5.0		µg/l	5.0	2.4	5	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	**30.8**		µg/l	5.0	3.6	5	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 5.0		µg/l	5.0	3.4	5	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 5.0		µg/l	5.0	3.6	5	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 5.0		µg/l	5.0	4.0	5	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 5.0		µg/l	5.0	3.0	5	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 5.0		µg/l	5.0	3.2	5	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 2.5		µg/l	2.5	1.3	5	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 2.5		µg/l	2.5	2.5	5	"	"	"	"	"	
100-41-4	Ethylbenzene	< 5.0		µg/l	5.0	3.7	5	"	"	"	"	"	
87-68-3	Hexachlorobutadiene	< 2.5		µg/l	2.5	2.2	5	"	"	"	"	"	
591-78-6	2-Hexanone (MBK)	< 50.0		µg/l	50.0	2.7	5	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
CB-1	1753-03-01	Ground Water	15-Mar-12 00:00	15-Mar-12
SB45430-02				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds Prepared by method SW846 5030 Water MS			GS1										
98-82-8	Isopropylbenzene	< 5.0		µg/l	5.0	3.1	5	SW846 8260C	20-Mar-12	20-Mar-12	naa	1206227	
99-87-6	4-Isopropyltoluene	< 5.0		µg/l	5.0	3.0	5	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 5.0		µg/l	5.0	3.3	5	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 50.0		µg/l	50.0	4.7	5	"	"	"	"	"	
75-09-2	Methylene chloride	< 10.0		µg/l	10.0	3.4	5	"	"	"	"	"	
91-20-3	Naphthalene	< 5.0		µg/l	5.0	1.7	5	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 5.0		µg/l	5.0	3.8	5	"	"	"	"	"	
100-42-5	Styrene	< 5.0		µg/l	5.0	3.1	5	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 5.0		µg/l	5.0	3.1	5	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 2.5		µg/l	2.5	1.7	5	"	"	"	"	"	
127-18-4	Tetrachloroethene	< 5.0		µg/l	5.0	3.7	5	"	"	"	"	"	
108-88-3	Toluene	< 5.0		µg/l	5.0	4.1	5	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 5.0		µg/l	5.0	1.9	5	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 5.0		µg/l	5.0	1.8	5	"	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 5.0		µg/l	5.0	3.9	5	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 5.0		µg/l	5.0	2.9	5	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 5.0		µg/l	5.0	3.2	5	"	"	"	"	"	
79-01-6	Trichloroethene	**115**		µg/l	5.0	3.8	5	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 5.0		µg/l	5.0	3.1	5	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 5.0		µg/l	5.0	3.7	5	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 5.0		µg/l	5.0	3.8	5	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 5.0		µg/l	5.0	3.7	5	"	"	"	"	"	
75-01-4	Vinyl chloride	< 5.0		µg/l	5.0	4.0	5	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 10.0		µg/l	10.0	8.2	5	"	"	"	"	"	
95-47-6	o-Xylene	< 5.0		µg/l	5.0	4.4	5	"	"	"	"	"	
109-99-9	Tetrahydrofuran	< 10.0		µg/l	10.0	7.2	5	"	"	"	"	"	
60-29-7	Ethyl ether	< 5.0		µg/l	5.0	3.5	5	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	< 5.0		µg/l	5.0	3.6	5	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 5.0		µg/l	5.0	3.9	5	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 5.0		µg/l	5.0	3.6	5	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 50.0		µg/l	50.0	43.2	5	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 100		µg/l	100	70.1	5	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-buten e	< 25.0		µg/l	25.0	3.8	5	"	"	"	"	"	
64-17-5	Ethanol	< 2000		µg/l	2000	178	5	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*95*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*101*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*105*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*110*			*70-130 %*			"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
CB-2	1753-03-01	Ground Water	15-Mar-12 00:00	15-Mar-12
SB45430-03				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds Prepared by method SW846 5030 Water MS			GS1										
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 10.0		µg/l	10.0	6.5	10	SW846 8260C	20-Mar-12	20-Mar-12	naa	1206227	
67-64-1	Acetone	< 100		µg/l	100	25.6	10	"	"	"	"	"	
107-13-1	Acrylonitrile	< 5.0		µg/l	5.0	4.6	10	"	"	"	"	"	
71-43-2	Benzene	< 10.0		µg/l	10.0	6.7	10	"	"	"	"	"	
108-86-1	Bromobenzene	< 10.0		µg/l	10.0	7.2	10	"	"	"	"	"	
74-97-5	Bromochloromethane	< 10.0		µg/l	10.0	7.1	10	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 5.0		µg/l	5.0	4.8	10	"	"	"	"	"	
75-25-2	Bromoform	< 10.0		µg/l	10.0	6.0	10	"	"	"	"	"	
74-83-9	Bromomethane	< 20.0		µg/l	20.0	11.4	10	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	< 100		µg/l	100	17.3	10	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 10.0		µg/l	10.0	5.6	10	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 10.0		µg/l	10.0	8.2	10	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 10.0		µg/l	10.0	7.4	10	"	"	"	"	"	
75-15-0	Carbon disulfide	< 20.0		µg/l	20.0	6.3	10	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 10.0		µg/l	10.0	5.5	10	"	"	"	"	"	
108-90-7	Chlorobenzene	< 10.0		µg/l	10.0	6.5	10	"	"	"	"	"	
75-00-3	Chloroethane	< 20.0		µg/l	20.0	10.3	10	"	"	"	"	"	
67-66-3	Chloroform	< 10.0		µg/l	10.0	6.9	10	"	"	"	"	"	
74-87-3	Chloromethane	< 20.0		µg/l	20.0	14.7	10	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 10.0		µg/l	10.0	7.9	10	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 10.0		µg/l	10.0	7.3	10	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	< 20.0		µg/l	20.0	9.3	10	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 5.0		µg/l	5.0	2.9	10	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 5.0		µg/l	5.0	3.3	10	"	"	"	"	"	
74-95-3	Dibromomethane	< 10.0		µg/l	10.0	6.7	10	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 10.0		µg/l	10.0	6.7	10	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 10.0		µg/l	10.0	7.1	10	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 10.0		µg/l	10.0	6.2	10	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 20.0		µg/l	20.0	4.5	10	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 10.0		µg/l	10.0	6.8	10	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 10.0		µg/l	10.0	7.8	10	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 10.0		µg/l	10.0	4.9	10	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	158		µg/l	10.0	7.2	10	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 10.0		µg/l	10.0	6.8	10	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 10.0		µg/l	10.0	7.1	10	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 10.0		µg/l	10.0	8.1	10	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 10.0		µg/l	10.0	6.0	10	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 10.0		µg/l	10.0	6.4	10	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 5.0		µg/l	5.0	2.5	10	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 5.0		µg/l	5.0	5.0	10	"	"	"	"	"	
100-41-4	Ethylbenzene	< 10.0		µg/l	10.0	7.3	10	"	"	"	"	"	
87-68-3	Hexachlorobutadiene	< 5.0		µg/l	5.0	4.5	10	"	"	"	"	"	
591-78-6	2-Hexanone (MBK)	< 100		µg/l	100	5.4	10	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
CB-2	1753-03-01	Ground Water	15-Mar-12 00:00	15-Mar-12
SB45430-03				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds Prepared by method SW846 5030 Water MS			GS1										
98-82-8	Isopropylbenzene	< 10.0		µg/l	10.0	6.2	10	SW846 8260C	20-Mar-12	20-Mar-12	naa	1206227	
99-87-6	4-Isopropyltoluene	< 10.0		µg/l	10.0	6.1	10	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 10.0		µg/l	10.0	6.5	10	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 100		µg/l	100	9.3	10	"	"	"	"	"	
75-09-2	Methylene chloride	< 20.0		µg/l	20.0	6.9	10	"	"	"	"	"	
91-20-3	Naphthalene	< 10.0		µg/l	10.0	3.3	10	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 10.0		µg/l	10.0	7.6	10	"	"	"	"	"	
100-42-5	Styrene	< 10.0		µg/l	10.0	6.2	10	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 10.0		µg/l	10.0	6.3	10	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 5.0		µg/l	5.0	3.5	10	"	"	"	"	"	
127-18-4	Tetrachloroethene	**16.8**		µg/l	10.0	7.4	10	"	"	"	"	"	
108-88-3	Toluene	< 10.0		µg/l	10.0	8.1	10	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 10.0		µg/l	10.0	3.8	10	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 10.0		µg/l	10.0	3.6	10	"	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 10.0		µg/l	10.0	7.8	10	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 10.0		µg/l	10.0	5.8	10	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 10.0		µg/l	10.0	6.4	10	"	"	"	"	"	
79-01-6	Trichloroethene	**581**		µg/l	10.0	7.6	10	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 10.0		µg/l	10.0	6.3	10	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 10.0		µg/l	10.0	7.4	10	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 10.0		µg/l	10.0	7.6	10	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 10.0		µg/l	10.0	7.4	10	"	"	"	"	"	
75-01-4	Vinyl chloride	< 10.0		µg/l	10.0	8.1	10	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 20.0		µg/l	20.0	16.4	10	"	"	"	"	"	
95-47-6	o-Xylene	< 10.0		µg/l	10.0	8.8	10	"	"	"	"	"	
109-99-9	Tetrahydrofuran	< 20.0		µg/l	20.0	14.4	10	"	"	"	"	"	
60-29-7	Ethyl ether	< 10.0		µg/l	10.0	6.9	10	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	< 10.0		µg/l	10.0	7.2	10	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 10.0		µg/l	10.0	7.8	10	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 10.0		µg/l	10.0	7.3	10	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 100		µg/l	100	86.4	10	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 200		µg/l	200	140	10	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-buten e	< 50.0		µg/l	50.0	7.7	10	"	"	"	"	"	
64-17-5	Ethanol	< 4000		µg/l	4000	357	10	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*96*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*98*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*110*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*112*			*70-130 %*			"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-19 SB45430-04	1753-03-01	Ground Water	15-Mar-12 00:00	15-Mar-12

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Soluble Metals by EPA 200/6000 Series Methods													
	Filtration	**Field Filtered**		N/A			1	EPA 200.7/3005A/6010			JLH	1205878	
Soluble Metals by EPA 6000/7000 Series Methods													
7440-22-4	Silver	< 0.0050		mg/l	0.0050	0.0020	1	SW846 6010C	16-Mar-12	17-Mar-12	LR	1206039	
7440-38-2	Arsenic	**0.0252**		mg/l	0.0040	0.0032	1	"	"	"	"	"	
7440-39-3	Barium	**0.0881**		mg/l	0.0050	0.0034	1	"	"	"	"	"	
7440-43-9	Cadmium	< 0.0025		mg/l	0.0025	0.0001	1	"	"	"	"	"	
7440-47-3	Chromium	< 0.0050		mg/l	0.0050	0.0034	1	"	"	"	"	"	
7439-92-1	Lead	< 0.0075		mg/l	0.0075	0.0045	1	"	"	"	"	"	
7782-49-2	Selenium	< 0.0150		mg/l	0.0150	0.0024	1	"	"	"	"	"	
Soluble Metals by EPA 200 Series Methods													
7439-97-6	Mercury	< 0.00020		mg/l	0.00020	0.00007	1	EPA 245.1/7470A	16-Mar-12	19-Mar-12	EDT	1206040	X

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1206227 - SW846 5030 Water MS										
Blank (1206227-BLK1)					Prepared & Analyzed: 20-Mar-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0						
Acetone	< 10.0		µg/l	10.0						
Acrylonitrile	< 0.5		µg/l	0.5						
Benzene	< 1.0		µg/l	1.0						
Bromobenzene	< 1.0		µg/l	1.0						
Bromochloromethane	< 1.0		µg/l	1.0						
Bromodichloromethane	< 0.5		µg/l	0.5						
Bromoform	< 1.0		µg/l	1.0						
Bromomethane	< 2.0		µg/l	2.0						
2-Butanone (MEK)	< 10.0		µg/l	10.0						
n-Butylbenzene	< 1.0		µg/l	1.0						
sec-Butylbenzene	< 1.0		µg/l	1.0						
tert-Butylbenzene	< 1.0		µg/l	1.0						
Carbon disulfide	< 2.0		µg/l	2.0						
Carbon tetrachloride	< 1.0		µg/l	1.0						
Chlorobenzene	< 1.0		µg/l	1.0						
Chloroethane	< 2.0		µg/l	2.0						
Chloroform	< 1.0		µg/l	1.0						
Chloromethane	< 2.0		µg/l	2.0						
2-Chlorotoluene	< 1.0		µg/l	1.0						
4-Chlorotoluene	< 1.0		µg/l	1.0						
1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0						
Dibromochloromethane	< 0.5		µg/l	0.5						
1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5						
Dibromomethane	< 1.0		µg/l	1.0						
1,2-Dichlorobenzene	< 1.0		µg/l	1.0						
1,3-Dichlorobenzene	< 1.0		µg/l	1.0						
1,4-Dichlorobenzene	< 1.0		µg/l	1.0						
Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0						
1,1-Dichloroethane	< 1.0		µg/l	1.0						
1,2-Dichloroethane	< 1.0		µg/l	1.0						
1,1-Dichloroethene	< 1.0		µg/l	1.0						
cis-1,2-Dichloroethene	< 1.0		µg/l	1.0						
trans-1,2-Dichloroethene	< 1.0		µg/l	1.0						
1,2-Dichloropropane	< 1.0		µg/l	1.0						
1,3-Dichloropropane	< 1.0		µg/l	1.0						
2,2-Dichloropropane	< 1.0		µg/l	1.0						
1,1-Dichloropropene	< 1.0		µg/l	1.0						
cis-1,3-Dichloropropene	< 0.5		µg/l	0.5						
trans-1,3-Dichloropropene	< 0.5		µg/l	0.5						
Ethylbenzene	< 1.0		µg/l	1.0						
Hexachlorobutadiene	< 0.5		µg/l	0.5						
2-Hexanone (MBK)	< 10.0		µg/l	10.0						
Isopropylbenzene	< 1.0		µg/l	1.0						
4-Isopropyltoluene	< 1.0		µg/l	1.0						
Methyl tert-butyl ether	< 1.0		µg/l	1.0						
4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0						
Methylene chloride	< 2.0		µg/l	2.0						
Naphthalene	< 1.0		µg/l	1.0						
n-Propylbenzene	< 1.0		µg/l	1.0						
Styrene	< 1.0		µg/l	1.0						
1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1206227 - SW846 5030 Water MS										
Blank (1206227-BLK1)					Prepared & Analyzed: 20-Mar-12					
1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5						
Tetrachloroethene	< 1.0		µg/l	1.0						
Toluene	< 1.0		µg/l	1.0						
1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0						
1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0						
1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0						
1,1,1-Trichloroethane	< 1.0		µg/l	1.0						
1,1,2-Trichloroethane	< 1.0		µg/l	1.0						
Trichloroethene	< 1.0		µg/l	1.0						
Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0						
1,2,3-Trichloropropane	< 1.0		µg/l	1.0						
1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0						
1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0						
Vinyl chloride	< 1.0		µg/l	1.0						
m,p-Xylene	< 2.0		µg/l	2.0						
o-Xylene	< 1.0		µg/l	1.0						
Tetrahydrofuran	< 2.0		µg/l	2.0						
Ethyl ether	< 1.0		µg/l	1.0						
Tert-amyl methyl ether	< 1.0		µg/l	1.0						
Ethyl tert-butyl ether	< 1.0		µg/l	1.0						
Di-isopropyl ether	< 1.0		µg/l	1.0						
Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0						
1,4-Dioxane	< 20.0		µg/l	20.0						
trans-1,4-Dichloro-2-butene	< 5.0		µg/l	5.0						
Ethanol	< 400		µg/l	400						
Surrogate: 4-Bromofluorobenzene	*28.0*		µg/l		*30.0*		*93*	*70-130*		
Surrogate: Toluene-d8	*30.6*		µg/l		*30.0*		*102*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*34.4*		µg/l		*30.0*		*115*	*70-130*		
Surrogate: Dibromofluoromethane	*32.5*		µg/l		*30.0*		*108*	*70-130*		
LCS (1206227-BS1)					Prepared & Analyzed: 20-Mar-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**20.7**		µg/l		20.0		104	70-130		
Acetone	**19.9**		µg/l		20.0		99	70-130		
Acrylonitrile	**18.8**		µg/l		20.0		94	70-130		
Benzene	**20.3**		µg/l		20.0		102	70-130		
Bromobenzene	**20.6**		µg/l		20.0		103	70-130		
Bromochloromethane	**21.6**		µg/l		20.0		108	70-130		
Bromodichloromethane	**23.8**		µg/l		20.0		119	70-130		
Bromoform	**21.2**		µg/l		20.0		106	70-130		
Bromomethane	**21.9**		µg/l		20.0		109	70-130		
2-Butanone (MEK)	**19.9**		µg/l		20.0		99	70-130		
n-Butylbenzene	**20.3**		µg/l		20.0		102	70-130		
sec-Butylbenzene	**21.9**		µg/l		20.0		110	70-130		
tert-Butylbenzene	**21.9**		µg/l		20.0		109	70-130		
Carbon disulfide	**23.4**		µg/l		20.0		117	70-130		
Carbon tetrachloride	**26.0**		µg/l		20.0		130	70-130		
Chlorobenzene	**19.8**		µg/l		20.0		99	70-130		
Chloroethane	**20.8**		µg/l		20.0		104	70-130		
Chloroform	**20.5**		µg/l		20.0		103	70-130		
Chloromethane	**23.2**		µg/l		20.0		116	70-130		
2-Chlorotoluene	**21.6**		µg/l		20.0		108	70-130		
4-Chlorotoluene	**21.6**		µg/l		20.0		108	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1206227 - SW846 5030 Water MS										
LCS (1206227-BS1)					Prepared & Analyzed: 20-Mar-12					
1,2-Dibromo-3-chloropropane	**20.5**		µg/l		20.0		103	70-130		
Dibromochloromethane	**23.9**		µg/l		20.0		119	70-130		
1,2-Dibromoethane (EDB)	**21.7**		µg/l		20.0		108	70-130		
Dibromomethane	**22.5**		µg/l		20.0		112	70-130		
1,2-Dichlorobenzene	**20.0**		µg/l		20.0		100	70-130		
1,3-Dichlorobenzene	**21.5**		µg/l		20.0		107	70-130		
1,4-Dichlorobenzene	**20.1**		µg/l		20.0		100	70-130		
Dichlorodifluoromethane (Freon12)	**24.8**		µg/l		20.0		124	70-130		
1,1-Dichloroethane	**20.6**		µg/l		20.0		103	70-130		
1,2-Dichloroethane	**22.3**		µg/l		20.0		112	70-130		
1,1-Dichloroethene	**21.5**		µg/l		20.0		107	70-130		
cis-1,2-Dichloroethene	**20.8**		µg/l		20.0		104	70-130		
trans-1,2-Dichloroethene	**20.9**		µg/l		20.0		105	70-130		
1,2-Dichloropropane	**20.0**		µg/l		20.0		100	70-130		
1,3-Dichloropropane	**20.0**		µg/l		20.0		100	70-130		
2,2-Dichloropropane	**24.4**		µg/l		20.0		122	70-130		
1,1-Dichloropropene	**20.9**		µg/l		20.0		105	70-130		
cis-1,3-Dichloropropene	**21.6**		µg/l		20.0		108	70-130		
trans-1,3-Dichloropropene	**21.9**		µg/l		20.0		109	70-130		
Ethylbenzene	**20.2**		µg/l		20.0		101	70-130		
Hexachlorobutadiene	**22.8**		µg/l		20.0		114	70-130		
2-Hexanone (MBK)	**17.7**		µg/l		20.0		88	70-130		
Isopropylbenzene	**20.3**		µg/l		20.0		101	70-130		
4-Isopropyltoluene	**20.9**		µg/l		20.0		104	70-130		
Methyl tert-butyl ether	**19.4**		µg/l		20.0		97	70-130		
4-Methyl-2-pentanone (MIBK)	**18.4**		µg/l		20.0		92	70-130		
Methylene chloride	**20.3**		µg/l		20.0		102	70-130		
Naphthalene	**17.8**		µg/l		20.0		89	70-130		
n-Propylbenzene	**21.3**		µg/l		20.0		106	70-130		
Styrene	**20.7**		µg/l		20.0		104	70-130		
1,1,1,2-Tetrachloroethane	**20.2**		µg/l		20.0		101	70-130		
1,1,2,2-Tetrachloroethane	**21.2**		µg/l		20.0		106	70-130		
Tetrachloroethene	**20.4**		µg/l		20.0		102	70-130		
Toluene	**20.3**		µg/l		20.0		102	70-130		
1,2,3-Trichlorobenzene	**20.6**		µg/l		20.0		103	70-130		
1,2,4-Trichlorobenzene	**19.4**		µg/l		20.0		97	70-130		
1,3,5-Trichlorobenzene	**19.7**		µg/l		20.0		99	70-130		
1,1,1-Trichloroethane	**27.2**	QM9	µg/l		20.0		136	70-130		
1,1,2-Trichloroethane	**20.7**		µg/l		20.0		104	70-130		
Trichloroethene	**20.4**		µg/l		20.0		102	70-130		
Trichlorofluoromethane (Freon 11)	**23.5**		µg/l		20.0		117	70-130		
1,2,3-Trichloropropane	**19.7**		µg/l		20.0		98	70-130		
1,2,4-Trimethylbenzene	**21.4**		µg/l		20.0		107	70-130		
1,3,5-Trimethylbenzene	**21.9**		µg/l		20.0		109	70-130		
Vinyl chloride	**28.1**	QC2	µg/l		20.0		141	70-130		
m,p-Xylene	**41.4**		µg/l		40.0		104	70-130		
o-Xylene	**21.0**		µg/l		20.0		105	70-130		
Tetrahydrofuran	**19.0**		µg/l		20.0		95	70-130		
Ethyl ether	**19.1**		µg/l		20.0		95	70-130		
Tert-amyl methyl ether	**19.2**		µg/l		20.0		96	70-130		
Ethyl tert-butyl ether	**18.8**		µg/l		20.0		94	70-130		
Di-isopropyl ether	**18.6**		µg/l		20.0		93	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1206227 - SW846 5030 Water MS										
LCS (1206227-BS1)						Prepared & Analyzed: 20-Mar-12				
Tert-Butanol / butyl alcohol	**195**		µg/l		200		97	70-130		
1,4-Dioxane	**191**		µg/l		200		95	70-130		
trans-1,4-Dichloro-2-butene	**17.0**		µg/l		20.0		85	70-130		
Ethanol	**386**		µg/l		400		96	70-130		
Surrogate: 4-Bromofluorobenzene	*29.0*		µg/l		*30.0*		*97*	*70-130*		
Surrogate: Toluene-d8	*30.2*		µg/l		*30.0*		*101*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*33.4*		µg/l		*30.0*		*111*	*70-130*		
Surrogate: Dibromofluoromethane	*32.5*		µg/l		*30.0*		*108*	*70-130*		
LCS Dup (1206227-BSD1)						Prepared & Analyzed: 20-Mar-12				
1,1,2-Trichlorotrifluoroethane (Freon 113)	**21.7**		µg/l		20.0		108	70-130	5	25
Acetone	**17.6**		µg/l		20.0		88	70-130	12	50
Acrylonitrile	**17.7**		µg/l		20.0		88	70-130	6	25
Benzene	**20.1**		µg/l		20.0		101	70-130	1	25
Bromobenzene	**22.0**		µg/l		20.0		110	70-130	7	25
Bromochloromethane	**21.1**		µg/l		20.0		106	70-130	2	25
Bromodichloromethane	**24.6**		µg/l		20.0		123	70-130	3	25
Bromoform	**20.8**		µg/l		20.0		104	70-130	2	25
Bromomethane	**22.0**		µg/l		20.0		110	70-130	0.6	50
2-Butanone (MEK)	**17.7**		µg/l		20.0		88	70-130	12	50
n-Butylbenzene	**21.0**		µg/l		20.0		105	70-130	3	25
sec-Butylbenzene	**22.8**		µg/l		20.0		114	70-130	4	25
tert-Butylbenzene	**22.8**		µg/l		20.0		114	70-130	4	25
Carbon disulfide	**24.4**		µg/l		20.0		122	70-130	4	25
Carbon tetrachloride	**25.1**		µg/l		20.0		125	70-130	4	25
Chlorobenzene	**20.6**		µg/l		20.0		103	70-130	4	25
Chloroethane	**21.2**		µg/l		20.0		106	70-130	2	50
Chloroform	**20.1**		µg/l		20.0		100	70-130	2	25
Chloromethane	**31.3**	QR5	µg/l		20.0		156	70-130	29	25
2-Chlorotoluene	**22.2**		µg/l		20.0		111	70-130	3	25
4-Chlorotoluene	**22.3**		µg/l		20.0		112	70-130	3	25
1,2-Dibromo-3-chloropropane	**20.1**		µg/l		20.0		101	70-130	2	25
Dibromochloromethane	**23.1**		µg/l		20.0		116	70-130	3	50
1,2-Dibromoethane (EDB)	**21.7**		µg/l		20.0		108	70-130	0.1	25
Dibromomethane	**21.9**		µg/l		20.0		109	70-130	3	25
1,2-Dichlorobenzene	**20.8**		µg/l		20.0		104	70-130	4	25
1,3-Dichlorobenzene	**21.9**		µg/l		20.0		110	70-130	2	25
1,4-Dichlorobenzene	**20.5**		µg/l		20.0		102	70-130	2	25
Dichlorodifluoromethane (Freon12)	**25.9**		µg/l		20.0		130	70-130	5	50
1,1-Dichloroethane	**20.3**		µg/l		20.0		101	70-130	2	25
1,2-Dichloroethane	**21.4**		µg/l		20.0		107	70-130	4	25
1,1-Dichloroethene	**21.2**		µg/l		20.0		106	70-130	1	25
cis-1,2-Dichloroethene	**20.4**		µg/l		20.0		102	70-130	2	25
trans-1,2-Dichloroethene	**20.9**		µg/l		20.0		105	70-130	0.05	25
1,2-Dichloropropane	**20.3**		µg/l		20.0		101	70-130	1	25
1,3-Dichloropropane	**20.0**		µg/l		20.0		100	70-130	0.5	25
2,2-Dichloropropane	**23.8**		µg/l		20.0		119	70-130	3	25
1,1-Dichloropropene	**20.1**		µg/l		20.0		100	70-130	4	25
cis-1,3-Dichloropropene	**21.8**		µg/l		20.0		109	70-130	0.7	25
trans-1,3-Dichloropropene	**22.2**		µg/l		20.0		111	70-130	2	25
Ethylbenzene	**21.3**		µg/l		20.0		106	70-130	5	25
Hexachlorobutadiene	**22.0**		µg/l		20.0		110	70-130	4	50

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1206227 - SW846 5030 Water MS										
LCS Dup (1206227-BSD1)					Prepared & Analyzed: 20-Mar-12					
2-Hexanone (MBK)	**16.3**		µg/l		20.0		82	70-130	8	25
Isopropylbenzene	**22.4**		µg/l		20.0		112	70-130	10	25
4-Isopropyltoluene	**21.9**		µg/l		20.0		110	70-130	5	25
Methyl tert-butyl ether	**18.6**		µg/l		20.0		93	70-130	5	25
4-Methyl-2-pentanone (MIBK)	**18.1**		µg/l		20.0		91	70-130	1	50
Methylene chloride	**20.9**		µg/l		20.0		104	70-130	3	25
Naphthalene	**17.1**		µg/l		20.0		85	70-130	4	25
n-Propylbenzene	**22.1**		µg/l		20.0		111	70-130	4	25
Styrene	**20.4**		µg/l		20.0		102	70-130	2	25
1,1,1,2-Tetrachloroethane	**21.1**		µg/l		20.0		106	70-130	4	25
1,1,2,2-Tetrachloroethane	**21.5**		µg/l		20.0		107	70-130	1	25
Tetrachloroethene	**21.2**		µg/l		20.0		106	70-130	4	25
Toluene	**20.7**		µg/l		20.0		104	70-130	2	25
1,2,3-Trichlorobenzene	**20.0**		µg/l		20.0		100	70-130	3	25
1,2,4-Trichlorobenzene	**19.6**		µg/l		20.0		98	70-130	1	25
1,3,5-Trichlorobenzene	**20.0**		µg/l		20.0		100	70-130	1	25
1,1,1-Trichloroethane	**25.9**		µg/l		20.0		129	70-130	5	25
1,1,2-Trichloroethane	**19.8**		µg/l		20.0		99	70-130	4	25
Trichloroethene	**21.2**		µg/l		20.0		106	70-130	4	25
Trichlorofluoromethane (Freon 11)	**25.0**		µg/l		20.0		125	70-130	6	50
1,2,3-Trichloropropane	**19.9**		µg/l		20.0		99	70-130	1	25
1,2,4-Trimethylbenzene	**21.4**		µg/l		20.0		107	70-130	0.09	25
1,3,5-Trimethylbenzene	**21.9**		µg/l		20.0		110	70-130	0.2	25
Vinyl chloride	**29.1**	QC2	µg/l		20.0		146	70-130	4	25
m,p-Xylene	**42.9**		µg/l		40.0		107	70-130	4	25
o-Xylene	**21.9**		µg/l		20.0		110	70-130	4	25
Tetrahydrofuran	**17.6**		µg/l		20.0		88	70-130	8	25
Ethyl ether	**19.2**		µg/l		20.0		96	70-130	0.7	50
Tert-amyl methyl ether	**18.9**		µg/l		20.0		95	70-130	1	25
Ethyl tert-butyl ether	**18.0**		µg/l		20.0		90	70-130	4	25
Di-isopropyl ether	**18.3**		µg/l		20.0		91	70-130	2	25
Tert-Butanol / butyl alcohol	**182**		µg/l		200		91	70-130	7	25
1,4-Dioxane	**171**		µg/l		200		85	70-130	11	25
trans-1,4-Dichloro-2-butene	**17.3**		µg/l		20.0		86	70-130	1	25
Ethanol	**381**		µg/l		400		95	70-130	1	30
Surrogate: 4-Bromofluorobenzene	*30.6*		µg/l		*30.0*		*102*	*70-130*		
Surrogate: Toluene-d8	*30.1*		µg/l		*30.0*		*100*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*32.1*		µg/l		*30.0*		*107*	*70-130*		
Surrogate: Dibromofluoromethane	*31.7*		µg/l		*30.0*		*106*	*70-130*		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1205932 - SW846 3545A										
Blank (1205932-BLK1)					Prepared & Analyzed: 16-Mar-12					
Aroclor-1016	< 20.0		µg/kg wet	20.0						
Aroclor-1016 [2C]	< 20.0		µg/kg wet	20.0						
Aroclor-1221	< 20.0		µg/kg wet	20.0						
Aroclor-1221 [2C]	< 20.0		µg/kg wet	20.0						
Aroclor-1232	< 20.0		µg/kg wet	20.0						
Aroclor-1232 [2C]	< 20.0		µg/kg wet	20.0						
Aroclor-1242	< 20.0		µg/kg wet	20.0						
Aroclor-1242 [2C]	< 20.0		µg/kg wet	20.0						
Aroclor-1248	< 20.0		µg/kg wet	20.0						
Aroclor-1248 [2C]	< 20.0		µg/kg wet	20.0						
Aroclor-1254	< 20.0		µg/kg wet	20.0						
Aroclor-1254 [2C]	< 20.0		µg/kg wet	20.0						
Aroclor-1260	< 20.0		µg/kg wet	20.0						
Aroclor-1260 [2C]	< 20.0		µg/kg wet	20.0						
Aroclor-1262	< 20.0		µg/kg wet	20.0						
Aroclor-1262 [2C]	< 20.0		µg/kg wet	20.0						
Aroclor-1268	< 20.0		µg/kg wet	20.0						
Aroclor-1268 [2C]	< 20.0		µg/kg wet	20.0						
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	*21.0*		µg/kg wet		*20.0*		*105*	*30-150*		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C]	*20.0*		µg/kg wet		*20.0*		*100*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr)	*20.0*		µg/kg wet		*20.0*		*100*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr) [2C]	*20.0*		µg/kg wet		*20.0*		*100*	*30-150*		
LCS (1205932-BS1)					Prepared & Analyzed: 16-Mar-12					
Aroclor-1016	**188**		µg/kg wet	20.0	250		75	50-140		
Aroclor-1016 [2C]	**212**		µg/kg wet	20.0	250		85	50-140		
Aroclor-1260	**183**		µg/kg wet	20.0	250		73	50-140		
Aroclor-1260 [2C]	**204**		µg/kg wet	20.0	250		82	50-140		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	*15.0*		µg/kg wet		*20.0*		*75*	*30-150*		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C]	*15.0*		µg/kg wet		*20.0*		*75*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr)	*15.0*		µg/kg wet		*20.0*		*75*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr) [2C]	*15.0*		µg/kg wet		*20.0*		*75*	*30-150*		
LCS Dup (1205932-BSD1)					Prepared & Analyzed: 16-Mar-12					
Aroclor-1016	**202**		µg/kg wet	20.0	250		81	50-140	7	30
Aroclor-1016 [2C]	**231**		µg/kg wet	20.0	250		92	50-140	9	30
Aroclor-1260	**189**		µg/kg wet	20.0	250		76	50-140	3	30
Aroclor-1260 [2C]	**208**		µg/kg wet	20.0	250		83	50-140	2	30
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	*16.0*		µg/kg wet		*20.0*		*80*	*30-150*		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C]	*16.0*		µg/kg wet		*20.0*		*80*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr)	*17.0*		µg/kg wet		*20.0*		*85*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr) [2C]	*16.0*		µg/kg wet		*20.0*		*80*	*30-150*		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1205933 - SW846 3545A										
Blank (1205933-BLK1)						Prepared: 16-Mar-12 Analyzed: 17-Mar-12				
C9-C18 Aliphatic Hydrocarbons	< 5.00		mg/kg wet	5.00						
C19-C36 Aliphatic Hydrocarbons	< 5.00		mg/kg wet	5.00						
C11-C22 Aromatic Hydrocarbons	< 5.00		mg/kg wet	5.00						
Unadjusted C11-C22 Aromatic Hydrocarbons	< 5.00		mg/kg wet	5.00						
Total Petroleum Hydrocarbons	< 5.00		mg/kg wet	5.00						
Unadjusted Total Petroleum Hydrocarbons	< 5.00		mg/kg wet	5.00						
Naphthalene	< 0.166		mg/kg wet	0.166						
2-Methylnaphthalene	< 0.166		mg/kg wet	0.166						
Acenaphthylene	< 0.166		mg/kg wet	0.166						
Acenaphthene	< 0.166		mg/kg wet	0.166						
Fluorene	< 0.166		mg/kg wet	0.166						
Phenanthrene	< 0.166		mg/kg wet	0.166						
Anthracene	< 0.166		mg/kg wet	0.166						
Fluoranthene	< 0.166		mg/kg wet	0.166						
Pyrene	< 0.166		mg/kg wet	0.166						
Benzo (a) anthracene	< 0.166		mg/kg wet	0.166						
Chrysene	< 0.166		mg/kg wet	0.166						
Benzo (b) fluoranthene	< 0.166		mg/kg wet	0.166						
Benzo (k) fluoranthene	< 0.166		mg/kg wet	0.166						
Benzo (a) pyrene	< 0.166		mg/kg wet	0.166						
Indeno (1,2,3-cd) pyrene	< 0.166		mg/kg wet	0.166						
Dibenzo (a,h) anthracene	< 0.166		mg/kg wet	0.166						
Benzo (g,h,i) perylene	< 0.166		mg/kg wet	0.166						
n-Nonane (C9)	< 0.166		mg/kg wet	0.166						
n-Decane	< 0.166		mg/kg wet	0.166						
n-Dodecane	< 0.166		mg/kg wet	0.166						
n-Tetradecane	< 0.166		mg/kg wet	0.166						
n-Hexadecane	< 0.166		mg/kg wet	0.166						
n-Octadecane	< 0.166		mg/kg wet	0.166						
n-Nonadecane	< 0.166		mg/kg wet	0.166						
n-Eicosane	< 0.166		mg/kg wet	0.166						
n-Docosane	< 0.166		mg/kg wet	0.166						
n-Tetracosane	< 0.166		mg/kg wet	0.166						
n-Hexacosane	< 0.166		mg/kg wet	0.166						
n-Octacosane	< 0.166		mg/kg wet	0.166						
n-Triacontane	< 0.166		mg/kg wet	0.166						
n-Hexatriacontane	< 0.166		mg/kg wet	0.166						
Naphthalene (aliphatic fraction)	**0.00**		mg/kg wet							
2-Methylnaphthalene (aliphatic fraction)	**0.00**		mg/kg wet							
Surrogate: 1-Chlorooctadecane	*2.47*		mg/kg wet		*3.33*		*74*	*40-140*		
Surrogate: Ortho-Terphenyl	*1.88*		mg/kg wet		*3.33*		*56*	*40-140*		
Surrogate: 2-Fluorobiphenyl	*1.69*		mg/kg wet		*2.67*		*63*	*40-140*		
LCS (1205933-BS1)						Prepared: 16-Mar-12 Analyzed: 17-Mar-12				
C9-C18 Aliphatic Hydrocarbons	**20.6**		mg/kg wet	5.00	40.0		52	40-140		
C19-C36 Aliphatic Hydrocarbons	**35.2**		mg/kg wet	5.00	53.3		66	40-140		
C11-C22 Aromatic Hydrocarbons	**62.0**		mg/kg wet	5.00	113		55	40-140		
Naphthalene	**2.70**		mg/kg wet	0.166	6.67		41	40-140		
2-Methylnaphthalene	**2.85**		mg/kg wet	0.166	6.67		43	40-140		
Acenaphthylene	**3.29**		mg/kg wet	0.166	6.67		49	40-140		
Acenaphthene	**3.47**		mg/kg wet	0.166	6.67		52	40-140		
Fluorene	**3.73**		mg/kg wet	0.166	6.67		56	40-140		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1205933 - SW846 3545A										
LCS (1205933-BS1)						Prepared: 16-Mar-12 Analyzed: 17-Mar-12				
Phenanthrene	**4.37**		mg/kg wet	0.166	6.67		66	40-140		
Anthracene	**3.60**		mg/kg wet	0.166	6.67		54	40-140		
Fluoranthene	**4.56**		mg/kg wet	0.166	6.67		68	40-140		
Pyrene	**4.39**		mg/kg wet	0.166	6.67		66	40-140		
Benzo (a) anthracene	**4.27**		mg/kg wet	0.166	6.67		64	40-140		
Chrysene	**4.45**		mg/kg wet	0.166	6.67		67	40-140		
Benzo (b) fluoranthene	**4.18**		mg/kg wet	0.166	6.67		63	40-140		
Benzo (k) fluoranthene	**4.44**		mg/kg wet	0.166	6.67		67	40-140		
Benzo (a) pyrene	**3.72**		mg/kg wet	0.166	6.67		56	40-140		
Indeno (1,2,3-cd) pyrene	**3.83**		mg/kg wet	0.166	6.67		58	40-140		
Dibenzo (a,h) anthracene	**3.93**		mg/kg wet	0.166	6.67		59	40-140		
Benzo (g,h,i) perylene	**4.12**		mg/kg wet	0.166	6.67		62	40-140		
n-Nonane (C9)	**2.11**		mg/kg wet	0.166	6.67		32	30-140		
n-Decane	**2.75**		mg/kg wet	0.166	6.67		41	40-140		
n-Dodecane	**3.28**		mg/kg wet	0.166	6.67		49	40-140		
n-Tetradecane	**3.86**		mg/kg wet	0.166	6.67		58	40-140		
n-Hexadecane	**4.34**		mg/kg wet	0.166	6.67		65	40-140		
n-Octadecane	**4.57**		mg/kg wet	0.166	6.67		68	40-140		
n-Nonadecane	**4.61**		mg/kg wet	0.166	6.67		69	40-140		
n-Eicosane	**4.64**		mg/kg wet	0.166	6.67		70	40-140		
n-Docosane	**4.62**		mg/kg wet	0.166	6.67		69	40-140		
n-Tetracosane	**4.52**		mg/kg wet	0.166	6.67		68	40-140		
n-Hexacosane	**4.50**		mg/kg wet	0.166	6.67		68	40-140		
n-Octacosane	**4.52**		mg/kg wet	0.166	6.67		68	40-140		
n-Triacontane	**4.34**		mg/kg wet	0.166	6.67		65	40-140		
n-Hexatriacontane	**4.03**		mg/kg wet	0.166	6.67		60	40-140		
Naphthalene (aliphatic fraction)	**0.00**		mg/kg wet					0-200		
2-Methylnaphthalene (aliphatic fraction)	**0.00**		mg/kg wet					0-200		
Surrogate: 1-Chlorooctadecane	*2.05*		mg/kg wet		*3.33*		*62*	*40-140*		
Surrogate: Ortho-Terphenyl	*2.25*		mg/kg wet		*3.33*		*67*	*40-140*		
Surrogate: 2-Fluorobiphenyl	*1.85*		mg/kg wet		*2.67*		*69*	*40-140*		
Naphthalene Breakthrough	0.00		%					0-5		
2-Methylnaphthalene Breakthrough	0.00		%					0-5		
LCS (1205933-BS2)						Prepared: 16-Mar-12 Analyzed: 17-Mar-12				
C9-C18 Aliphatic Hydrocarbons	**20.8**		mg/kg wet	5.00	40.0		52	40-140		
C19-C36 Aliphatic Hydrocarbons	**30.2**		mg/kg wet	5.00	53.3		57	40-140		
C11-C22 Aromatic Hydrocarbons	**56.0**		mg/kg wet	5.00	113		49	40-140		
Naphthalene	**2.96**		mg/kg wet	0.166	6.67		44	40-140		
2-Methylnaphthalene	**3.08**		mg/kg wet	0.166	6.67		46	40-140		
Acenaphthylene	**3.47**		mg/kg wet	0.166	6.67		52	40-140		
Acenaphthene	**3.57**		mg/kg wet	0.166	6.67		54	40-140		
Fluorene	**3.83**		mg/kg wet	0.166	6.67		57	40-140		
Phenanthrene	**4.11**		mg/kg wet	0.166	6.67		62	40-140		
Anthracene	**3.55**		mg/kg wet	0.166	6.67		53	40-140		
Fluoranthene	**4.06**		mg/kg wet	0.166	6.67		61	40-140		
Pyrene	**3.87**		mg/kg wet	0.166	6.67		58	40-140		
Benzo (a) anthracene	**3.81**		mg/kg wet	0.166	6.67		57	40-140		
Chrysene	**3.80**		mg/kg wet	0.166	6.67		57	40-140		
Benzo (b) fluoranthene	**3.66**		mg/kg wet	0.166	6.67		55	40-140		
Benzo (k) fluoranthene	**3.73**		mg/kg wet	0.166	6.67		56	40-140		
Benzo (a) pyrene	**3.16**		mg/kg wet	0.166	6.67		47	40-140		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1205933 - SW846 3545A										
LCS (1205933-BS2)					Prepared: 16-Mar-12 Analyzed: 17-Mar-12					
Indeno (1,2,3-cd) pyrene	**3.16**		mg/kg wet	0.166	6.67		47	40-140		
Dibenzo (a,h) anthracene	**3.16**		mg/kg wet	0.166	6.67		47	40-140		
Benzo (g,h,i) perylene	**3.37**		mg/kg wet	0.166	6.67		51	40-140		
n-Nonane (C9)	**2.70**		mg/kg wet	0.166	6.67		40	30-140		
n-Decane	**3.08**		mg/kg wet	0.166	6.67		46	40-140		
n-Dodecane	**3.36**		mg/kg wet	0.166	6.67		50	40-140		
n-Tetradecane	**3.77**		mg/kg wet	0.166	6.67		57	40-140		
n-Hexadecane	**4.09**		mg/kg wet	0.166	6.67		61	40-140		
n-Octadecane	**4.21**		mg/kg wet	0.166	6.67		63	40-140		
n-Nonadecane	**4.19**		mg/kg wet	0.166	6.67		63	40-140		
n-Eicosane	**4.14**		mg/kg wet	0.166	6.67		62	40-140		
n-Docosane	**4.06**		mg/kg wet	0.166	6.67		61	40-140		
n-Tetracosane	**3.96**		mg/kg wet	0.166	6.67		59	40-140		
n-Hexacosane	**3.97**		mg/kg wet	0.166	6.67		60	40-140		
n-Octacosane	**4.01**		mg/kg wet	0.166	6.67		60	40-140		
n-Triacontane	**3.89**		mg/kg wet	0.166	6.67		58	40-140		
n-Hexatriacontane	**3.71**		mg/kg wet	0.166	6.67		56	40-140		
Naphthalene (aliphatic fraction)	**0.00**		mg/kg wet					0-200		
2-Methylnaphthalene (aliphatic fraction)	**0.00**		mg/kg wet					0-200		
Surrogate: 1-Chlorooctadecane	*1.85*		mg/kg wet		*3.33*		*56*	*40-140*		
Surrogate: Ortho-Terphenyl	*2.04*		mg/kg wet		*3.33*		*61*	*40-140*		
Surrogate: 2-Fluorobiphenyl	*1.82*		mg/kg wet		*2.67*		*68*	*40-140*		
Naphthalene Breakthrough	0.00		%					0-5		
2-Methylnaphthalene Breakthrough	0.00		%					0-5		
LCS Dup (1205933-BSD1)					Prepared: 16-Mar-12 Analyzed: 17-Mar-12					
C9-C18 Aliphatic Hydrocarbons	**21.1**		mg/kg wet	5.00	40.0		53	40-140	3	25
C19-C36 Aliphatic Hydrocarbons	**39.7**		mg/kg wet	5.00	53.3		74	40-140	12	25
C11-C22 Aromatic Hydrocarbons	**68.0**		mg/kg wet	5.00	113		60	40-140	9	25
Naphthalene	**3.16**		mg/kg wet	0.166	6.67		47	40-140	15	25
2-Methylnaphthalene	**3.31**		mg/kg wet	0.166	6.67		50	40-140	15	25
Acenaphthylene	**3.76**		mg/kg wet	0.166	6.67		56	40-140	13	25
Acenaphthene	**3.96**		mg/kg wet	0.166	6.67		59	40-140	13	25
Fluorene	**4.22**		mg/kg wet	0.166	6.67		63	40-140	12	25
Phenanthrene	**4.80**		mg/kg wet	0.166	6.67		72	40-140	9	25
Anthracene	**3.99**		mg/kg wet	0.166	6.67		60	40-140	10	25
Fluoranthene	**4.94**		mg/kg wet	0.166	6.67		74	40-140	8	25
Pyrene	**4.79**		mg/kg wet	0.166	6.67		72	40-140	9	25
Benzo (a) anthracene	**4.81**		mg/kg wet	0.166	6.67		72	40-140	12	25
Chrysene	**4.76**		mg/kg wet	0.166	6.67		71	40-140	7	25
Benzo (b) fluoranthene	**4.53**		mg/kg wet	0.166	6.67		68	40-140	8	25
Benzo (k) fluoranthene	**4.76**		mg/kg wet	0.166	6.67		71	40-140	7	25
Benzo (a) pyrene	**4.06**		mg/kg wet	0.166	6.67		61	40-140	9	25
Indeno (1,2,3-cd) pyrene	**4.26**		mg/kg wet	0.166	6.67		64	40-140	11	25
Dibenzo (a,h) anthracene	**4.22**		mg/kg wet	0.166	6.67		63	40-140	7	25
Benzo (g,h,i) perylene	**4.40**		mg/kg wet	0.166	6.67		66	40-140	7	25
n-Nonane (C9)	**2.15**		mg/kg wet	0.166	6.67		32	30-140	2	25
n-Decane	**2.81**		mg/kg wet	0.166	6.67		42	40-140	2	25
n-Dodecane	**3.37**		mg/kg wet	0.166	6.67		51	40-140	3	25
n-Tetradecane	**4.05**		mg/kg wet	0.166	6.67		61	40-140	5	25
n-Hexadecane	**4.62**		mg/kg wet	0.166	6.67		69	40-140	6	25
n-Octadecane	**4.88**		mg/kg wet	0.166	6.67		73	40-140	7	25

Extractable Petroleum Hydrocarbons - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1205933 - SW846 3545A										
LCS Dup (1205933-BSD1)					Prepared: 16-Mar-12 Analyzed: 17-Mar-12					
n-Nonadecane	**4.93**		mg/kg wet	0.166	6.67		74	40-140	7	25
n-Eicosane	**4.97**		mg/kg wet	0.166	6.67		75	40-140	7	25
n-Docosane	**4.98**		mg/kg wet	0.166	6.67		75	40-140	7	25
n-Tetracosane	**4.90**		mg/kg wet	0.166	6.67		73	40-140	8	25
n-Hexacosane	**4.90**		mg/kg wet	0.166	6.67		74	40-140	8	25
n-Octacosane	**4.93**		mg/kg wet	0.166	6.67		74	40-140	9	25
n-Triacontane	**4.72**		mg/kg wet	0.166	6.67		71	40-140	8	25
n-Hexatriacontane	**4.40**		mg/kg wet	0.166	6.67		66	40-140	9	25
Naphthalene (aliphatic fraction)	**0.00**		mg/kg wet					0-200		200
2-Methylnaphthalene (aliphatic fraction)	**0.00**		mg/kg wet					0-200		200
Surrogate: 1-Chlorooctadecane	*2.28*		mg/kg wet		*3.33*		*69*	*40-140*		
Surrogate: Ortho-Terphenyl	*2.49*		mg/kg wet		*3.33*		*75*	*40-140*		
Surrogate: 2-Fluorobiphenyl	*1.89*		mg/kg wet		*2.67*		*71*	*40-140*		
Naphthalene Breakthrough	0.00		%					0-5		
2-Methylnaphthalene Breakthrough	0.00		%					0-5		

Soluble Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1206039 - SW846 3005A										
Blank (1206039-BLK1)					Prepared: 16-Mar-12 Analyzed: 17-Mar-12					
Selenium	< 0.0150		mg/l	0.0150						
Lead	< 0.0075		mg/l	0.0075						
Chromium	< 0.0050		mg/l	0.0050						
Cadmium	< 0.0025		mg/l	0.0025						
Barium	< 0.0050		mg/l	0.0050						
Arsenic	< 0.0040		mg/l	0.0040						
Silver	< 0.0050		mg/l	0.0050						
LCS (1206039-BS1)					Prepared: 16-Mar-12 Analyzed: 17-Mar-12					
Selenium	**1.23**		mg/l	0.0150	1.25		99	85-115		
Lead	**1.19**		mg/l	0.0075	1.25		95	85-115		
Chromium	**1.23**		mg/l	0.0050	1.25		99	85-115		
Cadmium	**1.23**		mg/l	0.0025	1.25		99	85-115		
Barium	**1.29**		mg/l	0.0050	1.25		103	85-115		
Arsenic	**1.26**		mg/l	0.0040	1.25		100	85-115		
Silver	**1.22**		mg/l	0.0050	1.25		98	85-115		
LCS Dup (1206039-BSD1)					Prepared: 16-Mar-12 Analyzed: 17-Mar-12					
Lead	**1.19**		mg/l	0.0075	1.25		96	85-115	0.5	20
Selenium	**1.23**		mg/l	0.0150	1.25		98	85-115	0.3	20
Barium	**1.28**		mg/l	0.0050	1.25		102	85-115	0.8	20
Chromium	**1.25**		mg/l	0.0050	1.25		100	85-115	1	20
Cadmium	**1.23**		mg/l	0.0025	1.25		99	85-115	0.05	20
Arsenic	**1.25**		mg/l	0.0040	1.25		100	85-115	0.8	20
Silver	**1.23**		mg/l	0.0050	1.25		98	85-115	0.4	20
Duplicate (1206039-DUP1)			**Source: SB45430-04**		Prepared: 16-Mar-12 Analyzed: 17-Mar-12					
Lead	< 0.0075		mg/l	0.0075		BRL				20
Selenium	< 0.0150		mg/l	0.0150		BRL				20
Cadmium	**0.0008**	J,QR8	mg/l	0.0025		0.0010			22	20
Chromium	< 0.0050		mg/l	0.0050		BRL				20
Barium	**0.0877**		mg/l	0.0050		0.0881			0.5	20
Arsenic	**0.0251**		mg/l	0.0040		0.0252			0.6	20
Silver	< 0.0050		mg/l	0.0050		BRL				20
Matrix Spike (1206039-MS1)			**Source: SB45430-04**		Prepared: 16-Mar-12 Analyzed: 17-Mar-12					
Selenium	**1.25**		mg/l	0.0150	1.25	BRL	100	75-125		
Lead	**1.18**		mg/l	0.0075	1.25	BRL	95	75-125		
Arsenic	**1.30**		mg/l	0.0040	1.25	0.0252	102	75-125		
Chromium	**1.23**		mg/l	0.0050	1.25	BRL	98	75-125		
Barium	**1.37**		mg/l	0.0050	1.25	0.0881	103	75-125		
Silver	**1.24**		mg/l	0.0050	1.25	BRL	99	75-125		
Cadmium	**1.22**		mg/l	0.0025	1.25	0.0010	98	75-125		
Matrix Spike Dup (1206039-MSD1)			**Source: SB45430-04**		Prepared: 16-Mar-12 Analyzed: 17-Mar-12					
Lead	**1.19**		mg/l	0.0075	1.25	BRL	95	75-125	0.5	20
Selenium	**1.27**		mg/l	0.0150	1.25	BRL	102	75-125	2	20
Silver	**1.20**		mg/l	0.0050	1.25	BRL	96	75-125	3	20
Arsenic	**1.33**		mg/l	0.0040	1.25	0.0252	104	75-125	2	20
Barium	**1.43**		mg/l	0.0050	1.25	0.0881	107	75-125	4	20
Cadmium	**1.26**		mg/l	0.0025	1.25	0.0010	100	75-125	3	20
Chromium	**1.25**		mg/l	0.0050	1.25	BRL	100	75-125	2	20
Post Spike (1206039-PS1)			**Source: SB45430-04**		Prepared: 16-Mar-12 Analyzed: 17-Mar-12					
Selenium	**1.36**		mg/l	0.0150	1.25	BRL	109	80-120		
Lead	**1.27**		mg/l	0.0075	1.25	BRL	102	80-120		
Cadmium	**1.32**		mg/l	0.0025	1.25	0.0010	105	80-120		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1206039 - SW846 3005A										
Post Spike (1206039-PS1)			**Source: SB45430-04**			Prepared: 16-Mar-12 Analyzed: 17-Mar-12				
Silver	**1.22**		mg/l	0.0050	1.25	BRL	98	80-120		
Barium	**1.46**		mg/l	0.0050	1.25	0.0881	110	80-120		
Chromium	**1.31**		mg/l	0.0050	1.25	BRL	105	80-120		
Arsenic	**1.42**		mg/l	0.0040	1.25	0.0252	112	80-120		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1206040 - EPA200/SW7000 Series										
Blank (1206040-BLK1)						Prepared: 16-Mar-12 Analyzed: 19-Mar-12				
Mercury	< 0.00020		mg/l	0.00020						
LCS (1206040-BS1)						Prepared: 16-Mar-12 Analyzed: 19-Mar-12				
Mercury	**0.00463**		mg/l	0.00020	0.00500		93	85-115		
Duplicate (1206040-DUP1)			**Source: SB45430-04**			Prepared: 16-Mar-12 Analyzed: 19-Mar-12				
Mercury	< 0.00020		mg/l	0.00020		BRL				20
Matrix Spike (1206040-MS1)			**Source: SB45430-04**			Prepared: 16-Mar-12 Analyzed: 19-Mar-12				
Mercury	**0.00475**		mg/l	0.00020	0.00500	BRL	95	80-120		
Matrix Spike Dup (1206040-MSD1)			**Source: SB45430-04**			Prepared: 16-Mar-12 Analyzed: 19-Mar-12				
Mercury	**0.00475**		mg/l	0.00020	0.00500	BRL	95	80-120	0	20
Post Spike (1206040-PS1)			**Source: SB45430-04**			Prepared: 16-Mar-12 Analyzed: 19-Mar-12				
Mercury	**0.00471**		mg/l	0.00020	0.00500	BRL	94	85-115		

Extractable Petroleum Hydrocarbons - CCV Evaluation Report

Analyte(s)	Average RF	CCRF	% D		Limit
Batch S203043					
Calibration Check (S203043-CCV1)					
C9-C18 Aliphatic Hydrocarbons	2.246762E+08	2.05038E+08	-3.0		25
C19-C36 Aliphatic Hydrocarbons	3.194745E+08	1.972023E+08	-11.0		25
Unadjusted C11-C22 Aromatic Hydrocarbons	20.1391	17.96587	2.4		25
Naphthalene	5.977356	7.058799	18.1		25
2-Methylnaphthalene	4.143227	4.899704	18.3		25
Acenaphthylene	6.177069	7.005576	13.4		25
Acenaphthene	4.106346	4.588243	11.7		25
Fluorene	4.44248	4.913211	10.6		25
Phenanthrene	5.928248	6.347136	7.1		25
Anthracene	6.452543	6.453039	0.008		25
Fluoranthene	6.444669	6.699824	4.0		25
Pyrene	6.871395	6.989217	1.7		25
Benzo (a) anthracene	5.816965	5.963064	2.5		25
Chrysene	6.622077	6.481264	-2.1		25
Benzo (b) fluoranthene	5.085807	5.338908	5.0		25
Benzo (k) fluoranthene	7.144244	6.800473	-4.8		25
Benzo (a) pyrene	6.051832	5.847009	-3.4		25
Indeno (1,2,3-cd) pyrene	6.413955	6.095178	-5.0		25
Dibenzo (a,h) anthracene	5.333256	4.856399	-8.9		25
Benzo (g,h,i) perylene	5.452775	5.094289	-6.6		25
n-Nonane (C9)	208770.2	201507.6	-3.5		30
n-Decane	207562.7	200869.2	-3.2		25
n-Dodecane	205872.2	200638.6	-2.5		25
n-Tetradecane	203563.3	200927	-1.3		25
n-Hexadecane	202270.4	200487.4	-0.9		25
n-Octadecane	196922.5	193999	-1.5		25
n-Nonadecane	193536.3	189034.4	-2.3		25
n-Eicosane	188848.2	182067.6	-3.6		25
n-Docosane	184035.6	174260.3	-5.3		25
n-Tetracosane	180606.5	166625.5	-7.7		25
n-Hexacosane	179194.9	165134.7	-7.8		25
n-Octacosane	175341.2	162025.3	-7.6		25
n-Triacontane	180784.2	158998.3	-12.1		25
n-Hexatriacontane	179954.4	119691.2	-33.5	#	25
Calibration Check (S203043-CCV2)					
C9-C18 Aliphatic Hydrocarbons	2.246762E+08	2.131618E+08	0.8		25
C19-C36 Aliphatic Hydrocarbons	3.194745E+08	2.160391E+08	-0.4		25
Unadjusted C11-C22 Aromatic Hydrocarbons	20.1391	17.49304	-0.6		25
Naphthalene	5.977356	6.178791	3.4		25
2-Methylnaphthalene	4.143227	4.395498	6.1		25
Acenaphthylene	6.177069	6.542752	5.9		25
Acenaphthene	4.106346	4.336538	5.6		25
Fluorene	4.44248	4.718714	6.2		25
Phenanthrene	5.928248	6.15605	3.8		25
Anthracene	6.452543	6.085128	-5.7		25
Fluoranthene	6.444669	6.447191	0.04		25
Pyrene	6.871395	6.804421	-1.0		25
Benzo (a) anthracene	5.816965	6.034481	3.7		25
Chrysene	6.622077	6.28979	-5.0		25
Benzo (b) fluoranthene	5.085807	5.616711	10.4		25
Benzo (k) fluoranthene	7.144244	6.504751	-9.0		25

Extractable Petroleum Hydrocarbons - CCV Evaluation Report

Analyte(s)	Average RF	CCRF	% D	Limit
Batch S203043				
Calibration Check (S203043-CCV2)				
Benzo (a) pyrene	6.051832	5.847091	-3.4	25
Indeno (1,2,3-cd) pyrene	6.413955	6.285724	-2.0	25
Dibenzo (a,h) anthracene	5.333256	5.200864	-2.5	25
Benzo (g,h,i) perylene	5.452775	5.33201	-2.2	25
n-Nonane (C9)	208770.2	208105.8	-0.3	30
n-Decane	207562.7	207936.4	0.2	25
n-Dodecane	205872.2	207464.8	0.8	25
n-Tetradecane	203563.3	207624.7	2.0	25
n-Hexadecane	202270.4	207029.7	2.4	25
n-Octadecane	196922.5	201625.4	2.4	25
n-Nonadecane	193536.3	198534.3	2.6	25
n-Eicosane	188848.2	193817.8	2.6	25
n-Docosane	184035.6	188757.3	2.6	25
n-Tetracosane	180606.5	181114.4	0.3	25
n-Hexacosane	179194.9	178511.3	-0.4	25
n-Octacosane	175341.2	174099.8	-0.7	25
n-Triacontane	180784.2	169418.3	-6.3	25
n-Hexatriacontane	179954.4	135604.7	-24.6	25

Notes and Definitions

GS1	Sample dilution required for high concentration of target analytes to be within the instrument calibration range.
QC2	Analyte out of acceptance range in QC spike but no reportable concentration present in sample.
QM9	The spike recovery for this QC sample is outside the established control limits. The sample results for the QC batch were accepted based on LCS/LCSD or SRM recoveries within the control limits.
QR5	RPD out of acceptance range.
QR8	Analyses are not controlled on RPD values from sample concentrations that are less than 5 times the reporting level. The batch is accepted based upon the difference between the sample and duplicate is less than or equal to the reporting limit.
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference
J	Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).

A Matrix Spike and Matrix Spike Duplicate (MS/MSD) for MADEP EPH CAM may not have been analyzed with the samples in this work order. According to the method these spikes are performed only when requested by the client. If requested the spike recoveries are included in the batch QC data.

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

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

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

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

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

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

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

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

Validated by:
Nicole Leja
Rebecca Merz

SB45430 DLC

SPECTRUM ANALYTICAL, INC.
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HANIBAL TECHNOLOGY

CHAIN OF CUSTODY RECORD

Page 1 of 1

Special Handling:
- ☐ Standard TAT - 7 to 10 business days
- ☒ Rush TAT - Date Needed: 3/20/12
- All TATs subject to laboratory approval. Min. 24-hour notification needed for rushes.
- Samples disposed of after 60 days unless otherwise instructed.

Report To: OTC
253 Bridge St Suite 320
Springfield, MA 01103

Project Mgr.: Val Dillinghast

Invoice To: OTC

P.O. No.: _____ RQN: _____

Project No.: 1753-03-01
Site Name: Lunt Silversmith
Location: Green Field State: MA
Sampler(s): B. Thompson

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

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

G=Grab C=Composite

Lab Id:	Sample Id:	Date:	Time:	Type	Matrix	Preservative	Containers: # of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Analyses: PCBs	EPH	VOCs 8260	PAHs-8					QA Reporting Notes: (check if needed)
SB45430-01	Transformer	3/15/12		C	SO	9		1			X	X							☒ Provide MA DEP MCP CAM Report ☐ Provide CT DPH RCP Report **QA/QC Reporting Level** ☒ Standard ☐ No QC ☐ Other _____ State specific reporting standards: _____
02	CB-1	↓		G	GW	2	3						X						
03	CB-2			G	GW	2	3						X	← no BMW 3/15/12					
04	LS-19			G	GW	4				1				X					was field filtered

☐ Fax results when available to (_____) _____
☒ E-mail to tillinghast@otcenv.com
EDD Format _____
Condition upon receipt: ☒ Iced ☐ Ambient ☐ °C 3.6

Relinquished by:	Received by:	Date:	Time:
		3/15/12	1238

Report Date:
02-Apr-12 16:12

☐ Final Report
☐ Re-Issued Report
☑ Revised Report

SPECTRUM ANALYTICAL, INC.
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HANIBAL TECHNOLOGY

Laboratory Report

O'Reilly, Talbot & Okun
293 Bridge Street; Suite 500
Springfield, MA 01103
Attn: Val Tillinghast

Project: Lunt - MA
Project #: 1753-03-01

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
SB42546-01	LS-6 4-6'	Soil	11-Jan-12 10:45	16-Jan-12 14:50
SB42546-02	LS-7 2-4'	Soil	11-Jan-12 11:10	16-Jan-12 14:50
SB42546-03	LS-8 4-6'	Soil	11-Jan-12 11:45	16-Jan-12 14:50
SB42546-04	LS-9 5-6'	Soil	11-Jan-12 12:30	16-Jan-12 14:50
SB42546-05	LS-11 4-6'	Soil	11-Jan-12 12:55	16-Jan-12 14:50
SB42546-06	LS-14 0-2'	Soil	11-Jan-12 14:15	16-Jan-12 14:50
SB42546-07	LS-14 6-8'	Soil	11-Jan-12 14:30	16-Jan-12 14:50
SB42546-08	LS-15 0-2'	Soil	11-Jan-12 14:45	16-Jan-12 14:50
SB42546-09	LS-15 4-6'	Soil	11-Jan-12 14:55	16-Jan-12 14:50
SB42546-10	LS-17 6-8'	Soil	11-Jan-12 15:28	16-Jan-12 14:50
SB42546-11	LS-19 7-9'	Soil	12-Jan-12 13:00	16-Jan-12 14:50
SB42546-12	LS-20 1-3'	Soil	12-Jan-12 13:25	16-Jan-12 14:50

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

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

Authorized by:

Nicole Leja
Laboratory Director

Spectrum Analytical holds certification in the State of Massachusetts for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of Massachusetts does not offer certification for all analytes.
Please note that this report contains 73 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Spectrum Analytical, Inc.

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

The following outlines the condition of all VPH samples contained within this report upon laboratory receipt.

Matrices	Soil		
Containers	✓ Satisfactory		
Sample Preservative	**Aqueous** (acid preserved)	✓ N/A pH≤2 pH>2	
	Soil or Sediment	N/A ✓ Samples not received in Methanol	ml Methanol/g soil 1:1 +/-25% ✓ Other
		✓ Samples received in Methanol: ✓ covering soil/sediment not covering soil/sediment	
		✓ Samples received in air-tight container	
Temperature	✓ Received on ice Received at 4 ± 2 ºC ✓ Other: 0.8ºC		

Were all QA/QC procedures followed as required by the VPH method? *Yes*
Were any significant modifications made to the VPH method as specified in section 11.3? *No*
Were all performance/acceptance standards for required QA/QC procedures achieved? *Yes*

The following outlines the condition of all EPH samples contained within this report upon laboratory receipt.

Matrices	Soil
Containers	✓ Satisfactory
Aqueous Preservative	✓ N/A pH≤2 pH>2 pH adjusted to <2 in lab
Temperature	✓ Received on ice Received at 4 ± 2 ºC ✓ Other: 0.8ºC

Were all QA/QC procedures followed as required by the EPH method? *Yes*
Were any significant modifications made to the EPH method as specified in Section 11.3? *No*
Were all performance/acceptance standards for required QA/QC procedures achieved? *Yes*

I attest that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Authorized by:

Nicole Leja
Laboratory Director

MassDEP Analytical Protocol Certification Form

Laboratory Name: Spectrum Analytical, Inc.	**Project #:** 1753-03-01
Project Location: Lunt - MA	**RTN:**
This form provides certifications for the following data set:	SB42546-01 through SB42546-12
Matrices: Soil	

CAM Protocol

✓ 8260 VOC CAM II A	✓ 7470/7471 Hg CAM III B	✓ MassDEP VPH CAM IV A	8081 Pesticides CAM V B	7196 Hex Cr CAM VI B	MassDEP APH CAM IX A
8270 SVOC CAM II B	7010 Metals CAM III C	✓ MassDEP EPH CAM IV B	8151 Herbicides CAM V C	8330 Explosives CAM VIII A	TO-15 VOC CAM IX B
✓ 6010 Metals CAM III A	6020 Metals CAM III D	✓ 8082 PCB CAM V A	9012 Total Cyanide/PAC CAM VI A	9014 Total Cyanide/PAC CAM VI A	6860 Perchlorate CAM VIII B

Affirmative responses to questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain of Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	Yes ✓ No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	✓ Yes No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	✓ Yes No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	✓ Yes No
E	a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	✓ Yes No Yes No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to questions A through E)?	✓ Yes No

Responses to questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	Yes ✓ No

<u>Data User Note:</u> Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.

H	Were all QC performance standards specified in the CAM protocol(s) achieved?	Yes ✓ No
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	✓ Yes No

All negative responses are addressed in a case narrative on the cover page of this report.

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

Nicole Leja
Laboratory Director
Date: 4/2/2012

CASE NARRATIVE:

The samples were received 0.8 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/- 1.0 degrees Celsius was used immediately upon receipt of the samples.

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

MADEP has published a list of analytical methods (CAM) which provides a series of recommended protocols for the acquisition, analysis and reporting of analytical data in support of MCP decisions. "Presumptive Certainty" can be established only for those methods published by the MADEP in the MCP CAM. The compounds and/or elements reported were specifically requested by the client on the Chain of Custody and in some cases may not include the full analyte list as defined in the method. Regulatory limits may not be achieved if specific method and/or technique was not requested on the Chain of Custody.

According to WSC-CAM 5/2009 Rev.1, Table 11 A-1, recovery for some VOC analytes have been deemed potentially difficult. Although they may still be within the recommended recovery range, a range has been set based on historical control limits.

Some target analytes which are not listed as exceptions in the Summary of CAM Reporting Limits may exceed the recommended RL based on sample initial volume or weight provided, % moisture content, or responsiveness of a particular analyte to purge and trap instrumentation.

All VOC soils samples submitted and analyzed in methanol will have a minimum dilution factor of 50. This is the minimum amount of solvent allowed on the instrumentation without causing interference. Additional dilution factors may be required to keep analyte concentration within instrument calibration.

Method SW846 5035A is designed to use on samples containing low levels of VOCs, ranging from 0.5 to 200 ug/Kg. Target analytes that are less responsive to purge and trap may be present at concentrations over 200ug/Kg but may not be reportable in the methanol preserved vial (SW846 5030). This is the result of the inherent dilution factor required for the methanol preservation.

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

MADEP VPH 5/2004 Rev. 1.1

Laboratory Control Samples:

1201825-BSD1

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

n-Decane

Samples:

SB42546-04 *LS-9 5-6'*

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

The VOC preserved soil sample is not within the 1:1 weight to volume ratio as recommended by SW846 methods 5030 and 5035 but may be within the 1:1 volume to volume ratio. This variance may affect the final reporting limit.

SB42546-07 *LS-14 6-8'*

The VOC preserved soil sample is not within the 1:1 weight to volume ratio as recommended by SW846 methods 5030 and 5035 but may be within the 1:1 volume to volume ratio. This variance may affect the final reporting limit.

SB42546-10 *LS-17 6-8'*

The VOC preserved soil sample is not within the 1:1 weight to volume ratio as recommended by SW846 methods 5030 and 5035 but may be within the 1:1 volume to volume ratio. This variance may affect the final reporting limit.

SB42546-11 *LS-19 7-9'*

MADEP VPH 5/2004 Rev. 1.1

Samples:

SB42546-11 *LS-19 7-9'*

The VOC preserved soil sample is not within the 1:1 weight to volume ratio as recommended by SW846 methods 5030 and 5035 but may be within the 1:1 volume to volume ratio. This variance may affect the final reporting limit.

SW846 6010C

Samples:

SB42546-12 *LS-20 1-3'*

The Reporting Limit has been raised to account for matrix interference.

Selenium

SW846 8260C

Calibration:

1201020

Analyte quantified by quadratic equation type calibration.

Naphthalene
trans-1,4-Dichloro-2-butene

This affected the following samples:

1201366-BLK1
1201366-BS1
1201366-BSD1
LS-14 6-8'
LS-17 6-8'
LS-19 7-9'
S200348-ICV1
S200779-CCV1

1201033

Analyte quantified by quadratic equation type calibration.

1,2-Dibromo-3-chloropropane
Bromodichloromethane
Bromoform
Carbon disulfide
Carbon tetrachloride
cis-1,3-Dichloropropene
Dibromochloromethane
trans-1,3-Dichloropropene

This affected the following samples:

S200714-ICV1

Laboratory Control Samples:

1201366 BS/BSD

4-Methyl-2-pentanone (MIBK) percent recoveries (131/134) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

LS-14 6-8'
LS-17 6-8'
LS-19 7-9'

SW846 8260C

Laboratory Control Samples:

1201366 BS/BSD

Ethanol percent recoveries (131/123) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

LS-14 6-8'
LS-17 6-8'
LS-19 7-9'

1201627 BS/BSD

Chloromethane percent recoveries (105/133) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

LS-14 6-8'
LS-17 6-8'
LS-19 7-9'

1201751 BS/BSD

Chloromethane percent recoveries (109/140) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

LS-20 1-3'

Spikes:

1201627-MS1 *Source: SB42546-12*

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

2-Butanone (MEK)

The spike recovery was outside of QC acceptance limits for the MS, MSD and/or PS due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.

Trichloroethene

1201627-MSD1 *Source: SB42546-12*

RPD out of acceptance range.

2-Butanone (MEK)

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

cis-1,2-Dichloroethene

The spike recovery was outside of QC acceptance limits for the MS, MSD and/or PS due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.

Trichloroethene

Samples:

S200847-CCV1

SW846 8260C

Samples:

S200847-CCV1

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

2,2-Dichloropropane (-20.6%)
Acetone (-20.9%)
Acrylonitrile (-21.1%)
Chloromethane (-23.9%)
Dichlorodifluoromethane (Freon12) (-25.4%)
Ethanol (-20.5%)
Tert-Butanol / butyl alcohol (-23.5%)
Tetrahydrofuran (-22.2%)

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

Carbon disulfide (-20.8%)
Tert-amyl methyl ether (-21.5%)

This affected the following samples:

1201627-BLK1
1201627-BS1
1201627-BSD1
1201627-MS1
1201627-MSD1
LS-14 6-8'
LS-17 6-8'
LS-19 7-9'

S200923-CCV1

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

1,1,1-Trichloroethane (20.3%)

This affected the following samples:

1201751-BLK1
1201751-BS1
1201751-BSD1
LS-20 1-3'

SB42546-07 *LS-14 6-8'*

The concentration indicated for this analyte is an estimated value. This value is considered an estimate (CLP E-flag).

Trichloroethene

SB42546-07RE1 *LS-14 6-8'*

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

SB42546-10 *LS-17 6-8'*

The concentration indicated for this analyte is an estimated value. This value is considered an estimate (CLP E-flag).

Trichloroethene

SB42546-10RE1 *LS-17 6-8'*

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

SB42546-11 *LS-19 7-9'*

SW846 8260C

Samples:

SB42546-11 *LS-19 7-9'*

The concentration indicated for this analyte is an estimated value. This value is considered an estimate (CLP E-flag).

cis-1,2-Dichloroethene
Tetrachloroethene
Trichloroethene

SB42546-11RE1 *LS-19 7-9'*

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

SB42546-12RE1 *LS-20 1-3'*

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

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-6 4-6' SB42546-01	1753-03-01	Soil	11-Jan-12 10:45	16-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Extractable Petroleum Hydrocarbons													
EPH Aliphatic/Aromatic Ranges													
Prepared by method SW846 3545A													
	C9-C18 Aliphatic Hydrocarbons	< 12.6		mg/kg dry	12.6	1.86	1	MADEP EPH 5/2004 R	18-Jan-12	24-Jan-12	MP	1201380	
	C19-C36 Aliphatic Hydrocarbons	< 12.6		mg/kg dry	12.6	6.18	1	"	"	"	"	"	
	C11-C22 Aromatic Hydrocarbons	< 12.6		mg/kg dry	12.6	4.58	1	"	"	"	"	"	
	Unadjusted C11-C22 Aromatic Hydrocarbons	< 12.6		mg/kg dry	12.6	4.58	1	"	"	"	"	"	
	Total Petroleum Hydrocarbons	< 12.6		mg/kg dry	12.6	12.6	1	"	"	"	"	"	
	Unadjusted Total Petroleum Hydrocarbons	< 12.6		mg/kg dry	12.6	12.6	1	"	"	"	"	"	
EPH Target PAH Analytes													
Prepared by method SW846 3545A													
91-20-3	Naphthalene	< 0.421		mg/kg dry	0.421	0.220	1	"	"	"	"	"	
91-57-6	2-Methylnaphthalene	< 0.421		mg/kg dry	0.421	0.220	1	"	"	"	"	"	
208-96-8	Acenaphthylene	< 0.421		mg/kg dry	0.421	0.247	1	"	"	"	"	"	
83-32-9	Acenaphthene	< 0.421		mg/kg dry	0.421	0.246	1	"	"	"	"	"	
86-73-7	Fluorene	< 0.421		mg/kg dry	0.421	0.249	1	"	"	"	"	"	
85-01-8	Phenanthrene	< 0.421		mg/kg dry	0.421	0.287	1	"	"	"	"	"	
120-12-7	Anthracene	< 0.421		mg/kg dry	0.421	0.312	1	"	"	"	"	"	
206-44-0	Fluoranthene	< 0.421		mg/kg dry	0.421	0.282	1	"	"	"	"	"	
129-00-0	Pyrene	< 0.421		mg/kg dry	0.421	0.304	1	"	"	"	"	"	
56-55-3	Benzo (a) anthracene	< 0.421		mg/kg dry	0.421	0.305	1	"	"	"	"	"	
218-01-9	Chrysene	< 0.421		mg/kg dry	0.421	0.328	1	"	"	"	"	"	
205-99-2	Benzo (b) fluoranthene	< 0.421		mg/kg dry	0.421	0.375	1	"	"	"	"	"	
207-08-9	Benzo (k) fluoranthene	< 0.421		mg/kg dry	0.421	0.351	1	"	"	"	"	"	
50-32-8	Benzo (a) pyrene	< 0.421		mg/kg dry	0.421	0.283	1	"	"	"	"	"	
193-39-5	Indeno (1,2,3-cd) pyrene	< 0.421		mg/kg dry	0.421	0.374	1	"	"	"	"	"	
53-70-3	Dibenzo (a,h) anthracene	< 0.421		mg/kg dry	0.421	0.305	1	"	"	"	"	"	
191-24-2	Benzo (g,h,i) perylene	< 0.421		mg/kg dry	0.421	0.315	1	"	"	"	"	"	
Surrogate recoveries:													
3386-33-2	*1-Chlorooctadecane*	*43*			*40-140 %*			"	"	"	"	"	
84-15-1	*Ortho-Terphenyl*	*53*			*40-140 %*			"	"	"	"	"	
321-60-8	*2-Fluorobiphenyl*	*66*			*40-140 %*			"	"	"	"	"	
General Chemistry Parameters													
	% Solids	78.3		%			1	SM2540 G Mod.	17-Jan-12	17-Jan-12	DT	1201291	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-7 2-4' SB42546-02	1753-03-01	Soil	11-Jan-12 11:10	16-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Extractable Petroleum Hydrocarbons													
EPH Aliphatic/Aromatic Ranges													
Prepared by method SW846 3545A													
	C9-C18 Aliphatic Hydrocarbons	< 11.5		mg/kg dry	11.5	1.69	1	MADEP EPH 5/2004 R	18-Jan-12	26-Jan-12	MWP	1201380	
	C19-C36 Aliphatic Hydrocarbons	< 11.5		mg/kg dry	11.5	5.61	1	"	"	"	"	"	
	C11-C22 Aromatic Hydrocarbons	< 11.5		mg/kg dry	11.5	4.15	1	"	"	"	"	"	
	Unadjusted C11-C22 Aromatic Hydrocarbons	< 11.5		mg/kg dry	11.5	4.15	1	"	"	"	"	"	
	Total Petroleum Hydrocarbons	< 11.5		mg/kg dry	11.5	11.5	1	"	"	"	"	"	
	Unadjusted Total Petroleum Hydrocarbons	< 11.5		mg/kg dry	11.5	11.5	1	"	"	"	"	"	
EPH Target PAH Analytes													
Prepared by method SW846 3545A													
91-20-3	Naphthalene	< 0.382		mg/kg dry	0.382	0.200	1	"	"	"	"	"	
91-57-6	2-Methylnaphthalene	< 0.382		mg/kg dry	0.382	0.200	1	"	"	"	"	"	
208-96-8	Acenaphthylene	< 0.382		mg/kg dry	0.382	0.224	1	"	"	"	"	"	
83-32-9	Acenaphthene	< 0.382		mg/kg dry	0.382	0.223	1	"	"	"	"	"	
86-73-7	Fluorene	< 0.382		mg/kg dry	0.382	0.226	1	"	"	"	"	"	
85-01-8	Phenanthrene	< 0.382		mg/kg dry	0.382	0.260	1	"	"	"	"	"	
120-12-7	Anthracene	< 0.382		mg/kg dry	0.382	0.283	1	"	"	"	"	"	
206-44-0	Fluoranthene	< 0.382		mg/kg dry	0.382	0.256	1	"	"	"	"	"	
129-00-0	Pyrene	< 0.382		mg/kg dry	0.382	0.276	1	"	"	"	"	"	
56-55-3	Benzo (a) anthracene	< 0.382		mg/kg dry	0.382	0.277	1	"	"	"	"	"	
218-01-9	Chrysene	< 0.382		mg/kg dry	0.382	0.297	1	"	"	"	"	"	
205-99-2	Benzo (b) fluoranthene	< 0.382		mg/kg dry	0.382	0.341	1	"	"	"	"	"	
207-08-9	Benzo (k) fluoranthene	< 0.382		mg/kg dry	0.382	0.319	1	"	"	"	"	"	
50-32-8	Benzo (a) pyrene	< 0.382		mg/kg dry	0.382	0.257	1	"	"	"	"	"	
193-39-5	Indeno (1,2,3-cd) pyrene	< 0.382		mg/kg dry	0.382	0.340	1	"	"	"	"	"	
53-70-3	Dibenzo (a,h) anthracene	< 0.382		mg/kg dry	0.382	0.277	1	"	"	"	"	"	
191-24-2	Benzo (g,h,i) perylene	< 0.382		mg/kg dry	0.382	0.286	1	"	"	"	"	"	
Surrogate recoveries:													
3386-33-2	*1-Chlorooctadecane*	*81*			*40-140 %*			"	"	"	"	"	
84-15-1	*Ortho-Terphenyl*	*42*			*40-140 %*			"	"	"	"	"	
321-60-8	*2-Fluorobiphenyl*	*47*			*40-140 %*			"	"	"	"	"	
General Chemistry Parameters													
	% Solids	**86.0**		%			1	SM2540 G Mod.	17-Jan-12	17-Jan-12	DT	1201291	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-8 4-6' SB42546-03	1753-03-01	Soil	11-Jan-12 11:45	16-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Extractable Petroleum Hydrocarbons													
EPH Aliphatic/Aromatic Ranges													
Prepared by method SW846 3545A													
	C9-C18 Aliphatic Hydrocarbons	< 11.9		mg/kg dry	11.9	1.75	1	MADEP EPH 5/2004 R	18-Jan-12	24-Jan-12	MP	1201380	
	C19-C36 Aliphatic Hydrocarbons	< 11.9		mg/kg dry	11.9	5.84	1	"	"	"	"	"	
	C11-C22 Aromatic Hydrocarbons	< 11.9		mg/kg dry	11.9	4.32	1	"	"	"	"	"	
	Unadjusted C11-C22 Aromatic Hydrocarbons	< 11.9		mg/kg dry	11.9	4.32	1	"	"	"	"	"	
	Total Petroleum Hydrocarbons	< 11.9		mg/kg dry	11.9	11.9	1	"	"	"	"	"	
	Unadjusted Total Petroleum Hydrocarbons	< 11.9		mg/kg dry	11.9	11.9	1	"	"	"	"	"	
EPH Target PAH Analytes													
Prepared by method SW846 3545A													
91-20-3	Naphthalene	< 0.397		mg/kg dry	0.397	0.208	1	"	"	"	"	"	
91-57-6	2-Methylnaphthalene	< 0.397		mg/kg dry	0.397	0.208	1	"	"	"	"	"	
208-96-8	Acenaphthylene	< 0.397		mg/kg dry	0.397	0.233	1	"	"	"	"	"	
83-32-9	Acenaphthene	< 0.397		mg/kg dry	0.397	0.232	1	"	"	"	"	"	
86-73-7	Fluorene	< 0.397		mg/kg dry	0.397	0.235	1	"	"	"	"	"	
85-01-8	Phenanthrene	< 0.397		mg/kg dry	0.397	0.271	1	"	"	"	"	"	
120-12-7	Anthracene	< 0.397		mg/kg dry	0.397	0.295	1	"	"	"	"	"	
206-44-0	Fluoranthene	< 0.397		mg/kg dry	0.397	0.266	1	"	"	"	"	"	
129-00-0	Pyrene	< 0.397		mg/kg dry	0.397	0.287	1	"	"	"	"	"	
56-55-3	Benzo (a) anthracene	< 0.397		mg/kg dry	0.397	0.288	1	"	"	"	"	"	
218-01-9	Chrysene	< 0.397		mg/kg dry	0.397	0.309	1	"	"	"	"	"	
205-99-2	Benzo (b) fluoranthene	< 0.397		mg/kg dry	0.397	0.354	1	"	"	"	"	"	
207-08-9	Benzo (k) fluoranthene	< 0.397		mg/kg dry	0.397	0.331	1	"	"	"	"	"	
50-32-8	Benzo (a) pyrene	< 0.397		mg/kg dry	0.397	0.267	1	"	"	"	"	"	
193-39-5	Indeno (1,2,3-cd) pyrene	< 0.397		mg/kg dry	0.397	0.353	1	"	"	"	"	"	
53-70-3	Dibenzo (a,h) anthracene	< 0.397		mg/kg dry	0.397	0.288	1	"	"	"	"	"	
191-24-2	Benzo (g,h,i) perylene	< 0.397		mg/kg dry	0.397	0.298	1	"	"	"	"	"	
Surrogate recoveries:													
3386-33-2	*1-Chlorooctadecane*	*49*			*40-140 %*			"	"	"	"	"	
84-15-1	*Ortho-Terphenyl*	*57*			*40-140 %*			"	"	"	"	"	
321-60-8	*2-Fluorobiphenyl*	*63*			*40-140 %*			"	"	"	"	"	
General Chemistry Parameters													
	% Solids	**82.7**		%			1	SM2540 G Mod.	17-Jan-12	17-Jan-12	DT	1201291	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-9 5-6' SB42546-04	1753-03-01	Soil	11-Jan-12 12:30	16-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
	VOC Extraction	**Field extracted**		N/A			1	VOC Soil Extraction			BD	1201301	
VPH Aliphatic/Aromatic Carbon Ranges			GS1, VC10										
Prepared by method VPH - EPA 5030B						Initial weight: 9.2 g							
	C5-C8 Aliphatic Hydrocarbons	**21.6**		mg/kg dry	7.22	0.678	200	MADEP VPH 5/2004 Rev. 1.1	24-Jan-12	25-Jan-12	mp	1201825	
	C9-C12 Aliphatic Hydrocarbons	**153**		mg/kg dry	2.41	0.351	200	"	"	"	"	"	
	C9-C10 Aromatic Hydrocarbons	**54.0**		mg/kg dry	2.41	0.0621	200	"	"	"	"	"	
	Unadjusted C5-C8 Aliphatic Hydrocarbons	**21.6**		mg/kg dry	7.22	0.554	200	"	"	"	"	"	
	Unadjusted C9-C12 Aliphatic Hydrocarbons	**207**		mg/kg dry	2.41	0.330	200	"	"	"	"	"	
VPH Target Analytes			GS1, VC10										
Prepared by method VPH - EPA 5030B						Initial weight: 9.2 g							
71-43-2	Benzene	< 0.5		mg/kg dry	0.5	0.1	200	"	"	"	"	"	
100-41-4	Ethylbenzene	< 0.5		mg/kg dry	0.5	0.1	200	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 0.5		mg/kg dry	0.5	0.08	200	"	"	"	"	"	
91-20-3	Naphthalene	< 0.5		mg/kg dry	0.5	0.09	200	"	"	"	"	"	
108-88-3	Toluene	< 0.5		mg/kg dry	0.5	0.1	200	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 1.0		mg/kg dry	1.0	0.3	200	"	"	"	"	"	
95-47-6	o-Xylene	< 0.5		mg/kg dry	0.5	0.1	200	"	"	"	"	"	
Surrogate recoveries:													
615-59-8	*2,5-Dibromotoluene (FID)*	*99*			*70-130 %*			"	"	"	"	"	
615-59-8	*2,5-Dibromotoluene (PID)*	*88*			*70-130 %*			"	"	"	"	"	
Extractable Petroleum Hydrocarbons													
EPH Aliphatic/Aromatic Ranges													
Prepared by method SW846 3545A													
	C9-C18 Aliphatic Hydrocarbons	**981**		mg/kg dry	12.6	1.85	1	MADEP EPH 5/2004 R	18-Jan-12	24-Jan-12	MP	1201380	
	C19-C36 Aliphatic Hydrocarbons	< 12.6		mg/kg dry	12.6	6.16	1	"	"	"	"	"	
	C11-C22 Aromatic Hydrocarbons	**104**		mg/kg dry	12.6	4.56	1	"	"	"	"	"	
	Unadjusted C11-C22 Aromatic Hydrocarbons	**104**		mg/kg dry	12.6	4.56	1	"	"	"	"	"	
	Total Petroleum Hydrocarbons	**1,090**		mg/kg dry	12.6	12.6	1	"	"	"	"	"	
	Unadjusted Total Petroleum Hydrocarbons	**1,090**		mg/kg dry	12.6	12.6	1	"	"	"	"	"	
EPH Target PAH Analytes													
Prepared by method SW846 3545A													
91-20-3	Naphthalene	< 0.419		mg/kg dry	0.419	0.219	1	"	"	"	"	"	
91-57-6	2-Methylnaphthalene	< 0.419		mg/kg dry	0.419	0.219	1	"	"	"	"	"	
208-96-8	Acenaphthylene	< 0.419		mg/kg dry	0.419	0.245	1	"	"	"	"	"	
83-32-9	Acenaphthene	< 0.419		mg/kg dry	0.419	0.245	1	"	"	"	"	"	
86-73-7	Fluorene	< 0.419		mg/kg dry	0.419	0.248	1	"	"	"	"	"	
85-01-8	Phenanthrene	< 0.419		mg/kg dry	0.419	0.285	1	"	"	"	"	"	
120-12-7	Anthracene	< 0.419		mg/kg dry	0.419	0.311	1	"	"	"	"	"	
206-44-0	Fluoranthene	< 0.419		mg/kg dry	0.419	0.281	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-9 5-6' SB42546-04	1753-03-01	Soil	11-Jan-12 12:30	16-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Extractable Petroleum Hydrocarbons													
EPH Target PAH Analytes													
Prepared by method SW846 3545A													
129-00-0	Pyrene	< 0.419		mg/kg dry	0.419	0.302	1	MADEP EPH 5/2004 R	18-Jan-12	24-Jan-12	MP	1201380	
56-55-3	Benzo (a) anthracene	< 0.419		mg/kg dry	0.419	0.304	1	"	"	"	"	"	
218-01-9	Chrysene	< 0.419		mg/kg dry	0.419	0.326	1	"	"	"	"	"	
205-99-2	Benzo (b) fluoranthene	< 0.419		mg/kg dry	0.419	0.374	1	"	"	"	"	"	
207-08-9	Benzo (k) fluoranthene	< 0.419		mg/kg dry	0.419	0.349	1	"	"	"	"	"	
50-32-8	Benzo (a) pyrene	< 0.419		mg/kg dry	0.419	0.282	1	"	"	"	"	"	
193-39-5	Indeno (1,2,3-cd) pyrene	< 0.419		mg/kg dry	0.419	0.373	1	"	"	"	"	"	
53-70-3	Dibenzo (a,h) anthracene	< 0.419		mg/kg dry	0.419	0.304	1	"	"	"	"	"	
191-24-2	Benzo (g,h,i) perylene	< 0.419		mg/kg dry	0.419	0.314	1	"	"	"	"	"	
Surrogate recoveries:													
3386-33-2	*1-Chlorooctadecane*	*54*			*40-140 %*			"	"	"	"	"	
84-15-1	*Ortho-Terphenyl*	*53*			*40-140 %*			"	"	"	"	"	
321-60-8	*2-Fluorobiphenyl*	*61*			*40-140 %*			"	"	"	"	"	
General Chemistry Parameters													
	% Solids	**77.2**		%			1	SM2540 G Mod.	17-Jan-12	17-Jan-12	DT	1201291	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-11 4-6' SB42546-05	1753-03-01	Soil	11-Jan-12 12:55	16-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Extractable Petroleum Hydrocarbons													
EPH Aliphatic/Aromatic Ranges													
Prepared by method SW846 3545A													
	C9-C18 Aliphatic Hydrocarbons	< 11.8		mg/kg dry	11.8	1.74	1	MADEP EPH 5/2004 R	18-Jan-12	24-Jan-12	MP	1201380	
	C19-C36 Aliphatic Hydrocarbons	< 11.8		mg/kg dry	11.8	5.79	1	"	"	"	"	"	
	C11-C22 Aromatic Hydrocarbons	< 11.8		mg/kg dry	11.8	4.28	1	"	"	"	"	"	
	Unadjusted C11-C22 Aromatic Hydrocarbons	< 11.8		mg/kg dry	11.8	4.28	1	"	"	"	"	"	
	Total Petroleum Hydrocarbons	< 11.8		mg/kg dry	11.8	11.8	1	"	"	"	"	"	
	Unadjusted Total Petroleum Hydrocarbons	< 11.8		mg/kg dry	11.8	11.8	1	"	"	"	"	"	
EPH Target PAH Analytes													
Prepared by method SW846 3545A													
91-20-3	Naphthalene	< 0.394		mg/kg dry	0.394	0.206	1	"	"	"	"	"	
91-57-6	2-Methylnaphthalene	< 0.394		mg/kg dry	0.394	0.206	1	"	"	"	"	"	
208-96-8	Acenaphthylene	< 0.394		mg/kg dry	0.394	0.231	1	"	"	"	"	"	
83-32-9	Acenaphthene	< 0.394		mg/kg dry	0.394	0.230	1	"	"	"	"	"	
86-73-7	Fluorene	< 0.394		mg/kg dry	0.394	0.233	1	"	"	"	"	"	
85-01-8	Phenanthrene	< 0.394		mg/kg dry	0.394	0.268	1	"	"	"	"	"	
120-12-7	Anthracene	< 0.394		mg/kg dry	0.394	0.292	1	"	"	"	"	"	
206-44-0	Fluoranthene	< 0.394		mg/kg dry	0.394	0.264	1	"	"	"	"	"	
129-00-0	Pyrene	< 0.394		mg/kg dry	0.394	0.284	1	"	"	"	"	"	
56-55-3	Benzo (a) anthracene	< 0.394		mg/kg dry	0.394	0.285	1	"	"	"	"	"	
218-01-9	Chrysene	< 0.394		mg/kg dry	0.394	0.306	1	"	"	"	"	"	
205-99-2	Benzo (b) fluoranthene	< 0.394		mg/kg dry	0.394	0.351	1	"	"	"	"	"	
207-08-9	Benzo (k) fluoranthene	< 0.394		mg/kg dry	0.394	0.328	1	"	"	"	"	"	
50-32-8	Benzo (a) pyrene	< 0.394		mg/kg dry	0.394	0.265	1	"	"	"	"	"	
193-39-5	Indeno (1,2,3-cd) pyrene	< 0.394		mg/kg dry	0.394	0.350	1	"	"	"	"	"	
53-70-3	Dibenzo (a,h) anthracene	< 0.394		mg/kg dry	0.394	0.286	1	"	"	"	"	"	
191-24-2	Benzo (g,h,i) perylene	< 0.394		mg/kg dry	0.394	0.295	1	"	"	"	"	"	
Surrogate recoveries:													
3386-33-2	*1-Chlorooctadecane*	*68*			*40-140 %*			"	"	"	"	"	
84-15-1	*Ortho-Terphenyl*	*56*			*40-140 %*			"	"	"	"	"	
321-60-8	*2-Fluorobiphenyl*	*68*			*40-140 %*			"	"	"	"	"	
General Chemistry Parameters													
	% Solids	**82.1**		%			1	SM2540 G Mod.	17-Jan-12	17-Jan-12	DT	1201291	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-14 0-2' SB42546-06	1753-03-01	Soil	11-Jan-12 14:15	16-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Semivolatile Organic Compounds by GC													
Polychlorinated Biphenyls													
Prepared by method SW846 3545A													
12674-11-2	Aroclor-1016	< 22.1		µg/kg dry	22.1	11.0	1	SW846 8082A	20-Jan-12	20-Jan-12	IMR	1201586	
11104-28-2	Aroclor-1221	< 22.1		µg/kg dry	22.1	19.9	1	"	"	"	"	"	
11141-16-5	Aroclor-1232	< 22.1		µg/kg dry	22.1	14.2	1	"	"	"	"	"	
53469-21-9	Aroclor-1242	< 22.1		µg/kg dry	22.1	13.0	1	"	"	"	"	"	
12672-29-6	Aroclor-1248	< 22.1		µg/kg dry	22.1	10.8	1	"	"	"	"	"	
11097-69-1	Aroclor-1254	< 22.1		µg/kg dry	22.1	16.2	1	"	"	"	"	"	
11096-82-5	Aroclor-1260	< 22.1		µg/kg dry	22.1	8.46	1	"	"	"	"	"	
37324-23-5	Aroclor-1262	< 22.1		µg/kg dry	22.1	20.6	1	"	"	"	"	"	
11100-14-4	Aroclor-1268	< 22.1		µg/kg dry	22.1	6.93	1	"	"	"	"	"	
Surrogate recoveries:													
10386-84-2	*4,4-DB-Octafluorobiphenyl (Sr)*	*60*			*30-150 %*			"	"	"	"	"	
10386-84-2	*4,4-DB-Octafluorobiphenyl (Sr) [2C]*	*70*			*30-150 %*			"	"	"	"	"	
2051-24-3	*Decachlorobiphenyl (Sr)*	*110*			*30-150 %*			"	"	"	"	"	
2051-24-3	*Decachlorobiphenyl (Sr) [2C]*	*95*			*30-150 %*			"	"	"	"	"	
Total Metals by EPA 6000/7000 Series Methods													
7440-22-4	Silver	**36.1**		mg/kg dry	1.46	0.225	1	SW846 6010C	19-Jan-12	20-Jan-12	EDT	1201419	
7429-90-5	Aluminum	**8,220**		mg/kg dry	4.86	0.681	1	"	"	"	"	"	
7440-38-2	Arsenic	**3.16**		mg/kg dry	1.46	0.234	1	"	"	"	"	"	
7440-39-3	Barium	**18.2**		mg/kg dry	0.973	0.235	1	"	"	22-Jan-12	"	"	
7440-41-7	Beryllium	< 0.486		mg/kg dry	0.486	0.156	1	"	"	"	"	"	
7440-70-2	Calcium	**323**		mg/kg dry	24.3	6.09	1	"	"	20-Jan-12	"	"	
7440-43-9	Cadmium	**1.26**		mg/kg dry	0.486	0.0537	1	"	"	"	"	"	
7440-48-4	Cobalt	**3.97**		mg/kg dry	0.973	0.108	1	"	"	"	"	"	
7440-47-3	Chromium	**13.0**		mg/kg dry	0.973	0.355	1	"	"	"	"	"	
7440-50-8	Copper	**85.1**		mg/kg dry	0.973	0.109	1	"	"	"	"	"	
7439-89-6	Iron	**14,400**		mg/kg dry	3.89	0.717	1	"	"	22-Jan-12	"	"	
7439-97-6	Mercury	**0.184**		mg/kg dry	0.0292	0.0060	1	SW846 7471B	24-Jan-12	24-Jan-12	AMT	1201420	
7440-09-7	Potassium	**422**		mg/kg dry	48.6	12.2	1	SW846 6010C	19-Jan-12	20-Jan-12	EDT	1201419	
7439-95-4	Magnesium	**1,960**		mg/kg dry	4.86	0.139	1	"	"	"	"	"	
7439-96-5	Manganese	**126**		mg/kg dry	0.973	0.0526	1	"	"	"	"	"	
7440-23-5	Sodium	**24.9**		mg/kg dry	24.3	3.08	1	"	"	"	"	"	
7440-02-0	Nickel	**77.8**		mg/kg dry	0.973	0.0670	1	"	"	"	"	"	
7439-92-1	Lead	**25.8**		mg/kg dry	1.46	0.173	1	"	"	"	"	"	
7440-36-0	Antimony	< 4.86		mg/kg dry	4.86	0.214	1	"	"	"	"	"	
7782-49-2	Selenium	< 1.46		mg/kg dry	1.46	0.216	1	"	"	"	"	"	
7440-28-0	Thallium	< 2.92		mg/kg dry	2.92	0.240	1	"	"	"	"	"	
7440-62-2	Vanadium	**17.7**		mg/kg dry	1.46	0.255	1	"	"	"	"	"	
7440-66-6	Zinc	**46.5**		mg/kg dry	0.973	0.211	1	"	"	"	"	"	
General Chemistry Parameters													
	% Solids	**90.4**		%			1	SM2540 G Mod.	17-Jan-12	17-Jan-12	DT	1201291	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-14 6-8' SB42546-07	1753-03-01	Soil	11-Jan-12 14:30	16-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
	VOC Extraction	**Field extracted**		N/A			1	VOC Soil Extraction			BD	1201301	
Volatile Organic Compounds													
Prepared by method SW846 5035A Soil (low level)							Initial weight: 5.2 g						
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 6.9		µg/kg dry	6.9	4.6	1	SW846 8260C	18-Jan-12	18-Jan-12	JRO	1201366	
67-64-1	Acetone	< 69.4		µg/kg dry	69.4	52.2	1	"	"	"	"	"	
107-13-1	Acrylonitrile	< 6.9		µg/kg dry	6.9	6.2	1	"	"	"	"	"	
71-43-2	Benzene	< 6.9		µg/kg dry	6.9	3.6	1	"	"	"	"	"	
108-86-1	Bromobenzene	< 6.9		µg/kg dry	6.9	4.4	1	"	"	"	"	"	
74-97-5	Bromochloromethane	< 6.9		µg/kg dry	6.9	2.3	1	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 6.9		µg/kg dry	6.9	2.6	1	"	"	"	"	"	
75-25-2	Bromoform	< 6.9		µg/kg dry	6.9	4.8	1	"	"	"	"	"	
74-83-9	Bromomethane	< 13.9		µg/kg dry	13.9	12.5	1	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	< 69.4		µg/kg dry	69.4	59.5	1	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 6.9		µg/kg dry	6.9	3.5	1	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 6.9		µg/kg dry	6.9	6.7	1	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 6.9		µg/kg dry	6.9	5.0	1	"	"	"	"	"	
75-15-0	Carbon disulfide	< 13.9		µg/kg dry	13.9	9.9	1	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 6.9		µg/kg dry	6.9	6.9	1	"	"	"	"	"	
108-90-7	Chlorobenzene	< 6.9		µg/kg dry	6.9	3.9	1	"	"	"	"	"	
75-00-3	Chloroethane	< 13.9		µg/kg dry	13.9	9.8	1	"	"	"	"	"	
67-66-3	Chloroform	< 6.9		µg/kg dry	6.9	3.4	1	"	"	"	"	"	
74-87-3	Chloromethane	< 13.9		µg/kg dry	13.9	3.5	1	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 6.9		µg/kg dry	6.9	4.2	1	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 6.9		µg/kg dry	6.9	6.2	1	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	< 13.9		µg/kg dry	13.9	13.1	1	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 6.9		µg/kg dry	6.9	3.3	1	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 6.9		µg/kg dry	6.9	4.3	1	"	"	"	"	"	
74-95-3	Dibromomethane	< 6.9		µg/kg dry	6.9	6.9	1	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 6.9		µg/kg dry	6.9	5.6	1	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 6.9		µg/kg dry	6.9	6.9	1	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 6.9		µg/kg dry	6.9	4.7	1	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 13.9		µg/kg dry	13.9	11.7	1	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 6.9		µg/kg dry	6.9	6.3	1	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 6.9		µg/kg dry	6.9	3.9	1	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 6.9		µg/kg dry	6.9	3.4	1	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	< 6.9		µg/kg dry	6.9	2.9	1	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 6.9		µg/kg dry	6.9	5.8	1	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 6.9		µg/kg dry	6.9	3.5	1	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 6.9		µg/kg dry	6.9	3.5	1	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 6.9		µg/kg dry	6.9	2.8	1	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 6.9		µg/kg dry	6.9	4.3	1	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 6.9		µg/kg dry	6.9	3.8	1	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 6.9		µg/kg dry	6.9	2.0	1	"	"	"	"	"	
100-41-4	Ethylbenzene	< 6.9		µg/kg dry	6.9	4.2	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-14 6-8' SB42546-07	1753-03-01	Soil	11-Jan-12 14:30	16-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds													
Prepared by method SW846 5035A Soil (low level)							Initial weight: 5.2 g						
87-68-3	Hexachlorobutadiene	< 6.9		µg/kg dry	6.9	6.0	1	SW846 8260C	18-Jan-12	18-Jan-12	JRO	1201366	
591-78-6	2-Hexanone (MBK)	< 69.4		µg/kg dry	69.4	17.7	1	"	"	"	"	"	
98-82-8	Isopropylbenzene	< 6.9		µg/kg dry	6.9	3.5	1	"	"	"	"	"	
99-87-6	4-Isopropyltoluene	< 6.9		µg/kg dry	6.9	2.9	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 6.9		µg/kg dry	6.9	5.0	1	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 69.4		µg/kg dry	69.4	22.6	1	"	"	"	"	"	
75-09-2	Methylene chloride	< 13.9		µg/kg dry	13.9	3.5	1	"	"	"	"	"	
91-20-3	Naphthalene	< 6.9		µg/kg dry	6.9	4.3	1	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 6.9		µg/kg dry	6.9	4.2	1	"	"	"	"	"	
100-42-5	Styrene	< 6.9		µg/kg dry	6.9	5.1	1	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 6.9		µg/kg dry	6.9	6.7	1	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 6.9		µg/kg dry	6.9	5.3	1	"	"	"	"	"	
127-18-4	Tetrachloroethene	**38.4**		µg/kg dry	6.9	4.0	1	"	"	"	"	"	
108-88-3	Toluene	< 6.9		µg/kg dry	6.9	6.2	1	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 6.9		µg/kg dry	6.9	6.0	1	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 6.9		µg/kg dry	6.9	5.2	1	"	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 6.9		µg/kg dry	6.9	4.9	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 6.9		µg/kg dry	6.9	5.6	1	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 6.9		µg/kg dry	6.9	6.0	1	"	"	"	"	"	
79-01-6	Trichloroethene	**331**	E	µg/kg dry	6.9	5.3	1	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 6.9		µg/kg dry	6.9	2.8	1	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 6.9		µg/kg dry	6.9	3.1	1	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 6.9		µg/kg dry	6.9	2.3	1	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 6.9		µg/kg dry	6.9	6.9	1	"	"	"	"	"	
75-01-4	Vinyl chloride	< 6.9		µg/kg dry	6.9	6.5	1	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 13.9		µg/kg dry	13.9	13.5	1	"	"	"	"	"	
95-47-6	o-Xylene	< 6.9		µg/kg dry	6.9	4.7	1	"	"	"	"	"	
109-99-9	Tetrahydrofuran	< 13.9		µg/kg dry	13.9	12.8	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 6.9		µg/kg dry	6.9	6.5	1	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	< 6.9		µg/kg dry	6.9	5.5	1	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 6.9		µg/kg dry	6.9	2.4	1	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 6.9		µg/kg dry	6.9	2.2	1	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 69.4		µg/kg dry	69.4	39.3	1	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 139		µg/kg dry	139	114	1	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-buten e	< 34.7		µg/kg dry	34.7	17.8	1	"	"	"	"	"	
64-17-5	Ethanol	< 2780		µg/kg dry	2780	581	1	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*102*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*100*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*121*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*102*			*70-130 %*			"	"	"	"	"	
Re-analysis of Volatile Organic Compounds			GS1										

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Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-14 6-8' SB42546-07	1753-03-01	Soil	11-Jan-12 14:30	16-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Re-analysis of Volatile Organic Compounds			GS1										
Prepared by method SW846 5030 Soil (high level)							Initial weight: 10 g						
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 102		µg/kg dry	102	68.2	50	SW846 8260C	20-Jan-12	20-Jan-12	naa	1201627	
67-64-1	Acetone	< 1020		µg/kg dry	1020	768	50	"	"	"	"	"	
107-13-1	Acrylonitrile	< 102		µg/kg dry	102	91.5	50	"	"	"	"	"	
71-43-2	Benzene	< 102		µg/kg dry	102	53.6	50	"	"	"	"	"	
108-86-1	Bromobenzene	< 102		µg/kg dry	102	65.2	50	"	"	"	"	"	
74-97-5	Bromochloromethane	< 102		µg/kg dry	102	33.5	50	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 102		µg/kg dry	102	38.6	50	"	"	"	"	"	
75-25-2	Bromoform	< 102		µg/kg dry	102	70.6	50	"	"	"	"	"	
74-83-9	Bromomethane	< 204		µg/kg dry	204	184	50	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	< 1020		µg/kg dry	1020	876	50	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 102		µg/kg dry	102	51.0	50	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 102		µg/kg dry	102	99.1	50	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 102		µg/kg dry	102	73.9	50	"	"	"	"	"	
75-15-0	Carbon disulfide	< 204		µg/kg dry	204	146	50	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 102		µg/kg dry	102	102	50	"	"	"	"	"	
108-90-7	Chlorobenzene	< 102		µg/kg dry	102	57.1	50	"	"	"	"	"	
75-00-3	Chloroethane	< 204		µg/kg dry	204	145	50	"	"	"	"	"	
67-66-3	Chloroform	< 102		µg/kg dry	102	50.0	50	"	"	"	"	"	
74-87-3	Chloromethane	< 204		µg/kg dry	204	51.4	50	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 102		µg/kg dry	102	62.2	50	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 102		µg/kg dry	102	91.5	50	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	< 204		µg/kg dry	204	193	50	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 102		µg/kg dry	102	49.0	50	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 102		µg/kg dry	102	63.4	50	"	"	"	"	"	
74-95-3	Dibromomethane	< 102		µg/kg dry	102	102	50	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 102		µg/kg dry	102	82.3	50	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 102		µg/kg dry	102	102	50	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 102		µg/kg dry	102	69.0	50	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 204		µg/kg dry	204	172	50	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 102		µg/kg dry	102	93.3	50	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 102		µg/kg dry	102	57.1	50	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 102		µg/kg dry	102	50.7	50	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	< 102		µg/kg dry	102	42.9	50	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 102		µg/kg dry	102	84.8	50	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 102		µg/kg dry	102	52.0	50	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 102		µg/kg dry	102	51.4	50	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 102		µg/kg dry	102	41.2	50	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 102		µg/kg dry	102	63.0	50	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 102		µg/kg dry	102	55.7	50	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 102		µg/kg dry	102	28.8	50	"	"	"	"	"	
100-41-4	Ethylbenzene	< 102		µg/kg dry	102	62.2	50	"	"	"	"	"	
87-68-3	Hexachlorobutadiene	< 102		µg/kg dry	102	88.1	50	"	"	"	"	"	
591-78-6	2-Hexanone (MBK)	< 1020		µg/kg dry	1020	261	50	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-14 6-8' SB42546-07	1753-03-01	Soil	11-Jan-12 14:30	16-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Re-analysis of Volatile Organic Compounds			GS1										
Prepared by method SW846 5030 Soil (high level)							Initial weight: 10 g						
98-82-8	Isopropylbenzene	< 102		µg/kg dry	102	51.3	50	SW846 8260C	20-Jan-12	20-Jan-12	naa	1201627	
99-87-6	4-Isopropyltoluene	< 102		µg/kg dry	102	42.3	50	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 102		µg/kg dry	102	74.3	50	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 1020		µg/kg dry	1020	332	50	"	"	"	"	"	
75-09-2	Methylene chloride	< 204		µg/kg dry	204	51.9	50	"	"	"	"	"	
91-20-3	Naphthalene	< 102		µg/kg dry	102	63.5	50	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 102		µg/kg dry	102	61.3	50	"	"	"	"	"	
100-42-5	Styrene	< 102		µg/kg dry	102	75.6	50	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 102		µg/kg dry	102	98.1	50	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 102		µg/kg dry	102	77.7	50	"	"	"	"	"	
127-18-4	Tetrachloroethene	**278**		µg/kg dry	102	58.4	50	"	"	"	"	"	
108-88-3	Toluene	< 102		µg/kg dry	102	91.6	50	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 102		µg/kg dry	102	88.5	50	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 102		µg/kg dry	102	76.8	50	"	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 102		µg/kg dry	102	72.3	50	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 102		µg/kg dry	102	81.8	50	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 102		µg/kg dry	102	87.9	50	"	"	"	"	"	
79-01-6	Trichloroethene	**2,180**		µg/kg dry	102	78.3	50	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 102		µg/kg dry	102	41.3	50	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 102		µg/kg dry	102	46.2	50	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 102		µg/kg dry	102	33.4	50	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 102		µg/kg dry	102	101	50	"	"	"	"	"	
75-01-4	Vinyl chloride	< 102		µg/kg dry	102	95.8	50	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 204		µg/kg dry	204	198	50	"	"	"	"	"	
95-47-6	o-Xylene	< 102		µg/kg dry	102	69.8	50	"	"	"	"	"	
109-99-9	Tetrahydrofuran	< 204		µg/kg dry	204	189	50	"	"	"	"	"	
60-29-7	Ethyl ether	< 102		µg/kg dry	102	95.3	50	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	< 102		µg/kg dry	102	80.6	50	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 102		µg/kg dry	102	35.7	50	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 102		µg/kg dry	102	32.9	50	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 1020		µg/kg dry	1020	578	50	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 2040		µg/kg dry	2040	1670	50	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-buten e	< 511		µg/kg dry	511	262	50	"	"	"	"	"	
64-17-5	Ethanol	< 40900		µg/kg dry	40900	8550	50	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*96*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*99*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*96*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*85*			*70-130 %*			"	"	"	"	"	
VPH Aliphatic/Aromatic Carbon Ranges			VC10										
Prepared by method VPH - EPA 5030B							Initial weight: 10 g						

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-14 6-8' SB42546-07	1753-03-01	Soil	11-Jan-12 14:30	16-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
VPH Aliphatic/Aromatic Carbon Ranges			VC10										
Prepared by method VPH - EPA 5030B							Initial weight: 10 g						
	C5-C8 Aliphatic Hydrocarbons	< 1.53		mg/kg dry	1.53	0.144	50	MADEP VPH 5/2004 Rev. 1.1	24-Jan-12	25-Jan-12	mp	1201825	
	C9-C12 Aliphatic Hydrocarbons	< 0.511		mg/kg dry	0.511	0.0745	50	"	"	"	"	"	
	C9-C10 Aromatic Hydrocarbons	< 0.511		mg/kg dry	0.511	0.0132	50	"	"	"	"	"	
	Unadjusted C5-C8 Aliphatic Hydrocarbons	< 1.53		mg/kg dry	1.53	0.118	50	"	"	"	"	"	
	Unadjusted C9-C12 Aliphatic Hydrocarbons	< 0.511		mg/kg dry	0.511	0.0700	50	"	"	"	"	"	
VPH Target Analytes			VC10										
Prepared by method VPH - EPA 5030B							Initial weight: 10 g						
71-43-2	Benzene	< 0.1		mg/kg dry	0.1	0.02	50	"	"	"	"	"	
100-41-4	Ethylbenzene	< 0.1		mg/kg dry	0.1	0.02	50	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 0.1		mg/kg dry	0.1	0.02	50	"	"	"	"	"	
91-20-3	Naphthalene	< 0.1		mg/kg dry	0.1	0.02	50	"	"	"	"	"	
108-88-3	Toluene	< 0.1		mg/kg dry	0.1	0.02	50	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 0.2		mg/kg dry	0.2	0.06	50	"	"	"	"	"	
95-47-6	o-Xylene	< 0.1		mg/kg dry	0.1	0.03	50	"	"	"	"	"	
Surrogate recoveries:													
615-59-8	*2,5-Dibromotoluene (FID)*	*96*			*70-130 %*			"	"	"	"	"	
615-59-8	*2,5-Dibromotoluene (PID)*	*85*			*70-130 %*			"	"	"	"	"	
Extractable Petroleum Hydrocarbons													
EPH Aliphatic/Aromatic Ranges													
Prepared by method SW846 3545A													
	C9-C18 Aliphatic Hydrocarbons	< 12.0		mg/kg dry	12.0	1.77	1	MADEP EPH 5/2004 R	18-Jan-12	24-Jan-12	MP	1201380	
	C19-C36 Aliphatic Hydrocarbons	< 12.0		mg/kg dry	12.0	5.88	1	"	"	"	"	"	
	C11-C22 Aromatic Hydrocarbons	< 12.0		mg/kg dry	12.0	4.35	1	"	"	"	"	"	
	Unadjusted C11-C22 Aromatic Hydrocarbons	< 12.0		mg/kg dry	12.0	4.35	1	"	"	"	"	"	
	Total Petroleum Hydrocarbons	< 12.0		mg/kg dry	12.0	12.0	1	"	"	"	"	"	
	Unadjusted Total Petroleum Hydrocarbons	< 12.0		mg/kg dry	12.0	12.0	1	"	"	"	"	"	
EPH Target PAH Analytes													
Prepared by method SW846 3545A													
91-20-3	Naphthalene	< 0.400		mg/kg dry	0.400	0.209	1	"	"	"	"	"	
91-57-6	2-Methylnaphthalene	< 0.400		mg/kg dry	0.400	0.209	1	"	"	"	"	"	
208-96-8	Acenaphthylene	< 0.400		mg/kg dry	0.400	0.234	1	"	"	"	"	"	
83-32-9	Acenaphthene	< 0.400		mg/kg dry	0.400	0.234	1	"	"	"	"	"	
86-73-7	Fluorene	< 0.400		mg/kg dry	0.400	0.237	1	"	"	"	"	"	
85-01-8	Phenanthrene	< 0.400		mg/kg dry	0.400	0.273	1	"	"	"	"	"	
120-12-7	Anthracene	< 0.400		mg/kg dry	0.400	0.297	1	"	"	"	"	"	
206-44-0	Fluoranthene	< 0.400		mg/kg dry	0.400	0.268	1	"	"	"	"	"	
129-00-0	Pyrene	< 0.400		mg/kg dry	0.400	0.289	1	"	"	"	"	"	
56-55-3	Benzo (a) anthracene	< 0.400		mg/kg dry	0.400	0.290	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-14 6-8' SB42546-07	1753-03-01	Soil	11-Jan-12 14:30	16-Jan-12

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Extractable Petroleum Hydrocarbons													
EPH Target PAH Analytes													
Prepared by method SW846 3545A													
218-01-9	Chrysene	< 0.400		mg/kg dry	0.400	0.311	1	MADEP EPH 5/2004 R	18-Jan-12	24-Jan-12	MP	1201380	
205-99-2	Benzo (b) fluoranthene	< 0.400		mg/kg dry	0.400	0.357	1	"	"	"	"	"	
207-08-9	Benzo (k) fluoranthene	< 0.400		mg/kg dry	0.400	0.334	1	"	"	"	"	"	
50-32-8	Benzo (a) pyrene	< 0.400		mg/kg dry	0.400	0.269	1	"	"	"	"	"	
193-39-5	Indeno (1,2,3-cd) pyrene	< 0.400		mg/kg dry	0.400	0.356	1	"	"	"	"	"	
53-70-3	Dibenzo (a,h) anthracene	< 0.400		mg/kg dry	0.400	0.290	1	"	"	"	"	"	
191-24-2	Benzo (g,h,i) perylene	< 0.400		mg/kg dry	0.400	0.300	1	"	"	"	"	"	
Surrogate recoveries:													
3386-33-2	*1-Chlorooctadecane*	*72*			*40-140 %*			"	"	"	"	"	
84-15-1	*Ortho-Terphenyl*	*59*			*40-140 %*			"	"	"	"	"	
321-60-8	*2-Fluorobiphenyl*	*73*			*40-140 %*			"	"	"	"	"	
General Chemistry Parameters													
	% Solids	**82.1**		%			1	SM2540 G Mod.	17-Jan-12	17-Jan-12	DT	1201291	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-15 0-2' SB42546-08	1753-03-01	Soil	11-Jan-12 14:45	16-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Semivolatile Organic Compounds by GC													
Polychlorinated Biphenyls													
Prepared by method SW846 3545A													
12674-11-2	Aroclor-1016	< 22.9		µg/kg dry	22.9	11.4	1	SW846 8082A	20-Jan-12	20-Jan-12	IMR	1201586	
11104-28-2	Aroclor-1221	< 22.9		µg/kg dry	22.9	20.6	1	"	"	"	"	"	
11141-16-5	Aroclor-1232	< 22.9		µg/kg dry	22.9	14.7	1	"	"	"	"	"	
53469-21-9	Aroclor-1242	< 22.9		µg/kg dry	22.9	13.5	1	"	"	"	"	"	
12672-29-6	Aroclor-1248	< 22.9		µg/kg dry	22.9	11.2	1	"	"	"	"	"	
11097-69-1	Aroclor-1254	< 22.9		µg/kg dry	22.9	16.8	1	"	"	"	"	"	
11096-82-5	Aroclor-1260	< 22.9		µg/kg dry	22.9	8.77	1	"	"	"	"	"	
37324-23-5	Aroclor-1262	< 22.9		µg/kg dry	22.9	21.3	1	"	"	"	"	"	
11100-14-4	Aroclor-1268	< 22.9		µg/kg dry	22.9	7.18	1	"	"	"	"	"	
Surrogate recoveries:													
10386-84-2	*4,4-DB-Octafluorobiphenyl (Sr)*	*35*			*30-150 %*			"	"	"	"	"	
10386-84-2	*4,4-DB-Octafluorobiphenyl (Sr) [2C]*	*45*			*30-150 %*			"	"	"	"	"	
2051-24-3	*Decachlorobiphenyl (Sr)*	*75*			*30-150 %*			"	"	"	"	"	
2051-24-3	*Decachlorobiphenyl (Sr) [2C]*	*60*			*30-150 %*			"	"	"	"	"	
Total Metals by EPA 6000/7000 Series Methods													
7440-22-4	Silver	**101**		mg/kg dry	1.64	0.252	1	SW846 6010C	19-Jan-12	20-Jan-12	EDT	1201419	
7429-90-5	Aluminum	**9,410**		mg/kg dry	5.46	0.764	1	"	"	"	"	"	
7440-38-2	Arsenic	**6.02**		mg/kg dry	1.64	0.263	1	"	"	"	"	"	
7440-39-3	Barium	**34.8**		mg/kg dry	1.09	0.264	1	"	"	22-Jan-12	"	"	
7440-41-7	Beryllium	< 0.546		mg/kg dry	0.546	0.175	1	"	"	"	"	"	
7440-70-2	Calcium	**931**		mg/kg dry	27.3	6.83	1	"	"	20-Jan-12	"	"	
7440-43-9	Cadmium	**6.96**		mg/kg dry	0.546	0.0602	1	"	"	"	"	"	
7440-48-4	Cobalt	**4.63**		mg/kg dry	1.09	0.121	1	"	"	"	"	"	
7440-47-3	Chromium	**15.9**		mg/kg dry	1.09	0.398	1	"	"	"	"	"	
7440-50-8	Copper	**97.7**		mg/kg dry	1.09	0.123	1	"	"	"	"	"	
7439-89-6	Iron	**16,400**		mg/kg dry	4.37	0.804	1	"	"	22-Jan-12	"	"	
7439-97-6	Mercury	**0.217**		mg/kg dry	0.0342	0.0070	1	SW846 7471B	24-Jan-12	24-Jan-12	AMT	1201420	
7440-09-7	Potassium	**424**		mg/kg dry	54.6	13.7	1	SW846 6010C	19-Jan-12	20-Jan-12	EDT	1201419	
7439-95-4	Magnesium	**2,330**		mg/kg dry	5.46	0.156	1	"	"	"	"	"	
7439-96-5	Manganese	**191**		mg/kg dry	1.09	0.0590	1	"	"	"	"	"	
7440-23-5	Sodium	**28.5**		mg/kg dry	27.3	3.46	1	"	"	"	"	"	
7440-02-0	Nickel	**53.2**		mg/kg dry	1.09	0.0752	1	"	"	"	"	"	
7439-92-1	Lead	**50.7**		mg/kg dry	1.64	0.194	1	"	"	"	"	"	
7440-36-0	Antimony	< 5.46		mg/kg dry	5.46	0.240	1	"	"	"	"	"	
7782-49-2	Selenium	< 1.64		mg/kg dry	1.64	0.242	1	"	"	"	"	"	
7440-28-0	Thallium	< 3.27		mg/kg dry	3.27	0.269	1	"	"	"	"	"	
7440-62-2	Vanadium	**35.7**		mg/kg dry	1.64	0.286	1	"	"	"	"	"	
7440-66-6	Zinc	**83.1**		mg/kg dry	1.09	0.237	1	"	"	"	"	"	
General Chemistry Parameters													
	% Solids	**84.7**		%			1	SM2540 G Mod.	17-Jan-12	17-Jan-12	DT	1201291	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-15 4-6' SB42546-09	1753-03-01	Soil	11-Jan-12 14:55	16-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Extractable Petroleum Hydrocarbons													
EPH Aliphatic/Aromatic Ranges													
Prepared by method SW846 3545A													
	C9-C18 Aliphatic Hydrocarbons	< 12.0		mg/kg dry	12.0	1.76	1	MADEP EPH 5/2004 R	18-Jan-12	24-Jan-12	MP	1201380	
	C19-C36 Aliphatic Hydrocarbons	< 12.0		mg/kg dry	12.0	5.85	1	"	"	"	"	"	
	C11-C22 Aromatic Hydrocarbons	< 12.0		mg/kg dry	12.0	4.33	1	"	"	"	"	"	
	Unadjusted C11-C22 Aromatic Hydrocarbons	< 12.0		mg/kg dry	12.0	4.33	1	"	"	"	"	"	
	Total Petroleum Hydrocarbons	< 12.0		mg/kg dry	12.0	11.9	1	"	"	"	"	"	
	Unadjusted Total Petroleum Hydrocarbons	< 12.0		mg/kg dry	12.0	11.9	1	"	"	"	"	"	
EPH Target PAH Analytes													
Prepared by method SW846 3545A													
91-20-3	Naphthalene	< 0.398		mg/kg dry	0.398	0.208	1	"	"	"	"	"	
91-57-6	2-Methylnaphthalene	< 0.398		mg/kg dry	0.398	0.208	1	"	"	"	"	"	
208-96-8	Acenaphthylene	< 0.398		mg/kg dry	0.398	0.233	1	"	"	"	"	"	
83-32-9	Acenaphthene	< 0.398		mg/kg dry	0.398	0.233	1	"	"	"	"	"	
86-73-7	Fluorene	< 0.398		mg/kg dry	0.398	0.235	1	"	"	"	"	"	
85-01-8	Phenanthrene	< 0.398		mg/kg dry	0.398	0.271	1	"	"	"	"	"	
120-12-7	Anthracene	< 0.398		mg/kg dry	0.398	0.295	1	"	"	"	"	"	
206-44-0	Fluoranthene	< 0.398		mg/kg dry	0.398	0.267	1	"	"	"	"	"	
129-00-0	Pyrene	< 0.398		mg/kg dry	0.398	0.287	1	"	"	"	"	"	
56-55-3	Benzo (a) anthracene	< 0.398		mg/kg dry	0.398	0.289	1	"	"	"	"	"	
218-01-9	Chrysene	< 0.398		mg/kg dry	0.398	0.310	1	"	"	"	"	"	
205-99-2	Benzo (b) fluoranthene	< 0.398		mg/kg dry	0.398	0.355	1	"	"	"	"	"	
207-08-9	Benzo (k) fluoranthene	< 0.398		mg/kg dry	0.398	0.332	1	"	"	"	"	"	
50-32-8	Benzo (a) pyrene	< 0.398		mg/kg dry	0.398	0.268	1	"	"	"	"	"	
193-39-5	Indeno (1,2,3-cd) pyrene	< 0.398		mg/kg dry	0.398	0.354	1	"	"	"	"	"	
53-70-3	Dibenzo (a,h) anthracene	< 0.398		mg/kg dry	0.398	0.289	1	"	"	"	"	"	
191-24-2	Benzo (g,h,i) perylene	< 0.398		mg/kg dry	0.398	0.298	1	"	"	"	"	"	
Surrogate recoveries:													
3386-33-2	*1-Chlorooctadecane*	*53*			*40-140 %*			"	"	"	"	"	
84-15-1	*Ortho-Terphenyl*	*51*			*40-140 %*			"	"	"	"	"	
321-60-8	*2-Fluorobiphenyl*	*68*			*40-140 %*			"	"	"	"	"	
General Chemistry Parameters													
	% Solids	83.1		%			1	SM2540 G Mod.	17-Jan-12	17-Jan-12	DT	1201291	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-17 6-8' SB42546-10	1753-03-01	Soil	11-Jan-12 15:28	16-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
	VOC Extraction	**Field extracted**		N/A			1	VOC Soil Extraction			BD	1201301	
Volatile Organic Compounds													
Prepared by method SW846 5035A Soil (low level)							Initial weight: 4.47 g						
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 8.7		µg/kg dry	8.7	5.8	1	SW846 8260C	18-Jan-12	19-Jan-12	JRO	1201366	
67-64-1	Acetone	**91.8**		µg/kg dry	87.0	65.4	1	"	"	"	"	"	
107-13-1	Acrylonitrile	< 8.7		µg/kg dry	8.7	7.8	1	"	"	"	"	"	
71-43-2	Benzene	< 8.7		µg/kg dry	8.7	4.6	1	"	"	"	"	"	
108-86-1	Bromobenzene	< 8.7		µg/kg dry	8.7	5.6	1	"	"	"	"	"	
74-97-5	Bromochloromethane	< 8.7		µg/kg dry	8.7	2.9	1	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 8.7		µg/kg dry	8.7	3.3	1	"	"	"	"	"	
75-25-2	Bromoform	< 8.7		µg/kg dry	8.7	6.0	1	"	"	"	"	"	
74-83-9	Bromomethane	< 17.4		µg/kg dry	17.4	15.7	1	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	< 87.0		µg/kg dry	87.0	74.7	1	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 8.7		µg/kg dry	8.7	4.3	1	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 8.7		µg/kg dry	8.7	8.4	1	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 8.7		µg/kg dry	8.7	6.3	1	"	"	"	"	"	
75-15-0	Carbon disulfide	< 17.4		µg/kg dry	17.4	12.4	1	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 8.7		µg/kg dry	8.7	8.7	1	"	"	"	"	"	
108-90-7	Chlorobenzene	< 8.7		µg/kg dry	8.7	4.9	1	"	"	"	"	"	
75-00-3	Chloroethane	< 17.4		µg/kg dry	17.4	12.3	1	"	"	"	"	"	
67-66-3	Chloroform	< 8.7		µg/kg dry	8.7	4.3	1	"	"	"	"	"	
74-87-3	Chloromethane	< 17.4		µg/kg dry	17.4	4.4	1	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 8.7		µg/kg dry	8.7	5.3	1	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 8.7		µg/kg dry	8.7	7.8	1	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	< 17.4		µg/kg dry	17.4	16.5	1	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 8.7		µg/kg dry	8.7	4.2	1	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 8.7		µg/kg dry	8.7	5.4	1	"	"	"	"	"	
74-95-3	Dibromomethane	< 8.7		µg/kg dry	8.7	8.7	1	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 8.7		µg/kg dry	8.7	7.0	1	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 8.7		µg/kg dry	8.7	8.7	1	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 8.7		µg/kg dry	8.7	5.9	1	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 17.4		µg/kg dry	17.4	14.7	1	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 8.7		µg/kg dry	8.7	7.9	1	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 8.7		µg/kg dry	8.7	4.9	1	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 8.7		µg/kg dry	8.7	4.3	1	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	**301**		µg/kg dry	8.7	3.7	1	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 8.7		µg/kg dry	8.7	7.2	1	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 8.7		µg/kg dry	8.7	4.4	1	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 8.7		µg/kg dry	8.7	4.4	1	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 8.7		µg/kg dry	8.7	3.5	1	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 8.7		µg/kg dry	8.7	5.4	1	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 8.7		µg/kg dry	8.7	4.7	1	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 8.7		µg/kg dry	8.7	2.5	1	"	"	"	"	"	
100-41-4	Ethylbenzene	< 8.7		µg/kg dry	8.7	5.3	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-17 6-8' SB42546-10	1753-03-01	Soil	11-Jan-12 15:28	16-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds													
Prepared by method SW846 5035A Soil (low level)							Initial weight: 4.47 g						
87-68-3	Hexachlorobutadiene	< 8.7		µg/kg dry	8.7	7.5	1	SW846 8260C	18-Jan-12	19-Jan-12	JRO	1201366	
591-78-6	2-Hexanone (MBK)	< 87.0		µg/kg dry	87.0	22.2	1	"	"	"	"	"	
98-82-8	Isopropylbenzene	< 8.7		µg/kg dry	8.7	4.4	1	"	"	"	"	"	
99-87-6	4-Isopropyltoluene	< 8.7		µg/kg dry	8.7	3.6	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 8.7		µg/kg dry	8.7	6.3	1	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 87.0		µg/kg dry	87.0	28.3	1	"	"	"	"	"	
75-09-2	Methylene chloride	< 17.4		µg/kg dry	17.4	4.4	1	"	"	"	"	"	
91-20-3	Naphthalene	< 8.7		µg/kg dry	8.7	5.4	1	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 8.7		µg/kg dry	8.7	5.2	1	"	"	"	"	"	
100-42-5	Styrene	< 8.7		µg/kg dry	8.7	6.4	1	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 8.7		µg/kg dry	8.7	8.4	1	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 8.7		µg/kg dry	8.7	6.6	1	"	"	"	"	"	
127-18-4	Tetrachloroethene	**203**		µg/kg dry	8.7	5.0	1	"	"	"	"	"	
108-88-3	Toluene	< 8.7		µg/kg dry	8.7	7.8	1	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 8.7		µg/kg dry	8.7	7.5	1	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 8.7		µg/kg dry	8.7	6.5	1	"	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 8.7		µg/kg dry	8.7	6.2	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 8.7		µg/kg dry	8.7	7.0	1	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 8.7		µg/kg dry	8.7	7.5	1	"	"	"	"	"	
79-01-6	Trichloroethene	**2,770**	E	µg/kg dry	8.7	6.7	1	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 8.7		µg/kg dry	8.7	3.5	1	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 8.7		µg/kg dry	8.7	3.9	1	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 8.7		µg/kg dry	8.7	2.8	1	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 8.7		µg/kg dry	8.7	8.6	1	"	"	"	"	"	
75-01-4	Vinyl chloride	**37.9**		µg/kg dry	8.7	8.2	1	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 17.4		µg/kg dry	17.4	16.9	1	"	"	"	"	"	
95-47-6	o-Xylene	< 8.7		µg/kg dry	8.7	5.9	1	"	"	"	"	"	
109-99-9	Tetrahydrofuran	< 17.4		µg/kg dry	17.4	16.1	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 8.7		µg/kg dry	8.7	8.1	1	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	< 8.7		µg/kg dry	8.7	6.9	1	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 8.7		µg/kg dry	8.7	3.0	1	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 8.7		µg/kg dry	8.7	2.8	1	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 87.0		µg/kg dry	87.0	49.3	1	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 174		µg/kg dry	174	143	1	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-buten e	< 43.5		µg/kg dry	43.5	22.3	1	"	"	"	"	"	
64-17-5	Ethanol	< 3480		µg/kg dry	3480	728	1	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*98*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*101*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*113*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*102*			*70-130 %*			"	"	"	"	"	
Re-analysis of Volatile Organic Compounds			GS1										

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-17 6-8' SB42546-10	1753-03-01	Soil	11-Jan-12 15:28	16-Jan-12

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Re-analysis of Volatile Organic Compounds			GS1										
Prepared by method SW846 5030 Soil (high level)							Initial weight: 9.41 g						
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 471		µg/kg dry	471	314	200	SW846 8260C	20-Jan-12	20-Jan-12	naa	1201627	
67-64-1	Acetone	< 4710		µg/kg dry	4710	3540	200	"	"	"	"	"	
107-13-1	Acrylonitrile	< 471		µg/kg dry	471	422	200	"	"	"	"	"	
71-43-2	Benzene	< 471		µg/kg dry	471	247	200	"	"	"	"	"	
108-86-1	Bromobenzene	< 471		µg/kg dry	471	301	200	"	"	"	"	"	
74-97-5	Bromochloromethane	< 471		µg/kg dry	471	155	200	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 471		µg/kg dry	471	178	200	"	"	"	"	"	
75-25-2	Bromoform	< 471		µg/kg dry	471	326	200	"	"	"	"	"	
74-83-9	Bromomethane	< 942		µg/kg dry	942	849	200	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	< 4710		µg/kg dry	4710	4040	200	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 471		µg/kg dry	471	235	200	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 471		µg/kg dry	471	457	200	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 471		µg/kg dry	471	341	200	"	"	"	"	"	
75-15-0	Carbon disulfide	< 942		µg/kg dry	942	673	200	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 471		µg/kg dry	471	468	200	"	"	"	"	"	
108-90-7	Chlorobenzene	< 471		µg/kg dry	471	263	200	"	"	"	"	"	
75-00-3	Chloroethane	< 942		µg/kg dry	942	667	200	"	"	"	"	"	
67-66-3	Chloroform	< 471		µg/kg dry	471	230	200	"	"	"	"	"	
74-87-3	Chloromethane	< 942		µg/kg dry	942	237	200	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 471		µg/kg dry	471	287	200	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 471		µg/kg dry	471	422	200	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	< 942		µg/kg dry	942	891	200	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 471		µg/kg dry	471	226	200	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 471		µg/kg dry	471	292	200	"	"	"	"	"	
74-95-3	Dibromomethane	< 471		µg/kg dry	471	470	200	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 471		µg/kg dry	471	379	200	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 471		µg/kg dry	471	469	200	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 471		µg/kg dry	471	318	200	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 942		µg/kg dry	942	795	200	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 471		µg/kg dry	471	430	200	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 471		µg/kg dry	471	263	200	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 471		µg/kg dry	471	234	200	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	< 471		µg/kg dry	471	198	200	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 471		µg/kg dry	471	391	200	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 471		µg/kg dry	471	240	200	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 471		µg/kg dry	471	237	200	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 471		µg/kg dry	471	190	200	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 471		µg/kg dry	471	291	200	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 471		µg/kg dry	471	257	200	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 471		µg/kg dry	471	133	200	"	"	"	"	"	
100-41-4	Ethylbenzene	< 471		µg/kg dry	471	287	200	"	"	"	"	"	
87-68-3	Hexachlorobutadiene	< 471		µg/kg dry	471	406	200	"	"	"	"	"	
591-78-6	2-Hexanone (MBK)	< 4710		µg/kg dry	4710	1200	200	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-17 6-8' SB42546-10	1753-03-01	Soil	11-Jan-12 15:28	16-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Re-analysis of Volatile Organic Compounds			GS1										
Prepared by method SW846 5030 Soil (high level)							Initial weight: 9.41 g						
98-82-8	Isopropylbenzene	< 471		µg/kg dry	471	237	200	SW846 8260C	20-Jan-12	20-Jan-12	naa	1201627	
99-87-6	4-Isopropyltoluene	< 471		µg/kg dry	471	195	200	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 471		µg/kg dry	471	343	200	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 4710		µg/kg dry	4710	1530	200	"	"	"	"	"	
75-09-2	Methylene chloride	< 942		µg/kg dry	942	239	200	"	"	"	"	"	
91-20-3	Naphthalene	< 471		µg/kg dry	471	293	200	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 471		µg/kg dry	471	283	200	"	"	"	"	"	
100-42-5	Styrene	< 471		µg/kg dry	471	349	200	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 471		µg/kg dry	471	452	200	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 471		µg/kg dry	471	358	200	"	"	"	"	"	
127-18-4	Tetrachloroethene	< 471		µg/kg dry	471	270	200	"	"	"	"	"	
108-88-3	Toluene	< 471		µg/kg dry	471	422	200	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 471		µg/kg dry	471	408	200	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 471		µg/kg dry	471	354	200	"	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 471		µg/kg dry	471	334	200	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 471		µg/kg dry	471	377	200	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 471		µg/kg dry	471	405	200	"	"	"	"	"	
79-01-6	Trichloroethene	**4,360**		µg/kg dry	471	361	200	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 471		µg/kg dry	471	190	200	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 471		µg/kg dry	471	213	200	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 471		µg/kg dry	471	154	200	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 471		µg/kg dry	471	467	200	"	"	"	"	"	
75-01-4	Vinyl chloride	< 471		µg/kg dry	471	442	200	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 942		µg/kg dry	942	914	200	"	"	"	"	"	
95-47-6	o-Xylene	< 471		µg/kg dry	471	322	200	"	"	"	"	"	
109-99-9	Tetrahydrofuran	< 942		µg/kg dry	942	872	200	"	"	"	"	"	
60-29-7	Ethyl ether	< 471		µg/kg dry	471	440	200	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	< 471		µg/kg dry	471	372	200	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 471		µg/kg dry	471	164	200	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 471		µg/kg dry	471	152	200	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 4710		µg/kg dry	4710	2670	200	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 9420		µg/kg dry	9420	7720	200	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-buten e	< 2360		µg/kg dry	2360	1210	200	"	"	"	"	"	
64-17-5	Ethanol	< 188000		µg/kg dry	188000	39400	200	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*100*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*99*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*103*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*90*			*70-130 %*			"	"	"	"	"	
VPH Aliphatic/Aromatic Carbon Ranges			VC10										
Prepared by method VPH - EPA 5030B							Initial weight: 9.41 g						

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-17 6-8' SB42546-10	1753-03-01	Soil	11-Jan-12 15:28	16-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
VPH Aliphatic/Aromatic Carbon Ranges			VC10										
Prepared by method VPH - EPA 5030B							Initial weight: 9.41 g						
	C5-C8 Aliphatic Hydrocarbons	2.41		mg/kg dry	1.77	0.166	50	MADEP VPH 5/2004 Rev. 1.1	24-Jan-12	25-Jan-12	mp	1201825	
	C9-C12 Aliphatic Hydrocarbons	< 0.589		mg/kg dry	0.589	0.0859	50	"	"	"	"	"	
	C9-C10 Aromatic Hydrocarbons	< 0.589		mg/kg dry	0.589	0.0152	50	"	"	"	"	"	
	Unadjusted C5-C8 Aliphatic Hydrocarbons	2.41		mg/kg dry	1.77	0.135	50	"	"	"	"	"	
	Unadjusted C9-C12 Aliphatic Hydrocarbons	< 0.589		mg/kg dry	0.589	0.0807	50	"	"	"	"	"	
VPH Target Analytes			VC10										
Prepared by method VPH - EPA 5030B							Initial weight: 9.41 g						
71-43-2	Benzene	< 0.1		mg/kg dry	0.1	0.03	50	"	"	"	"	"	
100-41-4	Ethylbenzene	< 0.1		mg/kg dry	0.1	0.03	50	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 0.1		mg/kg dry	0.1	0.02	50	"	"	"	"	"	
91-20-3	Naphthalene	< 0.1		mg/kg dry	0.1	0.02	50	"	"	"	"	"	
108-88-3	Toluene	< 0.1		mg/kg dry	0.1	0.03	50	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 0.2		mg/kg dry	0.2	0.07	50	"	"	"	"	"	
95-47-6	o-Xylene	< 0.1		mg/kg dry	0.1	0.03	50	"	"	"	"	"	
Surrogate recoveries:													
615-59-8	*2,5-Dibromotoluene (FID)*	*98*			*70-130 %*			"	"	"	"	"	
615-59-8	*2,5-Dibromotoluene (PID)*	*87*			*70-130 %*			"	"	"	"	"	
Extractable Petroleum Hydrocarbons													
EPH Aliphatic/Aromatic Ranges													
Prepared by method SW846 3545A													
	C9-C18 Aliphatic Hydrocarbons	< 12.7		mg/kg dry	12.7	1.87	1	MADEP EPH 5/2004 R	18-Jan-12	24-Jan-12	MP	1201380	
	C19-C36 Aliphatic Hydrocarbons	< 12.7		mg/kg dry	12.7	6.22	1	"	"	"	"	"	
	C11-C22 Aromatic Hydrocarbons	< 12.7		mg/kg dry	12.7	4.60	1	"	"	"	"	"	
	Unadjusted C11-C22 Aromatic Hydrocarbons	< 12.7		mg/kg dry	12.7	4.60	1	"	"	"	"	"	
	Total Petroleum Hydrocarbons	< 12.7		mg/kg dry	12.7	12.7	1	"	"	"	"	"	
	Unadjusted Total Petroleum Hydrocarbons	< 12.7		mg/kg dry	12.7	12.7	1	"	"	"	"	"	
EPH Target PAH Analytes													
Prepared by method SW846 3545A													
91-20-3	Naphthalene	< 0.423		mg/kg dry	0.423	0.221	1	"	"	"	"	"	
91-57-6	2-Methylnaphthalene	< 0.423		mg/kg dry	0.423	0.221	1	"	"	"	"	"	
208-96-8	Acenaphthylene	< 0.423		mg/kg dry	0.423	0.248	1	"	"	"	"	"	
83-32-9	Acenaphthene	< 0.423		mg/kg dry	0.423	0.247	1	"	"	"	"	"	
86-73-7	Fluorene	< 0.423		mg/kg dry	0.423	0.250	1	"	"	"	"	"	
85-01-8	Phenanthrene	< 0.423		mg/kg dry	0.423	0.288	1	"	"	"	"	"	
120-12-7	Anthracene	< 0.423		mg/kg dry	0.423	0.314	1	"	"	"	"	"	
206-44-0	Fluoranthene	< 0.423		mg/kg dry	0.423	0.284	1	"	"	"	"	"	
129-00-0	Pyrene	< 0.423		mg/kg dry	0.423	0.305	1	"	"	"	"	"	
56-55-3	Benzo (a) anthracene	< 0.423		mg/kg dry	0.423	0.307	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-17 6-8' SB42546-10	1753-03-01	Soil	11-Jan-12 15:28	16-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Extractable Petroleum Hydrocarbons													
EPH Target PAH Analytes													
Prepared by method SW846 3545A													
218-01-9	Chrysene	< 0.423		mg/kg dry	0.423	0.329	1	MADEP EPH 5/2004 R	18-Jan-12	24-Jan-12	MP	1201380	
205-99-2	Benzo (b) fluoranthene	< 0.423		mg/kg dry	0.423	0.377	1	"	"	"	"	"	
207-08-9	Benzo (k) fluoranthene	< 0.423		mg/kg dry	0.423	0.353	1	"	"	"	"	"	
50-32-8	Benzo (a) pyrene	< 0.423		mg/kg dry	0.423	0.285	1	"	"	"	"	"	
193-39-5	Indeno (1,2,3-cd) pyrene	< 0.423		mg/kg dry	0.423	0.376	1	"	"	"	"	"	
53-70-3	Dibenzo (a,h) anthracene	< 0.423		mg/kg dry	0.423	0.307	1	"	"	"	"	"	
191-24-2	Benzo (g,h,i) perylene	< 0.423		mg/kg dry	0.423	0.317	1	"	"	"	"	"	
Surrogate recoveries:													
3386-33-2	*1-Chlorooctadecane*	*62*			*40-140 %*			"	"	"	"	"	
84-15-1	*Ortho-Terphenyl*	*61*			*40-140 %*			"	"	"	"	"	
321-60-8	*2-Fluorobiphenyl*	*78*			*40-140 %*			"	"	"	"	"	
General Chemistry Parameters													
	% Solids	**77.3**		%			1	SM2540 G Mod.	17-Jan-12	17-Jan-12	DT	1201291	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-19 7-9' SB42546-11	1753-03-01	Soil	12-Jan-12 13:00	16-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
	VOC Extraction	**Field extracted**		N/A			1	VOC Soil Extraction			BD	1201301	
Volatile Organic Compounds													
Prepared by method SW846 5035A Soil (low level)							Initial weight: 4.59 g						
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 8.6		µg/kg dry	8.6	5.7	1	SW846 8260C	18-Jan-12	19-Jan-12	JRO	1201366	
67-64-1	Acetone	< 85.5		µg/kg dry	85.5	64.3	1	"	"	"	"	"	
107-13-1	Acrylonitrile	< 8.6		µg/kg dry	8.6	7.7	1	"	"	"	"	"	
71-43-2	Benzene	< 8.6		µg/kg dry	8.6	4.5	1	"	"	"	"	"	
108-86-1	Bromobenzene	< 8.6		µg/kg dry	8.6	5.5	1	"	"	"	"	"	
74-97-5	Bromochloromethane	< 8.6		µg/kg dry	8.6	2.8	1	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 8.6		µg/kg dry	8.6	3.2	1	"	"	"	"	"	
75-25-2	Bromoform	< 8.6		µg/kg dry	8.6	5.9	1	"	"	"	"	"	
74-83-9	Bromomethane	< 17.1		µg/kg dry	17.1	15.4	1	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	< 85.5		µg/kg dry	85.5	73.4	1	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 8.6		µg/kg dry	8.6	4.3	1	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 8.6		µg/kg dry	8.6	8.3	1	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 8.6		µg/kg dry	8.6	6.2	1	"	"	"	"	"	
75-15-0	Carbon disulfide	< 17.1		µg/kg dry	17.1	12.2	1	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 8.6		µg/kg dry	8.6	8.5	1	"	"	"	"	"	
108-90-7	Chlorobenzene	< 8.6		µg/kg dry	8.6	4.8	1	"	"	"	"	"	
75-00-3	Chloroethane	< 17.1		µg/kg dry	17.1	12.1	1	"	"	"	"	"	
67-66-3	Chloroform	< 8.6		µg/kg dry	8.6	4.2	1	"	"	"	"	"	
74-87-3	Chloromethane	< 17.1		µg/kg dry	17.1	4.3	1	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 8.6		µg/kg dry	8.6	5.2	1	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 8.6		µg/kg dry	8.6	7.7	1	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	< 17.1		µg/kg dry	17.1	16.2	1	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 8.6		µg/kg dry	8.6	4.1	1	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 8.6		µg/kg dry	8.6	5.3	1	"	"	"	"	"	
74-95-3	Dibromomethane	< 8.6		µg/kg dry	8.6	8.5	1	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 8.6		µg/kg dry	8.6	6.9	1	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 8.6		µg/kg dry	8.6	8.5	1	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 8.6		µg/kg dry	8.6	5.8	1	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 17.1		µg/kg dry	17.1	14.4	1	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 8.6		µg/kg dry	8.6	7.8	1	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 8.6		µg/kg dry	8.6	4.8	1	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 8.6		µg/kg dry	8.6	4.2	1	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	**5,530**	E	µg/kg dry	8.6	3.6	1	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	**52.0**		µg/kg dry	8.6	7.1	1	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 8.6		µg/kg dry	8.6	4.4	1	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 8.6		µg/kg dry	8.6	4.3	1	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 8.6		µg/kg dry	8.6	3.4	1	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 8.6		µg/kg dry	8.6	5.3	1	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 8.6		µg/kg dry	8.6	4.7	1	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 8.6		µg/kg dry	8.6	2.4	1	"	"	"	"	"	
100-41-4	Ethylbenzene	< 8.6		µg/kg dry	8.6	5.2	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-19 7-9' SB42546-11	1753-03-01	Soil	12-Jan-12 13:00	16-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds													
Prepared by method SW846 5035A Soil (low level)							Initial weight: 4.59 g						
87-68-3	Hexachlorobutadiene	< 8.6		µg/kg dry	8.6	7.4	1	SW846 8260C	18-Jan-12	19-Jan-12	JRO	1201366	
591-78-6	2-Hexanone (MBK)	< 85.5		µg/kg dry	85.5	21.8	1	"	"	"	"	"	
98-82-8	Isopropylbenzene	< 8.6		µg/kg dry	8.6	4.3	1	"	"	"	"	"	
99-87-6	4-Isopropyltoluene	< 8.6		µg/kg dry	8.6	3.5	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 8.6		µg/kg dry	8.6	6.2	1	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 85.5		µg/kg dry	85.5	27.8	1	"	"	"	"	"	
75-09-2	Methylene chloride	< 17.1		µg/kg dry	17.1	4.3	1	"	"	"	"	"	
91-20-3	Naphthalene	< 8.6		µg/kg dry	8.6	5.3	1	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 8.6		µg/kg dry	8.6	5.1	1	"	"	"	"	"	
100-42-5	Styrene	< 8.6		µg/kg dry	8.6	6.3	1	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 8.6		µg/kg dry	8.6	8.2	1	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 8.6		µg/kg dry	8.6	6.5	1	"	"	"	"	"	
127-18-4	Tetrachloroethene	**2,250**	E	µg/kg dry	8.6	4.9	1	"	"	"	"	"	
108-88-3	Toluene	< 8.6		µg/kg dry	8.6	7.7	1	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 8.6		µg/kg dry	8.6	7.4	1	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 8.6		µg/kg dry	8.6	6.4	1	"	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 8.6		µg/kg dry	8.6	6.1	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 8.6		µg/kg dry	8.6	6.9	1	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 8.6		µg/kg dry	8.6	7.4	1	"	"	"	"	"	
79-01-6	Trichloroethene	**12,200**	E	µg/kg dry	8.6	6.6	1	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 8.6		µg/kg dry	8.6	3.5	1	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 8.6		µg/kg dry	8.6	3.9	1	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 8.6		µg/kg dry	8.6	2.8	1	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 8.6		µg/kg dry	8.6	8.5	1	"	"	"	"	"	
75-01-4	Vinyl chloride	< 8.6		µg/kg dry	8.6	8.0	1	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 17.1		µg/kg dry	17.1	16.6	1	"	"	"	"	"	
95-47-6	o-Xylene	< 8.6		µg/kg dry	8.6	5.8	1	"	"	"	"	"	
109-99-9	Tetrahydrofuran	< 17.1		µg/kg dry	17.1	15.8	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 8.6		µg/kg dry	8.6	8.0	1	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	< 8.6		µg/kg dry	8.6	6.7	1	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 8.6		µg/kg dry	8.6	3.0	1	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 8.6		µg/kg dry	8.6	2.8	1	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 85.5		µg/kg dry	85.5	48.4	1	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 171		µg/kg dry	171	140	1	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-butene	< 42.8		µg/kg dry	42.8	21.9	1	"	"	"	"	"	
64-17-5	Ethanol	< 3420		µg/kg dry	3420	716	1	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*97*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*102*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*115*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*105*			*70-130 %*			"	"	"	"	"	
Re-analysis of Volatile Organic Compounds			GS1										

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Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-19 7-9' SB42546-11	1753-03-01	Soil	12-Jan-12 13:00	16-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Re-analysis of Volatile Organic Compounds			GS1										
Prepared by method SW846 5030 Soil (high level)							Initial weight: 7.36 g						
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 588		µg/kg dry	588	392	200	SW846 8260C	20-Jan-12	20-Jan-12	naa	1201627	
67-64-1	Acetone	< 5880		µg/kg dry	5880	4420	200	"	"	"	"	"	
107-13-1	Acrylonitrile	< 588		µg/kg dry	588	527	200	"	"	"	"	"	
71-43-2	Benzene	< 588		µg/kg dry	588	309	200	"	"	"	"	"	
108-86-1	Bromobenzene	< 588		µg/kg dry	588	375	200	"	"	"	"	"	
74-97-5	Bromochloromethane	< 588		µg/kg dry	588	193	200	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 588		µg/kg dry	588	222	200	"	"	"	"	"	
75-25-2	Bromoform	< 588		µg/kg dry	588	407	200	"	"	"	"	"	
74-83-9	Bromomethane	< 1180		µg/kg dry	1180	1060	200	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	< 5880		µg/kg dry	5880	5050	200	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 588		µg/kg dry	588	294	200	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 588		µg/kg dry	588	571	200	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 588		µg/kg dry	588	425	200	"	"	"	"	"	
75-15-0	Carbon disulfide	< 1180		µg/kg dry	1180	841	200	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 588		µg/kg dry	588	585	200	"	"	"	"	"	
108-90-7	Chlorobenzene	< 588		µg/kg dry	588	329	200	"	"	"	"	"	
75-00-3	Chloroethane	< 1180		µg/kg dry	1180	833	200	"	"	"	"	"	
67-66-3	Chloroform	< 588		µg/kg dry	588	288	200	"	"	"	"	"	
74-87-3	Chloromethane	< 1180		µg/kg dry	1180	296	200	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 588		µg/kg dry	588	358	200	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 588		µg/kg dry	588	527	200	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	< 1180		µg/kg dry	1180	1110	200	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 588		µg/kg dry	588	282	200	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 588		µg/kg dry	588	365	200	"	"	"	"	"	
74-95-3	Dibromomethane	< 588		µg/kg dry	588	587	200	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 588		µg/kg dry	588	474	200	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 588		µg/kg dry	588	585	200	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 588		µg/kg dry	588	397	200	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 1180		µg/kg dry	1180	992	200	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 588		µg/kg dry	588	537	200	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 588		µg/kg dry	588	329	200	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 588		µg/kg dry	588	292	200	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	**8,810**		µg/kg dry	588	247	200	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 588		µg/kg dry	588	488	200	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 588		µg/kg dry	588	299	200	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 588		µg/kg dry	588	296	200	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 588		µg/kg dry	588	237	200	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 588		µg/kg dry	588	363	200	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 588		µg/kg dry	588	321	200	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 588		µg/kg dry	588	166	200	"	"	"	"	"	
100-41-4	Ethylbenzene	< 588		µg/kg dry	588	358	200	"	"	"	"	"	
87-68-3	Hexachlorobutadiene	< 588		µg/kg dry	588	507	200	"	"	"	"	"	
591-78-6	2-Hexanone (MBK)	< 5880		µg/kg dry	5880	1500	200	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-19 7-9' SB42546-11	1753-03-01	Soil	12-Jan-12 13:00	16-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Re-analysis of Volatile Organic Compounds			GS1										
Prepared by method SW846 5030 Soil (high level)							Initial weight: 7.36 g						
98-82-8	Isopropylbenzene	< 588		µg/kg dry	588	295	200	SW846 8260C	20-Jan-12	20-Jan-12	naa	1201627	
99-87-6	4-Isopropyltoluene	< 588		µg/kg dry	588	244	200	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 588		µg/kg dry	588	428	200	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 5880		µg/kg dry	5880	1910	200	"	"	"	"	"	
75-09-2	Methylene chloride	< 1180		µg/kg dry	1180	299	200	"	"	"	"	"	
91-20-3	Naphthalene	< 588		µg/kg dry	588	365	200	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 588		µg/kg dry	588	353	200	"	"	"	"	"	
100-42-5	Styrene	< 588		µg/kg dry	588	435	200	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 588		µg/kg dry	588	565	200	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 588		µg/kg dry	588	447	200	"	"	"	"	"	
127-18-4	Tetrachloroethene	**3,570**		µg/kg dry	588	337	200	"	"	"	"	"	
108-88-3	Toluene	< 588		µg/kg dry	588	527	200	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 588		µg/kg dry	588	509	200	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 588		µg/kg dry	588	442	200	"	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 588		µg/kg dry	588	417	200	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 588		µg/kg dry	588	471	200	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 588		µg/kg dry	588	506	200	"	"	"	"	"	
79-01-6	Trichloroethene	**43,100**		µg/kg dry	588	451	200	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 588		µg/kg dry	588	238	200	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 588		µg/kg dry	588	266	200	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 588		µg/kg dry	588	192	200	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 588		µg/kg dry	588	583	200	"	"	"	"	"	
75-01-4	Vinyl chloride	< 588		µg/kg dry	588	552	200	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 1180		µg/kg dry	1180	1140	200	"	"	"	"	"	
95-47-6	o-Xylene	< 588		µg/kg dry	588	402	200	"	"	"	"	"	
109-99-9	Tetrahydrofuran	< 1180		µg/kg dry	1180	1090	200	"	"	"	"	"	
60-29-7	Ethyl ether	< 588		µg/kg dry	588	549	200	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	< 588		µg/kg dry	588	464	200	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 588		µg/kg dry	588	205	200	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 588		µg/kg dry	588	189	200	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 5880		µg/kg dry	5880	3330	200	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 11800		µg/kg dry	11800	9630	200	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-buten e	< 2940		µg/kg dry	2940	1510	200	"	"	"	"	"	
64-17-5	Ethanol	< 235000		µg/kg dry	235000	49200	200	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*99*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*98*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*112*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*90*			*70-130 %*			"	"	"	"	"	
VPH Aliphatic/Aromatic Carbon Ranges			VC10										
Prepared by method VPH - EPA 5030B							Initial weight: 7.36 g						

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-19 7-9' SB42546-11	1753-03-01	Soil	12-Jan-12 13:00	16-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
VPH Aliphatic/Aromatic Carbon Ranges			VC10										
Prepared by method VPH - EPA 5030B							Initial weight: 7.36 g						
	C5-C8 Aliphatic Hydrocarbons	16.4		mg/kg dry	2.21	0.207	50	MADEP VPH 5/2004 Rev. 1.1	24-Jan-12	25-Jan-12	mp	1201825	
	C9-C12 Aliphatic Hydrocarbons	< 0.735		mg/kg dry	0.735	0.107	50	"	"	"	"	"	
	C9-C10 Aromatic Hydrocarbons	< 0.735		mg/kg dry	0.735	0.0190	50	"	"	"	"	"	
	Unadjusted C5-C8 Aliphatic Hydrocarbons	16.4		mg/kg dry	2.21	0.169	50	"	"	"	"	"	
	Unadjusted C9-C12 Aliphatic Hydrocarbons	< 0.735		mg/kg dry	0.735	0.101	50	"	"	"	"	"	
VPH Target Analytes			VC10										
Prepared by method VPH - EPA 5030B							Initial weight: 7.36 g						
71-43-2	Benzene	< 0.1		mg/kg dry	0.1	0.03	50	"	"	"	"	"	
100-41-4	Ethylbenzene	< 0.1		mg/kg dry	0.1	0.04	50	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 0.1		mg/kg dry	0.1	0.02	50	"	"	"	"	"	
91-20-3	Naphthalene	< 0.1		mg/kg dry	0.1	0.03	50	"	"	"	"	"	
108-88-3	Toluene	< 0.1		mg/kg dry	0.1	0.03	50	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 0.3		mg/kg dry	0.3	0.09	50	"	"	"	"	"	
95-47-6	o-Xylene	< 0.1		mg/kg dry	0.1	0.04	50	"	"	"	"	"	
Surrogate recoveries:													
615-59-8	*2,5-Dibromotoluene (FID)*	*103*			*70-130 %*			"	"	"	"	"	
615-59-8	*2,5-Dibromotoluene (PID)*	*91*			*70-130 %*			"	"	"	"	"	
Extractable Petroleum Hydrocarbons													
EPH Aliphatic/Aromatic Ranges													
Prepared by method SW846 3545A													
	C9-C18 Aliphatic Hydrocarbons	< 12.8		mg/kg dry	12.8	1.88	1	MADEP EPH 5/2004 R	18-Jan-12	24-Jan-12	MP	1201380	
	C19-C36 Aliphatic Hydrocarbons	< 12.8		mg/kg dry	12.8	6.27	1	"	"	"	"	"	
	C11-C22 Aromatic Hydrocarbons	< 12.8		mg/kg dry	12.8	4.64	1	"	"	"	"	"	
	Unadjusted C11-C22 Aromatic Hydrocarbons	< 12.8		mg/kg dry	12.8	4.64	1	"	"	"	"	"	
	Total Petroleum Hydrocarbons	< 12.8		mg/kg dry	12.8	12.8	1	"	"	"	"	"	
	Unadjusted Total Petroleum Hydrocarbons	< 12.8		mg/kg dry	12.8	12.8	1	"	"	"	"	"	
EPH Target PAH Analytes													
Prepared by method SW846 3545A													
91-20-3	Naphthalene	< 0.427		mg/kg dry	0.427	0.223	1	"	"	"	"	"	
91-57-6	2-Methylnaphthalene	< 0.427		mg/kg dry	0.427	0.223	1	"	"	"	"	"	
208-96-8	Acenaphthylene	< 0.427		mg/kg dry	0.427	0.250	1	"	"	"	"	"	
83-32-9	Acenaphthene	< 0.427		mg/kg dry	0.427	0.249	1	"	"	"	"	"	
86-73-7	Fluorene	< 0.427		mg/kg dry	0.427	0.252	1	"	"	"	"	"	
85-01-8	Phenanthrene	< 0.427		mg/kg dry	0.427	0.291	1	"	"	"	"	"	
120-12-7	Anthracene	< 0.427		mg/kg dry	0.427	0.316	1	"	"	"	"	"	
206-44-0	Fluoranthene	< 0.427		mg/kg dry	0.427	0.286	1	"	"	"	"	"	
129-00-0	Pyrene	< 0.427		mg/kg dry	0.427	0.308	1	"	"	"	"	"	
56-55-3	Benzo (a) anthracene	< 0.427		mg/kg dry	0.427	0.309	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-19 7-9' SB42546-11	1753-03-01	Soil	12-Jan-12 13:00	16-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Extractable Petroleum Hydrocarbons													
EPH Target PAH Analytes													
Prepared by method SW846 3545A													
218-01-9	Chrysene	< 0.427		mg/kg dry	0.427	0.332	1	MADEP EPH 5/2004 R	18-Jan-12	24-Jan-12	MP	1201380	
205-99-2	Benzo (b) fluoranthene	< 0.427		mg/kg dry	0.427	0.380	1	"	"	"	"	"	
207-08-9	Benzo (k) fluoranthene	< 0.427		mg/kg dry	0.427	0.356	1	"	"	"	"	"	
50-32-8	Benzo (a) pyrene	< 0.427		mg/kg dry	0.427	0.287	1	"	"	"	"	"	
193-39-5	Indeno (1,2,3-cd) pyrene	< 0.427		mg/kg dry	0.427	0.379	1	"	"	"	"	"	
53-70-3	Dibenzo (a,h) anthracene	< 0.427		mg/kg dry	0.427	0.309	1	"	"	"	"	"	
191-24-2	Benzo (g,h,i) perylene	< 0.427		mg/kg dry	0.427	0.320	1	"	"	"	"	"	
Surrogate recoveries:													
3386-33-2	*1-Chlorooctadecane*	*53*			*40-140 %*			"	"	"	"	"	
84-15-1	*Ortho-Terphenyl*	*52*			*40-140 %*			"	"	"	"	"	
321-60-8	*2-Fluorobiphenyl*	*60*			*40-140 %*			"	"	"	"	"	
General Chemistry Parameters													
	% Solids	**77.1**		%			1	SM2540 G Mod.	17-Jan-12	17-Jan-12	DT	1201291	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-20 1-3' SB42546-12	1753-03-01	Soil	12-Jan-12 13:25	16-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
	VOC Extraction	**Lab extracted**		N/A			1	VOC Soil Extraction	17-Jan-12	17-Jan-12	BD	1201301	
Re-analysis of Volatile Organic Compounds			GS1										
Prepared by method SW846 5030 Soil (high level)							Initial weight: 15.12 g						
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 2450		µg/kg dry	2450	1640	2000	SW846 8260C	23-Jan-12	23-Jan-12	naa	1201751	
67-64-1	Acetone	< 24500		µg/kg dry	24500	18400	2000	"	"	"	"	"	
107-13-1	Acrylonitrile	< 2450		µg/kg dry	2450	2200	2000	"	"	"	"	"	
71-43-2	Benzene	< 2450		µg/kg dry	2450	1290	2000	"	"	"	"	"	
108-86-1	Bromobenzene	< 2450		µg/kg dry	2450	1570	2000	"	"	"	"	"	
74-97-5	Bromochloromethane	< 2450		µg/kg dry	2450	805	2000	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 2450		µg/kg dry	2450	927	2000	"	"	"	"	"	
75-25-2	Bromoform	< 2450		µg/kg dry	2450	1700	2000	"	"	"	"	"	
74-83-9	Bromomethane	< 4910		µg/kg dry	4910	4420	2000	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	< 24500		µg/kg dry	24500	21000	2000	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 2450		µg/kg dry	2450	1220	2000	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 2450		µg/kg dry	2450	2380	2000	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 2450		µg/kg dry	2450	1770	2000	"	"	"	"	"	
75-15-0	Carbon disulfide	< 4910		µg/kg dry	4910	3510	2000	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 2450		µg/kg dry	2450	2440	2000	"	"	"	"	"	
108-90-7	Chlorobenzene	< 2450		µg/kg dry	2450	1370	2000	"	"	"	"	"	
75-00-3	Chloroethane	< 4910		µg/kg dry	4910	3470	2000	"	"	"	"	"	
67-66-3	Chloroform	< 2450		µg/kg dry	2450	1200	2000	"	"	"	"	"	
74-87-3	Chloromethane	< 4910		µg/kg dry	4910	1230	2000	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 2450		µg/kg dry	2450	1490	2000	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 2450		µg/kg dry	2450	2200	2000	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	< 4910		µg/kg dry	4910	4640	2000	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 2450		µg/kg dry	2450	1180	2000	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 2450		µg/kg dry	2450	1520	2000	"	"	"	"	"	
74-95-3	Dibromomethane	< 2450		µg/kg dry	2450	2450	2000	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 2450		µg/kg dry	2450	1980	2000	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 2450		µg/kg dry	2450	2440	2000	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 2450		µg/kg dry	2450	1660	2000	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 4910		µg/kg dry	4910	4140	2000	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 2450		µg/kg dry	2450	2240	2000	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 2450		µg/kg dry	2450	1370	2000	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 2450		µg/kg dry	2450	1220	2000	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	**15,300**		µg/kg dry	2450	1030	2000	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 2450		µg/kg dry	2450	2040	2000	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 2450		µg/kg dry	2450	1250	2000	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 2450		µg/kg dry	2450	1230	2000	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 2450		µg/kg dry	2450	989	2000	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 2450		µg/kg dry	2450	1510	2000	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 2450		µg/kg dry	2450	1340	2000	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 2450		µg/kg dry	2450	692	2000	"	"	"	"	"	
100-41-4	Ethylbenzene	< 2450		µg/kg dry	2450	1490	2000	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-20 1-3' SB42546-12	1753-03-01	Soil	12-Jan-12 13:25	16-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Re-analysis of Volatile Organic Compounds			GS1										
Prepared by method SW846 5030 Soil (high level)							Initial weight: 15.12 g						
87-68-3	Hexachlorobutadiene	< 2450		µg/kg dry	2450	2110	2000	SW846 8260C	23-Jan-12	23-Jan-12	naa	1201751	
591-78-6	2-Hexanone (MBK)	< 24500		µg/kg dry	24500	6260	2000	"	"	"	"	"	
98-82-8	Isopropylbenzene	< 2450		µg/kg dry	2450	1230	2000	"	"	"	"	"	
99-87-6	4-Isopropyltoluene	< 2450		µg/kg dry	2450	1020	2000	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 2450		µg/kg dry	2450	1780	2000	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 24500		µg/kg dry	24500	7980	2000	"	"	"	"	"	
75-09-2	Methylene chloride	< 4910		µg/kg dry	4910	1250	2000	"	"	"	"	"	
91-20-3	Naphthalene	< 2450		µg/kg dry	2450	1520	2000	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 2450		µg/kg dry	2450	1470	2000	"	"	"	"	"	
100-42-5	Styrene	< 2450		µg/kg dry	2450	1820	2000	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 2450		µg/kg dry	2450	2360	2000	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 2450		µg/kg dry	2450	1860	2000	"	"	"	"	"	
127-18-4	Tetrachloroethene	< 2450		µg/kg dry	2450	1400	2000	"	"	"	"	"	
108-88-3	Toluene	< 2450		µg/kg dry	2450	2200	2000	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 2450		µg/kg dry	2450	2120	2000	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 2450		µg/kg dry	2450	1850	2000	"	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 2450		µg/kg dry	2450	1740	2000	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 2450		µg/kg dry	2450	1970	2000	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 2450		µg/kg dry	2450	2110	2000	"	"	"	"	"	
79-01-6	Trichloroethene	**128,000**		µg/kg dry	2450	1880	2000	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 2450		µg/kg dry	2450	991	2000	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 2450		µg/kg dry	2450	1110	2000	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 2450		µg/kg dry	2450	802	2000	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 2450		µg/kg dry	2450	2430	2000	"	"	"	"	"	
75-01-4	Vinyl chloride	< 2450		µg/kg dry	2450	2300	2000	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 4910		µg/kg dry	4910	4760	2000	"	"	"	"	"	
95-47-6	o-Xylene	< 2450		µg/kg dry	2450	1680	2000	"	"	"	"	"	
109-99-9	Tetrahydrofuran	< 4910		µg/kg dry	4910	4540	2000	"	"	"	"	"	
60-29-7	Ethyl ether	< 2450		µg/kg dry	2450	2290	2000	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	< 2450		µg/kg dry	2450	1940	2000	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 2450		µg/kg dry	2450	856	2000	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 2450		µg/kg dry	2450	790	2000	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 24500		µg/kg dry	24500	13900	2000	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 49100		µg/kg dry	49100	40200	2000	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-buten e	< 12300		µg/kg dry	12300	6280	2000	"	"	"	"	"	
64-17-5	Ethanol	< 981000		µg/kg dry	981000	205000	2000	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*99*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*97*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*92*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*93*			*70-130 %*			"	"	"	"	"	
Total Metals by EPA 6000/7000 Series Methods													

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
LS-20 1-3' SB42546-12	1753-03-01	Soil	12-Jan-12 13:25	16-Jan-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Total Metals by EPA 6000/7000 Series Methods													
7440-22-4	Silver	**33.4**		mg/kg dry	1.61	0.247	1	SW846 6010C	19-Jan-12	20-Jan-12	EDT	1201419	
7429-90-5	Aluminum	**4,700**		mg/kg dry	5.35	0.749	1	"	"	"	"	"	
7440-38-2	Arsenic	**37.5**		mg/kg dry	1.61	0.258	1	"	"	"	"	"	
7440-39-3	Barium	**83.9**		mg/kg dry	1.07	0.259	1	"	"	22-Jan-12	"	"	
7440-41-7	Beryllium	< 0.535		mg/kg dry	0.535	0.172	1	"	"	"	"	"	
7440-70-2	Calcium	**2,250**		mg/kg dry	26.8	6.70	1	"	"	20-Jan-12	"	"	
7440-43-9	Cadmium	< 0.535		mg/kg dry	0.535	0.0591	1	"	"	"	"	"	
7440-48-4	Cobalt	**4.86**		mg/kg dry	1.07	0.119	1	"	"	"	"	"	
7440-47-3	Chromium	**12.5**		mg/kg dry	1.07	0.390	1	"	"	"	"	"	
7440-50-8	Copper	**344**		mg/kg dry	1.07	0.120	1	"	"	"	"	"	
7439-89-6	Iron	**25,700**		mg/kg dry	4.28	0.789	1	"	"	22-Jan-12	"	"	
7439-97-6	Mercury	**0.334**		mg/kg dry	0.0308	0.0063	1	SW846 7471B	24-Jan-12	24-Jan-12	AMT	1201420	
7440-09-7	Potassium	**842**		mg/kg dry	53.5	13.4	1	SW846 6010C	19-Jan-12	20-Jan-12	EDT	1201419	
7439-95-4	Magnesium	**2,000**		mg/kg dry	5.35	0.152	1	"	"	"	"	"	
7439-96-5	Manganese	**239**		mg/kg dry	1.07	0.0579	1	"	"	"	"	"	
7440-23-5	Sodium	**152**		mg/kg dry	26.8	3.39	1	"	"	"	"	"	
7440-02-0	Nickel	**14.8**		mg/kg dry	1.07	0.0737	1	"	"	"	"	"	
7439-92-1	Lead	**3,760**		mg/kg dry	1.61	0.190	1	"	"	"	"	"	
7440-36-0	Antimony	**113**		mg/kg dry	5.35	0.235	1	"	"	"	"	"	
7782-49-2	Selenium	< 2.68	R01	mg/kg dry	2.68	0.237	1	"	"	"	"	"	
7440-28-0	Thallium	< 3.21		mg/kg dry	3.21	0.264	1	"	"	"	"	"	
7440-62-2	Vanadium	**28.0**		mg/kg dry	1.61	0.281	1	"	"	"	"	"	
7440-66-6	Zinc	**56.9**		mg/kg dry	1.07	0.232	1	"	"	"	"	"	
TCLP Metals by EPA 1311 & 6000/7000 Series Methods													
	TCLP Extraction	**Completed**		N/A			1	SW846 1311	12-Mar-12	13-Mar-12	KK	1205472	
7439-92-1	Lead	**15.5**		mg/l	0.0150	0.0048	1	SW846 1311/6010C	13-Mar-12	14-Mar-12	LR	1205567	
General Chemistry Parameters													
	% Solids	**89.5**		%			1	SM2540 G Mod.	17-Jan-12	17-Jan-12	DT	1201291	

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201366 - SW846 5035A Soil (low level)										
Blank (1201366-BLK1)					Prepared & Analyzed: 18-Jan-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 5.0		µg/kg wet	5.0						
Acetone	< 50.0		µg/kg wet	50.0						
Acrylonitrile	< 5.0		µg/kg wet	5.0						
Benzene	< 5.0		µg/kg wet	5.0						
Bromobenzene	< 5.0		µg/kg wet	5.0						
Bromochloromethane	< 5.0		µg/kg wet	5.0						
Bromodichloromethane	< 5.0		µg/kg wet	5.0						
Bromoform	< 5.0		µg/kg wet	5.0						
Bromomethane	< 10.0		µg/kg wet	10.0						
2-Butanone (MEK)	< 50.0		µg/kg wet	50.0						
n-Butylbenzene	< 5.0		µg/kg wet	5.0						
sec-Butylbenzene	< 5.0		µg/kg wet	5.0						
tert-Butylbenzene	< 5.0		µg/kg wet	5.0						
Carbon disulfide	< 10.0		µg/kg wet	10.0						
Carbon tetrachloride	< 5.0		µg/kg wet	5.0						
Chlorobenzene	< 5.0		µg/kg wet	5.0						
Chloroethane	< 10.0		µg/kg wet	10.0						
Chloroform	< 5.0		µg/kg wet	5.0						
Chloromethane	< 10.0		µg/kg wet	10.0						
2-Chlorotoluene	< 5.0		µg/kg wet	5.0						
4-Chlorotoluene	< 5.0		µg/kg wet	5.0						
1,2-Dibromo-3-chloropropane	< 10.0		µg/kg wet	10.0						
Dibromochloromethane	< 5.0		µg/kg wet	5.0						
1,2-Dibromoethane (EDB)	< 5.0		µg/kg wet	5.0						
Dibromomethane	< 5.0		µg/kg wet	5.0						
1,2-Dichlorobenzene	< 5.0		µg/kg wet	5.0						
1,3-Dichlorobenzene	< 5.0		µg/kg wet	5.0						
1,4-Dichlorobenzene	< 5.0		µg/kg wet	5.0						
Dichlorodifluoromethane (Freon12)	< 10.0		µg/kg wet	10.0						
1,1-Dichloroethane	< 5.0		µg/kg wet	5.0						
1,2-Dichloroethane	< 5.0		µg/kg wet	5.0						
1,1-Dichloroethene	< 5.0		µg/kg wet	5.0						
cis-1,2-Dichloroethene	< 5.0		µg/kg wet	5.0						
trans-1,2-Dichloroethene	< 5.0		µg/kg wet	5.0						
1,2-Dichloropropane	< 5.0		µg/kg wet	5.0						
1,3-Dichloropropane	< 5.0		µg/kg wet	5.0						
2,2-Dichloropropane	< 5.0		µg/kg wet	5.0						
1,1-Dichloropropene	< 5.0		µg/kg wet	5.0						
cis-1,3-Dichloropropene	< 5.0		µg/kg wet	5.0						
trans-1,3-Dichloropropene	< 5.0		µg/kg wet	5.0						
Ethylbenzene	< 5.0		µg/kg wet	5.0						
Hexachlorobutadiene	< 5.0		µg/kg wet	5.0						
2-Hexanone (MBK)	< 50.0		µg/kg wet	50.0						
Isopropylbenzene	< 5.0		µg/kg wet	5.0						
4-Isopropyltoluene	< 5.0		µg/kg wet	5.0						
Methyl tert-butyl ether	< 5.0		µg/kg wet	5.0						
4-Methyl-2-pentanone (MIBK)	< 50.0		µg/kg wet	50.0						
Methylene chloride	< 10.0		µg/kg wet	10.0						
Naphthalene	< 5.0		µg/kg wet	5.0						
n-Propylbenzene	< 5.0		µg/kg wet	5.0						
Styrene	< 5.0		µg/kg wet	5.0						
1,1,1,2-Tetrachloroethane	< 5.0		µg/kg wet	5.0						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201366 - SW846 5035A Soil (low level)										
Blank (1201366-BLK1)					Prepared & Analyzed: 18-Jan-12					
1,1,2,2-Tetrachloroethane	< 5.0		µg/kg wet	5.0						
Tetrachloroethene	< 5.0		µg/kg wet	5.0						
Toluene	< 5.0		µg/kg wet	5.0						
1,2,3-Trichlorobenzene	< 5.0		µg/kg wet	5.0						
1,2,4-Trichlorobenzene	< 5.0		µg/kg wet	5.0						
1,3,5-Trichlorobenzene	< 5.0		µg/kg wet	5.0						
1,1,1-Trichloroethane	< 5.0		µg/kg wet	5.0						
1,1,2-Trichloroethane	< 5.0		µg/kg wet	5.0						
Trichloroethene	< 5.0		µg/kg wet	5.0						
Trichlorofluoromethane (Freon 11)	< 5.0		µg/kg wet	5.0						
1,2,3-Trichloropropane	< 5.0		µg/kg wet	5.0						
1,2,4-Trimethylbenzene	< 5.0		µg/kg wet	5.0						
1,3,5-Trimethylbenzene	< 5.0		µg/kg wet	5.0						
Vinyl chloride	< 5.0		µg/kg wet	5.0						
m,p-Xylene	< 10.0		µg/kg wet	10.0						
o-Xylene	< 5.0		µg/kg wet	5.0						
Tetrahydrofuran	< 10.0		µg/kg wet	10.0						
Ethyl ether	< 5.0		µg/kg wet	5.0						
Tert-amyl methyl ether	< 5.0		µg/kg wet	5.0						
Ethyl tert-butyl ether	< 5.0		µg/kg wet	5.0						
Di-isopropyl ether	< 5.0		µg/kg wet	5.0						
Tert-Butanol / butyl alcohol	< 50.0		µg/kg wet	50.0						
1,4-Dioxane	< 100		µg/kg wet	100						
trans-1,4-Dichloro-2-butene	< 25.0		µg/kg wet	25.0						
Ethanol	< 2000		µg/kg wet	2000						
Surrogate: 4-Bromofluorobenzene	*49.8*		µg/kg wet		*50.0*		*100*	*70-130*		
Surrogate: Toluene-d8	*50.8*		µg/kg wet		*50.0*		*102*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*61.2*		µg/kg wet		*50.0*		*122*	*70-130*		
Surrogate: Dibromofluoromethane	*53.6*		µg/kg wet		*50.0*		*107*	*70-130*		
LCS (1201366-BS1)					Prepared & Analyzed: 18-Jan-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**17.8**		µg/kg wet		20.0		89	70-130		
Acetone	**24.8**		µg/kg wet		20.0		124	70-130		
Acrylonitrile	**20.1**		µg/kg wet		20.0		100	70-130		
Benzene	**19.4**		µg/kg wet		20.0		97	70-130		
Bromobenzene	**19.1**		µg/kg wet		20.0		95	70-130		
Bromochloromethane	**19.7**		µg/kg wet		20.0		98	70-130		
Bromodichloromethane	**19.6**		µg/kg wet		20.0		98	70-130		
Bromoform	**19.5**		µg/kg wet		20.0		97	70-130		
Bromomethane	**18.2**		µg/kg wet		20.0		91	70-130		
2-Butanone (MEK)	**18.5**		µg/kg wet		20.0		92	70-130		
n-Butylbenzene	**17.5**		µg/kg wet		20.0		87	70-130		
sec-Butylbenzene	**19.0**		µg/kg wet		20.0		95	70-130		
tert-Butylbenzene	**19.3**		µg/kg wet		20.0		96	70-130		
Carbon disulfide	**17.9**		µg/kg wet		20.0		89	70-130		
Carbon tetrachloride	**18.8**		µg/kg wet		20.0		94	70-130		
Chlorobenzene	**18.7**		µg/kg wet		20.0		94	70-130		
Chloroethane	**19.2**		µg/kg wet		20.0		96	70-130		
Chloroform	**18.6**		µg/kg wet		20.0		93	70-130		
Chloromethane	**18.6**		µg/kg wet		20.0		93	70-130		
2-Chlorotoluene	**17.9**		µg/kg wet		20.0		90	70-130		
4-Chlorotoluene	**19.1**		µg/kg wet		20.0		95	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201366 - SW846 5035A Soil (low level)										
LCS (1201366-BS1)						Prepared & Analyzed: 18-Jan-12				
1,2-Dibromo-3-chloropropane	**21.5**		µg/kg wet		20.0		107	70-130		
Dibromochloromethane	**19.8**		µg/kg wet		20.0		99	70-130		
1,2-Dibromoethane (EDB)	**20.4**		µg/kg wet		20.0		102	70-130		
Dibromomethane	**20.2**		µg/kg wet		20.0		101	70-130		
1,2-Dichlorobenzene	**19.2**		µg/kg wet		20.0		96	70-130		
1,3-Dichlorobenzene	**18.6**		µg/kg wet		20.0		93	70-130		
1,4-Dichlorobenzene	**18.3**		µg/kg wet		20.0		92	70-130		
Dichlorodifluoromethane (Freon12)	**17.5**		µg/kg wet		20.0		87	70-130		
1,1-Dichloroethane	**19.4**		µg/kg wet		20.0		97	70-130		
1,2-Dichloroethane	**19.5**		µg/kg wet		20.0		98	70-130		
1,1-Dichloroethene	**19.1**		µg/kg wet		20.0		95	70-130		
cis-1,2-Dichloroethene	**19.4**		µg/kg wet		20.0		97	70-130		
trans-1,2-Dichloroethene	**18.8**		µg/kg wet		20.0		94	70-130		
1,2-Dichloropropane	**19.9**		µg/kg wet		20.0		100	70-130		
1,3-Dichloropropane	**20.2**		µg/kg wet		20.0		101	70-130		
2,2-Dichloropropane	**16.6**		µg/kg wet		20.0		83	70-130		
1,1-Dichloropropene	**19.0**		µg/kg wet		20.0		95	70-130		
cis-1,3-Dichloropropene	**19.2**		µg/kg wet		20.0		96	70-130		
trans-1,3-Dichloropropene	**19.0**		µg/kg wet		20.0		95	70-130		
Ethylbenzene	**19.1**		µg/kg wet		20.0		95	70-130		
Hexachlorobutadiene	**16.2**		µg/kg wet		20.0		81	70-130		
2-Hexanone (MBK)	**21.0**		µg/kg wet		20.0		105	70-130		
Isopropylbenzene	**18.7**		µg/kg wet		20.0		93	70-130		
4-Isopropyltoluene	**18.4**		µg/kg wet		20.0		92	70-130		
Methyl tert-butyl ether	**20.7**		µg/kg wet		20.0		103	70-130		
4-Methyl-2-pentanone (MIBK)	**26.1**		µg/kg wet		20.0		131	70-130		
Methylene chloride	**18.4**		µg/kg wet		20.0		92	70-130		
Naphthalene	**18.6**		µg/kg wet		20.0		93	70-130		
n-Propylbenzene	**18.9**		µg/kg wet		20.0		95	70-130		
Styrene	**19.8**		µg/kg wet		20.0		99	70-130		
1,1,1,2-Tetrachloroethane	**19.1**		µg/kg wet		20.0		95	70-130		
1,1,2,2-Tetrachloroethane	**20.8**		µg/kg wet		20.0		104	70-130		
Tetrachloroethene	**18.2**		µg/kg wet		20.0		91	70-130		
Toluene	**18.9**		µg/kg wet		20.0		94	70-130		
1,2,3-Trichlorobenzene	**18.6**		µg/kg wet		20.0		93	70-130		
1,2,4-Trichlorobenzene	**17.0**		µg/kg wet		20.0		85	70-130		
1,3,5-Trichlorobenzene	**18.1**		µg/kg wet		20.0		90	70-130		
1,1,1-Trichloroethane	**18.9**		µg/kg wet		20.0		95	70-130		
1,1,2-Trichloroethane	**20.5**		µg/kg wet		20.0		103	70-130		
Trichloroethene	**19.0**		µg/kg wet		20.0		95	70-130		
Trichlorofluoromethane (Freon 11)	**18.7**		µg/kg wet		20.0		94	70-130		
1,2,3-Trichloropropane	**21.1**		µg/kg wet		20.0		106	70-130		
1,2,4-Trimethylbenzene	**18.6**		µg/kg wet		20.0		93	70-130		
1,3,5-Trimethylbenzene	**19.2**		µg/kg wet		20.0		96	70-130		
Vinyl chloride	**19.6**		µg/kg wet		20.0		98	70-130		
m,p-Xylene	**38.7**		µg/kg wet		40.0		97	70-130		
o-Xylene	**19.4**		µg/kg wet		20.0		97	70-130		
Tetrahydrofuran	**22.3**		µg/kg wet		20.0		112	70-130		
Ethyl ether	**20.8**		µg/kg wet		20.0		104	70-130		
Tert-amyl methyl ether	**19.0**		µg/kg wet		20.0		95	70-130		
Ethyl tert-butyl ether	**20.5**		µg/kg wet		20.0		103	70-130		
Di-isopropyl ether	**20.4**		µg/kg wet		20.0		102	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201366 - SW846 5035A Soil (low level)										
LCS (1201366-BS1)						Prepared & Analyzed: 18-Jan-12				
Tert-Butanol / butyl alcohol	**222**		µg/kg wet		200		111	70-130		
1,4-Dioxane	**223**		µg/kg wet		200		111	70-130		
trans-1,4-Dichloro-2-butene	**18.3**		µg/kg wet		20.0		91	70-130		
Ethanol	**523**	QM9	µg/kg wet		400		131	70-130		
Surrogate: 4-Bromofluorobenzene	*51.8*		µg/kg wet		*50.0*		*104*	*70-130*		
Surrogate: Toluene-d8	*50.1*		µg/kg wet		*50.0*		*100*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*52.3*		µg/kg wet		*50.0*		*105*	*70-130*		
Surrogate: Dibromofluoromethane	*51.8*		µg/kg wet		*50.0*		*104*	*70-130*		
LCS Dup (1201366-BSD1)						Prepared & Analyzed: 18-Jan-12				
1,1,2-Trichlorotrifluoroethane (Freon 113)	**18.1**		µg/kg wet		20.0		90	70-130	1	25
Acetone	**23.9**		µg/kg wet		20.0		119	70-130	4	50
Acrylonitrile	**19.4**		µg/kg wet		20.0		97	70-130	3	25
Benzene	**19.7**		µg/kg wet		20.0		98	70-130	2	25
Bromobenzene	**19.1**		µg/kg wet		20.0		95	70-130	0.1	25
Bromochloromethane	**19.6**		µg/kg wet		20.0		98	70-130	0.4	25
Bromodichloromethane	**19.8**		µg/kg wet		20.0		99	70-130	1	25
Bromoform	**18.7**		µg/kg wet		20.0		93	70-130	4	25
Bromomethane	**18.1**		µg/kg wet		20.0		90	70-130	0.6	50
2-Butanone (MEK)	**17.2**		µg/kg wet		20.0		86	70-130	8	50
n-Butylbenzene	**17.4**		µg/kg wet		20.0		87	70-130	0.7	25
sec-Butylbenzene	**18.5**		µg/kg wet		20.0		93	70-130	3	25
tert-Butylbenzene	**19.1**		µg/kg wet		20.0		95	70-130	1	25
Carbon disulfide	**18.2**		µg/kg wet		20.0		91	70-130	2	25
Carbon tetrachloride	**19.2**		µg/kg wet		20.0		96	70-130	2	25
Chlorobenzene	**18.7**		µg/kg wet		20.0		94	70-130	0	25
Chloroethane	**19.5**		µg/kg wet		20.0		98	70-130	2	50
Chloroform	**18.6**		µg/kg wet		20.0		93	70-130	0.05	25
Chloromethane	**18.1**		µg/kg wet		20.0		91	70-130	3	25
2-Chlorotoluene	**18.1**		µg/kg wet		20.0		90	70-130	1	25
4-Chlorotoluene	**18.7**		µg/kg wet		20.0		94	70-130	2	25
1,2-Dibromo-3-chloropropane	**20.0**		µg/kg wet		20.0		100	70-130	7	25
Dibromochloromethane	**19.4**		µg/kg wet		20.0		97	70-130	2	50
1,2-Dibromoethane (EDB)	**20.2**		µg/kg wet		20.0		101	70-130	0.8	25
Dibromomethane	**20.0**		µg/kg wet		20.0		100	70-130	1	25
1,2-Dichlorobenzene	**18.8**		µg/kg wet		20.0		94	70-130	2	25
1,3-Dichlorobenzene	**18.1**		µg/kg wet		20.0		91	70-130	3	25
1,4-Dichlorobenzene	**18.1**		µg/kg wet		20.0		90	70-130	1	25
Dichlorodifluoromethane (Freon12)	**17.4**		µg/kg wet		20.0		87	70-130	0.6	50
1,1-Dichloroethane	**19.6**		µg/kg wet		20.0		98	70-130	1	25
1,2-Dichloroethane	**19.4**		µg/kg wet		20.0		97	70-130	0.5	25
1,1-Dichloroethene	**19.1**		µg/kg wet		20.0		96	70-130	0.2	25
cis-1,2-Dichloroethene	**19.4**		µg/kg wet		20.0		97	70-130	0.4	25
trans-1,2-Dichloroethene	**19.0**		µg/kg wet		20.0		95	70-130	0.6	25
1,2-Dichloropropane	**20.0**		µg/kg wet		20.0		100	70-130	0.5	25
1,3-Dichloropropane	**19.7**		µg/kg wet		20.0		99	70-130	2	25
2,2-Dichloropropane	**16.8**		µg/kg wet		20.0		84	70-130	1	25
1,1-Dichloropropene	**19.1**		µg/kg wet		20.0		95	70-130	0.2	25
cis-1,3-Dichloropropene	**19.1**		µg/kg wet		20.0		95	70-130	0.6	25
trans-1,3-Dichloropropene	**18.9**		µg/kg wet		20.0		95	70-130	0.2	25
Ethylbenzene	**19.4**		µg/kg wet		20.0		97	70-130	2	25
Hexachlorobutadiene	**16.2**		µg/kg wet		20.0		81	70-130	0.2	50

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201366 - SW846 5035A Soil (low level)										
LCS Dup (1201366-BSD1)					Prepared & Analyzed: 18-Jan-12					
2-Hexanone (MBK)	**19.2**		µg/kg wet		20.0		96	70-130	9	25
Isopropylbenzene	**18.8**		µg/kg wet		20.0		94	70-130	0.7	25
4-Isopropyltoluene	**18.5**		µg/kg wet		20.0		92	70-130	0.5	25
Methyl tert-butyl ether	**20.3**		µg/kg wet		20.0		102	70-130	2	25
4-Methyl-2-pentanone (MIBK)	**26.8**		µg/kg wet		20.0		134	70-130	2	50
Methylene chloride	**16.2**		µg/kg wet		20.0		81	70-130	13	25
Naphthalene	**17.7**		µg/kg wet		20.0		88	70-130	5	25
n-Propylbenzene	**18.8**		µg/kg wet		20.0		94	70-130	0.8	25
Styrene	**19.6**		µg/kg wet		20.0		98	70-130	1	25
1,1,1,2-Tetrachloroethane	**19.0**		µg/kg wet		20.0		95	70-130	0.4	25
1,1,2,2-Tetrachloroethane	**19.2**		µg/kg wet		20.0		96	70-130	8	25
Tetrachloroethene	**18.2**		µg/kg wet		20.0		91	70-130	0.05	25
Toluene	**19.3**		µg/kg wet		20.0		97	70-130	2	25
1,2,3-Trichlorobenzene	**18.3**		µg/kg wet		20.0		91	70-130	2	25
1,2,4-Trichlorobenzene	**16.6**		µg/kg wet		20.0		83	70-130	2	25
1,3,5-Trichlorobenzene	**17.8**		µg/kg wet		20.0		89	70-130	1	25
1,1,1-Trichloroethane	**19.1**		µg/kg wet		20.0		95	70-130	0.7	25
1,1,2-Trichloroethane	**20.4**		µg/kg wet		20.0		102	70-130	0.9	25
Trichloroethene	**18.9**		µg/kg wet		20.0		95	70-130	0.4	25
Trichlorofluoromethane (Freon 11)	**18.9**		µg/kg wet		20.0		94	70-130	0.8	50
1,2,3-Trichloropropane	**20.2**		µg/kg wet		20.0		101	70-130	4	25
1,2,4-Trimethylbenzene	**18.1**		µg/kg wet		20.0		91	70-130	3	25
1,3,5-Trimethylbenzene	**18.7**		µg/kg wet		20.0		93	70-130	3	25
Vinyl chloride	**19.8**		µg/kg wet		20.0		99	70-130	0.8	25
m,p-Xylene	**39.3**		µg/kg wet		40.0		98	70-130	2	25
o-Xylene	**19.7**		µg/kg wet		20.0		99	70-130	2	25
Tetrahydrofuran	**21.1**		µg/kg wet		20.0		106	70-130	6	25
Ethyl ether	**20.4**		µg/kg wet		20.0		102	70-130	2	50
Tert-amyl methyl ether	**19.0**		µg/kg wet		20.0		95	70-130	0	25
Ethyl tert-butyl ether	**20.7**		µg/kg wet		20.0		103	70-130	0.8	25
Di-isopropyl ether	**20.4**		µg/kg wet		20.0		102	70-130	0.1	25
Tert-Butanol / butyl alcohol	**207**		µg/kg wet		200		104	70-130	7	25
1,4-Dioxane	**205**		µg/kg wet		200		102	70-130	8	25
trans-1,4-Dichloro-2-butene	**16.4**		µg/kg wet		20.0		82	70-130	11	25
Ethanol	**490**		µg/kg wet		400		123	70-130	6	30
Surrogate: 4-Bromofluorobenzene	*51.6*		µg/kg wet		*50.0*		*103*	*70-130*		
Surrogate: Toluene-d8	*50.5*		µg/kg wet		*50.0*		*101*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*51.4*		µg/kg wet		*50.0*		*103*	*70-130*		
Surrogate: Dibromofluoromethane	*51.2*		µg/kg wet		*50.0*		*102*	*70-130*		
Batch 1201627 - SW846 5030 Soil (high level)										
Blank (1201627-BLK1)					Prepared & Analyzed: 20-Jan-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 50.0		µg/kg wet	50.0						
Acetone	< 500		µg/kg wet	500						
Acrylonitrile	< 50.0		µg/kg wet	50.0						
Benzene	< 50.0		µg/kg wet	50.0						
Bromobenzene	< 50.0		µg/kg wet	50.0						
Bromochloromethane	< 50.0		µg/kg wet	50.0						
Bromodichloromethane	< 50.0		µg/kg wet	50.0						
Bromoform	< 50.0		µg/kg wet	50.0						
Bromomethane	< 100		µg/kg wet	100						
2-Butanone (MEK)	< 500		µg/kg wet	500						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201627 - SW846 5030 Soil (high level)										
Blank (1201627-BLK1)					Prepared & Analyzed: 20-Jan-12					
n-Butylbenzene	< 50.0		µg/kg wet	50.0						
sec-Butylbenzene	< 50.0		µg/kg wet	50.0						
tert-Butylbenzene	< 50.0		µg/kg wet	50.0						
Carbon disulfide	< 100		µg/kg wet	100						
Carbon tetrachloride	< 50.0		µg/kg wet	50.0						
Chlorobenzene	< 50.0		µg/kg wet	50.0						
Chloroethane	< 100		µg/kg wet	100						
Chloroform	< 50.0		µg/kg wet	50.0						
Chloromethane	< 100		µg/kg wet	100						
2-Chlorotoluene	< 50.0		µg/kg wet	50.0						
4-Chlorotoluene	< 50.0		µg/kg wet	50.0						
1,2-Dibromo-3-chloropropane	< 100		µg/kg wet	100						
Dibromochloromethane	< 50.0		µg/kg wet	50.0						
1,2-Dibromoethane (EDB)	< 50.0		µg/kg wet	50.0						
Dibromomethane	< 50.0		µg/kg wet	50.0						
1,2-Dichlorobenzene	< 50.0		µg/kg wet	50.0						
1,3-Dichlorobenzene	< 50.0		µg/kg wet	50.0						
1,4-Dichlorobenzene	< 50.0		µg/kg wet	50.0						
Dichlorodifluoromethane (Freon12)	< 100		µg/kg wet	100						
1,1-Dichloroethane	< 50.0		µg/kg wet	50.0						
1,2-Dichloroethane	< 50.0		µg/kg wet	50.0						
1,1-Dichloroethene	< 50.0		µg/kg wet	50.0						
cis-1,2-Dichloroethene	< 50.0		µg/kg wet	50.0						
trans-1,2-Dichloroethene	< 50.0		µg/kg wet	50.0						
1,2-Dichloropropane	< 50.0		µg/kg wet	50.0						
1,3-Dichloropropane	< 50.0		µg/kg wet	50.0						
2,2-Dichloropropane	< 50.0		µg/kg wet	50.0						
1,1-Dichloropropene	< 50.0		µg/kg wet	50.0						
cis-1,3-Dichloropropene	< 50.0		µg/kg wet	50.0						
trans-1,3-Dichloropropene	< 50.0		µg/kg wet	50.0						
Ethylbenzene	< 50.0		µg/kg wet	50.0						
Hexachlorobutadiene	< 50.0		µg/kg wet	50.0						
2-Hexanone (MBK)	< 500		µg/kg wet	500						
Isopropylbenzene	< 50.0		µg/kg wet	50.0						
4-Isopropyltoluene	< 50.0		µg/kg wet	50.0						
Methyl tert-butyl ether	< 50.0		µg/kg wet	50.0						
4-Methyl-2-pentanone (MIBK)	< 500		µg/kg wet	500						
Methylene chloride	< 100		µg/kg wet	100						
Naphthalene	< 50.0		µg/kg wet	50.0						
n-Propylbenzene	< 50.0		µg/kg wet	50.0						
Styrene	< 50.0		µg/kg wet	50.0						
1,1,1,2-Tetrachloroethane	< 50.0		µg/kg wet	50.0						
1,1,2,2-Tetrachloroethane	< 50.0		µg/kg wet	50.0						
Tetrachloroethene	< 50.0		µg/kg wet	50.0						
Toluene	< 50.0		µg/kg wet	50.0						
1,2,3-Trichlorobenzene	< 50.0		µg/kg wet	50.0						
1,2,4-Trichlorobenzene	< 50.0		µg/kg wet	50.0						
1,3,5-Trichlorobenzene	< 50.0		µg/kg wet	50.0						
1,1,1-Trichloroethane	< 50.0		µg/kg wet	50.0						
1,1,2-Trichloroethane	< 50.0		µg/kg wet	50.0						
Trichloroethene	< 50.0		µg/kg wet	50.0						
Trichlorofluoromethane (Freon 11)	< 50.0		µg/kg wet	50.0						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201627 - SW846 5030 Soil (high level)										
Blank (1201627-BLK1)					Prepared & Analyzed: 20-Jan-12					
1,2,3-Trichloropropane	< 50.0		µg/kg wet	50.0						
1,2,4-Trimethylbenzene	< 50.0		µg/kg wet	50.0						
1,3,5-Trimethylbenzene	< 50.0		µg/kg wet	50.0						
Vinyl chloride	< 50.0		µg/kg wet	50.0						
m,p-Xylene	< 100		µg/kg wet	100						
o-Xylene	< 50.0		µg/kg wet	50.0						
Tetrahydrofuran	< 100		µg/kg wet	100						
Ethyl ether	< 50.0		µg/kg wet	50.0						
Tert-amyl methyl ether	< 50.0		µg/kg wet	50.0						
Ethyl tert-butyl ether	< 50.0		µg/kg wet	50.0						
Di-isopropyl ether	< 50.0		µg/kg wet	50.0						
Tert-Butanol / butyl alcohol	< 500		µg/kg wet	500						
1,4-Dioxane	< 1000		µg/kg wet	1000						
trans-1,4-Dichloro-2-butene	< 250		µg/kg wet	250						
Ethanol	< 20000		µg/kg wet	20000						
Surrogate: 4-Bromofluorobenzene	*29.4*		µg/kg wet		*30.0*		*98*	*70-130*		
Surrogate: Toluene-d8	*29.4*		µg/kg wet		*30.0*		*98*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*32.6*		µg/kg wet		*30.0*		*109*	*70-130*		
Surrogate: Dibromofluoromethane	*28.5*		µg/kg wet		*30.0*		*95*	*70-130*		
LCS (1201627-BS1)					Prepared & Analyzed: 20-Jan-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**21.4**		µg/kg wet		20.0		107	70-130		
Acetone	**19.0**		µg/kg wet		20.0		95	70-130		
Acrylonitrile	**17.9**		µg/kg wet		20.0		89	70-130		
Benzene	**20.7**		µg/kg wet		20.0		103	70-130		
Bromobenzene	**20.9**		µg/kg wet		20.0		104	70-130		
Bromochloromethane	**20.6**		µg/kg wet		20.0		103	70-130		
Bromodichloromethane	**20.5**		µg/kg wet		20.0		102	70-130		
Bromoform	**19.0**		µg/kg wet		20.0		95	70-130		
Bromomethane	**21.5**		µg/kg wet		20.0		108	70-130		
2-Butanone (MEK)	**18.4**		µg/kg wet		20.0		92	70-130		
n-Butylbenzene	**21.9**		µg/kg wet		20.0		109	70-130		
sec-Butylbenzene	**22.1**		µg/kg wet		20.0		111	70-130		
tert-Butylbenzene	**21.8**		µg/kg wet		20.0		109	70-130		
Carbon disulfide	**19.8**		µg/kg wet		20.0		99	70-130		
Carbon tetrachloride	**20.3**		µg/kg wet		20.0		102	70-130		
Chlorobenzene	**21.0**		µg/kg wet		20.0		105	70-130		
Chloroethane	**20.8**		µg/kg wet		20.0		104	70-130		
Chloroform	**19.8**		µg/kg wet		20.0		99	70-130		
Chloromethane	**21.0**		µg/kg wet		20.0		105	70-130		
2-Chlorotoluene	**21.5**		µg/kg wet		20.0		107	70-130		
4-Chlorotoluene	**21.2**		µg/kg wet		20.0		106	70-130		
1,2-Dibromo-3-chloropropane	**19.6**		µg/kg wet		20.0		98	70-130		
Dibromochloromethane	**20.3**		µg/kg wet		20.0		101	70-130		
1,2-Dibromoethane (EDB)	**21.5**		µg/kg wet		20.0		107	70-130		
Dibromomethane	**20.6**		µg/kg wet		20.0		103	70-130		
1,2-Dichlorobenzene	**21.9**		µg/kg wet		20.0		110	70-130		
1,3-Dichlorobenzene	**21.0**		µg/kg wet		20.0		105	70-130		
1,4-Dichlorobenzene	**21.4**		µg/kg wet		20.0		107	70-130		
Dichlorodifluoromethane (Freon12)	**19.4**		µg/kg wet		20.0		97	70-130		
1,1-Dichloroethane	**20.2**		µg/kg wet		20.0		101	70-130		
1,2-Dichloroethane	**22.1**		µg/kg wet		20.0		111	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201627 - SW846 5030 Soil (high level)										
LCS (1201627-BS1)						Prepared & Analyzed: 20-Jan-12				
1,1-Dichloroethene	**20.4**		µg/kg wet		20.0		102	70-130		
cis-1,2-Dichloroethene	**20.2**		µg/kg wet		20.0		101	70-130		
trans-1,2-Dichloroethene	**20.9**		µg/kg wet		20.0		104	70-130		
1,2-Dichloropropane	**19.8**		µg/kg wet		20.0		99	70-130		
1,3-Dichloropropane	**20.2**		µg/kg wet		20.0		101	70-130		
2,2-Dichloropropane	**18.2**		µg/kg wet		20.0		91	70-130		
1,1-Dichloropropene	**21.0**		µg/kg wet		20.0		105	70-130		
cis-1,3-Dichloropropene	**19.1**		µg/kg wet		20.0		96	70-130		
trans-1,3-Dichloropropene	**18.8**		µg/kg wet		20.0		94	70-130		
Ethylbenzene	**21.7**		µg/kg wet		20.0		108	70-130		
Hexachlorobutadiene	**21.5**		µg/kg wet		20.0		108	70-130		
2-Hexanone (MBK)	**18.0**		µg/kg wet		20.0		90	70-130		
Isopropylbenzene	**21.2**		µg/kg wet		20.0		106	70-130		
4-Isopropyltoluene	**22.5**		µg/kg wet		20.0		112	70-130		
Methyl tert-butyl ether	**19.2**		µg/kg wet		20.0		96	70-130		
4-Methyl-2-pentanone (MIBK)	**16.4**		µg/kg wet		20.0		82	70-130		
Methylene chloride	**19.6**		µg/kg wet		20.0		98	70-130		
Naphthalene	**22.7**		µg/kg wet		20.0		114	70-130		
n-Propylbenzene	**21.9**		µg/kg wet		20.0		109	70-130		
Styrene	**22.0**		µg/kg wet		20.0		110	70-130		
1,1,1,2-Tetrachloroethane	**22.1**		µg/kg wet		20.0		111	70-130		
1,1,2,2-Tetrachloroethane	**21.0**		µg/kg wet		20.0		105	70-130		
Tetrachloroethene	**20.4**		µg/kg wet		20.0		102	70-130		
Toluene	**20.8**		µg/kg wet		20.0		104	70-130		
1,2,3-Trichlorobenzene	**22.7**		µg/kg wet		20.0		114	70-130		
1,2,4-Trichlorobenzene	**21.8**		µg/kg wet		20.0		109	70-130		
1,3,5-Trichlorobenzene	**21.9**		µg/kg wet		20.0		110	70-130		
1,1,1-Trichloroethane	**21.6**		µg/kg wet		20.0		108	70-130		
1,1,2-Trichloroethane	**20.0**		µg/kg wet		20.0		100	70-130		
Trichloroethene	**20.5**		µg/kg wet		20.0		103	70-130		
Trichlorofluoromethane (Freon 11)	**20.9**		µg/kg wet		20.0		104	70-130		
1,2,3-Trichloropropane	**20.4**		µg/kg wet		20.0		102	70-130		
1,2,4-Trimethylbenzene	**22.0**		µg/kg wet		20.0		110	70-130		
1,3,5-Trimethylbenzene	**21.8**		µg/kg wet		20.0		109	70-130		
Vinyl chloride	**21.0**		µg/kg wet		20.0		105	70-130		
m,p-Xylene	**43.8**		µg/kg wet		40.0		109	70-130		
o-Xylene	**21.7**		µg/kg wet		20.0		109	70-130		
Tetrahydrofuran	**18.1**		µg/kg wet		20.0		91	70-130		
Ethyl ether	**19.6**		µg/kg wet		20.0		98	70-130		
Tert-amyl methyl ether	**17.8**		µg/kg wet		20.0		89	70-130		
Ethyl tert-butyl ether	**19.1**		µg/kg wet		20.0		96	70-130		
Di-isopropyl ether	**19.4**		µg/kg wet		20.0		97	70-130		
Tert-Butanol / butyl alcohol	**169**		µg/kg wet		200		85	70-130		
1,4-Dioxane	**191**		µg/kg wet		200		95	70-130		
trans-1,4-Dichloro-2-butene	**18.4**		µg/kg wet		20.0		92	70-130		
Ethanol	**374**		µg/kg wet		400		93	70-130		
Surrogate: 4-Bromofluorobenzene	*28.5*		µg/kg wet		*30.0*		*95*	*70-130*		
Surrogate: Toluene-d8	*29.5*		µg/kg wet		*30.0*		*98*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*34.2*		µg/kg wet		*30.0*		*114*	*70-130*		
Surrogate: Dibromofluoromethane	*29.6*		µg/kg wet		*30.0*		*99*	*70-130*		
LCS Dup (1201627-BSD1)						Prepared & Analyzed: 20-Jan-12				

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201627 - SW846 5030 Soil (high level)										
LCS Dup (1201627-BSD1)					Prepared & Analyzed: 20-Jan-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**23.1**		µg/kg wet		20.0		115	70-130	7	25
Acetone	**21.0**		µg/kg wet		20.0		105	70-130	10	50
Acrylonitrile	**19.2**		µg/kg wet		20.0		96	70-130	7	25
Benzene	**21.8**		µg/kg wet		20.0		109	70-130	6	25
Bromobenzene	**22.6**		µg/kg wet		20.0		113	70-130	8	25
Bromochloromethane	**21.5**		µg/kg wet		20.0		107	70-130	4	25
Bromodichloromethane	**21.5**		µg/kg wet		20.0		107	70-130	5	25
Bromoform	**20.2**		µg/kg wet		20.0		101	70-130	6	25
Bromomethane	**23.6**		µg/kg wet		20.0		118	70-130	9	50
2-Butanone (MEK)	**20.4**		µg/kg wet		20.0		102	70-130	10	50
n-Butylbenzene	**23.9**		µg/kg wet		20.0		120	70-130	9	25
sec-Butylbenzene	**23.8**		µg/kg wet		20.0		119	70-130	7	25
tert-Butylbenzene	**23.7**		µg/kg wet		20.0		119	70-130	8	25
Carbon disulfide	**21.4**		µg/kg wet		20.0		107	70-130	7	25
Carbon tetrachloride	**21.6**		µg/kg wet		20.0		108	70-130	6	25
Chlorobenzene	**23.0**		µg/kg wet		20.0		115	70-130	9	25
Chloroethane	**21.8**		µg/kg wet		20.0		109	70-130	5	50
Chloroform	**21.2**		µg/kg wet		20.0		106	70-130	7	25
Chloromethane	**26.6**	QM9	µg/kg wet		20.0		133	70-130	23	25
2-Chlorotoluene	**23.2**		µg/kg wet		20.0		116	70-130	8	25
4-Chlorotoluene	**22.9**		µg/kg wet		20.0		114	70-130	7	25
1,2-Dibromo-3-chloropropane	**20.8**		µg/kg wet		20.0		104	70-130	6	25
Dibromochloromethane	**20.8**		µg/kg wet		20.0		104	70-130	2	50
1,2-Dibromoethane (EDB)	**22.8**		µg/kg wet		20.0		114	70-130	6	25
Dibromomethane	**22.1**		µg/kg wet		20.0		110	70-130	7	25
1,2-Dichlorobenzene	**23.6**		µg/kg wet		20.0		118	70-130	8	25
1,3-Dichlorobenzene	**22.6**		µg/kg wet		20.0		113	70-130	7	25
1,4-Dichlorobenzene	**23.2**		µg/kg wet		20.0		116	70-130	8	25
Dichlorodifluoromethane (Freon12)	**21.2**		µg/kg wet		20.0		106	70-130	8	50
1,1-Dichloroethane	**21.5**		µg/kg wet		20.0		108	70-130	6	25
1,2-Dichloroethane	**23.4**		µg/kg wet		20.0		117	70-130	6	25
1,1-Dichloroethene	**21.7**		µg/kg wet		20.0		109	70-130	6	25
cis-1,2-Dichloroethene	**22.0**		µg/kg wet		20.0		110	70-130	8	25
trans-1,2-Dichloroethene	**22.5**		µg/kg wet		20.0		112	70-130	7	25
1,2-Dichloropropane	**21.4**		µg/kg wet		20.0		107	70-130	8	25
1,3-Dichloropropane	**21.1**		µg/kg wet		20.0		106	70-130	4	25
2,2-Dichloropropane	**19.0**		µg/kg wet		20.0		95	70-130	4	25
1,1-Dichloropropene	**22.3**		µg/kg wet		20.0		112	70-130	6	25
cis-1,3-Dichloropropene	**20.4**		µg/kg wet		20.0		102	70-130	6	25
trans-1,3-Dichloropropene	**19.6**		µg/kg wet		20.0		98	70-130	5	25
Ethylbenzene	**23.6**		µg/kg wet		20.0		118	70-130	9	25
Hexachlorobutadiene	**23.2**		µg/kg wet		20.0		116	70-130	8	50
2-Hexanone (MBK)	**19.9**		µg/kg wet		20.0		100	70-130	10	25
Isopropylbenzene	**23.1**		µg/kg wet		20.0		115	70-130	9	25
4-Isopropyltoluene	**24.7**		µg/kg wet		20.0		124	70-130	9	25
Methyl tert-butyl ether	**20.3**		µg/kg wet		20.0		101	70-130	5	25
4-Methyl-2-pentanone (MIBK)	**18.9**		µg/kg wet		20.0		95	70-130	14	50
Methylene chloride	**21.1**		µg/kg wet		20.0		105	70-130	7	25
Naphthalene	**24.2**		µg/kg wet		20.0		121	70-130	6	25
n-Propylbenzene	**23.8**		µg/kg wet		20.0		119	70-130	9	25
Styrene	**23.4**		µg/kg wet		20.0		117	70-130	6	25
1,1,1,2-Tetrachloroethane	**23.5**		µg/kg wet		20.0		117	70-130	6	25

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201627 - SW846 5030 Soil (high level)										
LCS Dup (1201627-BSD1)					Prepared & Analyzed: 20-Jan-12					
1,1,2,2-Tetrachloroethane	**22.7**		µg/kg wet		20.0		113	70-130	7	25
Tetrachloroethene	**21.4**		µg/kg wet		20.0		107	70-130	5	25
Toluene	**22.2**		µg/kg wet		20.0		111	70-130	6	25
1,2,3-Trichlorobenzene	**23.9**		µg/kg wet		20.0		120	70-130	5	25
1,2,4-Trichlorobenzene	**23.4**		µg/kg wet		20.0		117	70-130	7	25
1,3,5-Trichlorobenzene	**23.3**		µg/kg wet		20.0		117	70-130	6	25
1,1,1-Trichloroethane	**23.2**		µg/kg wet		20.0		116	70-130	7	25
1,1,2-Trichloroethane	**21.5**		µg/kg wet		20.0		107	70-130	7	25
Trichloroethene	**22.4**		µg/kg wet		20.0		112	70-130	9	25
Trichlorofluoromethane (Freon 11)	**22.4**		µg/kg wet		20.0		112	70-130	7	50
1,2,3-Trichloropropane	**22.6**		µg/kg wet		20.0		113	70-130	10	25
1,2,4-Trimethylbenzene	**23.4**		µg/kg wet		20.0		117	70-130	6	25
1,3,5-Trimethylbenzene	**23.2**		µg/kg wet		20.0		116	70-130	6	25
Vinyl chloride	**22.9**		µg/kg wet		20.0		114	70-130	9	25
m,p-Xylene	**47.3**		µg/kg wet		40.0		118	70-130	8	25
o-Xylene	**23.3**		µg/kg wet		20.0		117	70-130	7	25
Tetrahydrofuran	**18.6**		µg/kg wet		20.0		93	70-130	3	25
Ethyl ether	**20.2**		µg/kg wet		20.0		101	70-130	3	50
Tert-amyl methyl ether	**18.8**		µg/kg wet		20.0		94	70-130	6	25
Ethyl tert-butyl ether	**20.2**		µg/kg wet		20.0		101	70-130	5	25
Di-isopropyl ether	**20.7**		µg/kg wet		20.0		104	70-130	6	25
Tert-Butanol / butyl alcohol	**188**		µg/kg wet		200		94	70-130	11	25
1,4-Dioxane	**201**		µg/kg wet		200		101	70-130	6	25
trans-1,4-Dichloro-2-butene	**19.6**		µg/kg wet		20.0		98	70-130	6	25
Ethanol	**402**		µg/kg wet		400		100	70-130	7	30
Surrogate: 4-Bromofluorobenzene	*29.1*		µg/kg wet		*30.0*		*97*	*70-130*		
Surrogate: Toluene-d8	*29.6*		µg/kg wet		*30.0*		*99*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*34.1*		µg/kg wet		*30.0*		*114*	*70-130*		
Surrogate: Dibromofluoromethane	*29.8*		µg/kg wet		*30.0*		*99*	*70-130*		
Matrix Spike (1201627-MS1)			**Source: SB42546-12**		Prepared & Analyzed: 20-Jan-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**21.3**		µg/kg dry		20.0	BRL	107	70-130		
Acetone	**19.5**		µg/kg dry		20.0	BRL	98	70-130		
Acrylonitrile	**17.9**		µg/kg dry		20.0	BRL	90	70-130		
Benzene	**22.4**		µg/kg dry		20.0	BRL	112	70-130		
Bromobenzene	**23.4**		µg/kg dry		20.0	BRL	117	70-130		
Bromochloromethane	**21.3**		µg/kg dry		20.0	BRL	106	70-130		
Bromodichloromethane	**20.1**		µg/kg dry		20.0	BRL	100	70-130		
Bromoform	**18.1**		µg/kg dry		20.0	BRL	91	70-130		
Bromomethane	**20.3**		µg/kg dry		20.0	BRL	101	70-130		
2-Butanone (MEK)	**9.7**	QM7	µg/kg dry		20.0	BRL	48	70-130		
n-Butylbenzene	**24.9**		µg/kg dry		20.0	BRL	125	70-130		
sec-Butylbenzene	**24.2**		µg/kg dry		20.0	BRL	121	70-130		
tert-Butylbenzene	**23.9**		µg/kg dry		20.0	BRL	119	70-130		
Carbon disulfide	**15.0**		µg/kg dry		20.0	BRL	75	70-130		
Carbon tetrachloride	**19.1**		µg/kg dry		20.0	BRL	96	70-130		
Chlorobenzene	**23.1**		µg/kg dry		20.0	BRL	116	70-130		
Chloroethane	**21.6**		µg/kg dry		20.0	BRL	108	70-130		
Chloroform	**21.0**		µg/kg dry		20.0	BRL	105	70-130		
Chloromethane	**25.1**		µg/kg dry		20.0	BRL	125	70-130		
2-Chlorotoluene	**24.1**		µg/kg dry		20.0	BRL	120	70-130		
4-Chlorotoluene	**23.2**		µg/kg dry		20.0	BRL	116	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201627 - SW846 5030 Soil (high level)										
Matrix Spike (1201627-MS1)			**Source: SB42546-12**		Prepared & Analyzed: 20-Jan-12					
1,2-Dibromo-3-chloropropane	**17.1**		µg/kg dry		20.0	BRL	85	70-130		
Dibromochloromethane	**19.7**		µg/kg dry		20.0	BRL	99	70-130		
1,2-Dibromoethane (EDB)	**22.9**		µg/kg dry		20.0	BRL	115	70-130		
Dibromomethane	**21.6**		µg/kg dry		20.0	BRL	108	70-130		
1,2-Dichlorobenzene	**23.2**		µg/kg dry		20.0	BRL	116	70-130		
1,3-Dichlorobenzene	**23.1**		µg/kg dry		20.0	BRL	115	70-130		
1,4-Dichlorobenzene	**23.5**		µg/kg dry		20.0	BRL	117	70-130		
Dichlorodifluoromethane (Freon12)	**21.3**		µg/kg dry		20.0	BRL	106	70-130		
1,1-Dichloroethane	**21.5**		µg/kg dry		20.0	BRL	108	70-130		
1,2-Dichloroethane	**23.4**		µg/kg dry		20.0	BRL	117	70-130		
1,1-Dichloroethene	**20.8**		µg/kg dry		20.0	BRL	104	70-130		
cis-1,2-Dichloroethene	**85.8**		µg/kg dry		20.0	70.6	76	70-130		
trans-1,2-Dichloroethene	**25.8**		µg/kg dry		20.0	4.3	107	70-130		
1,2-Dichloropropane	**21.4**		µg/kg dry		20.0	BRL	107	70-130		
1,3-Dichloropropane	**22.1**		µg/kg dry		20.0	BRL	111	70-130		
2,2-Dichloropropane	**17.9**		µg/kg dry		20.0	BRL	90	70-130		
1,1-Dichloropropene	**21.8**		µg/kg dry		20.0	BRL	109	70-130		
cis-1,3-Dichloropropene	**18.6**		µg/kg dry		20.0	BRL	93	70-130		
trans-1,3-Dichloropropene	**18.7**		µg/kg dry		20.0	BRL	94	70-130		
Ethylbenzene	**23.2**		µg/kg dry		20.0	BRL	116	70-130		
Hexachlorobutadiene	**22.7**		µg/kg dry		20.0	BRL	114	70-130		
2-Hexanone (MBK)	**17.6**		µg/kg dry		20.0	BRL	88	70-130		
Isopropylbenzene	**23.5**		µg/kg dry		20.0	BRL	117	70-130		
4-Isopropyltoluene	**24.8**		µg/kg dry		20.0	BRL	124	70-130		
Methyl tert-butyl ether	**19.8**		µg/kg dry		20.0	BRL	99	70-130		
4-Methyl-2-pentanone (MIBK)	**19.2**		µg/kg dry		20.0	BRL	96	70-130		
Methylene chloride	**21.5**		µg/kg dry		20.0	BRL	107	70-130		
Naphthalene	**21.9**		µg/kg dry		20.0	BRL	109	70-130		
n-Propylbenzene	**23.8**		µg/kg dry		20.0	BRL	119	70-130		
Styrene	**23.5**		µg/kg dry		20.0	BRL	117	70-130		
1,1,1,2-Tetrachloroethane	**22.6**		µg/kg dry		20.0	BRL	113	70-130		
1,1,2,2-Tetrachloroethane	**22.1**		µg/kg dry		20.0	BRL	111	70-130		
Tetrachloroethene	**23.8**		µg/kg dry		20.0	1.6	111	70-130		
Toluene	**22.4**		µg/kg dry		20.0	BRL	112	70-130		
1,2,3-Trichlorobenzene	**22.0**		µg/kg dry		20.0	BRL	110	70-130		
1,2,4-Trichlorobenzene	**22.1**		µg/kg dry		20.0	BRL	111	70-130		
1,3,5-Trichlorobenzene	**23.3**		µg/kg dry		20.0	BRL	116	70-130		
1,1,1-Trichloroethane	**21.1**		µg/kg dry		20.0	BRL	105	70-130		
1,1,2-Trichloroethane	**22.7**		µg/kg dry		20.0	BRL	114	70-130		
Trichloroethene	**480**	QM4X	µg/kg dry		20.0	517	-182	70-130		
Trichlorofluoromethane (Freon 11)	**20.2**		µg/kg dry		20.0	BRL	101	70-130		
1,2,3-Trichloropropane	**22.6**		µg/kg dry		20.0	BRL	113	70-130		
1,2,4-Trimethylbenzene	**23.8**		µg/kg dry		20.0	BRL	119	70-130		
1,3,5-Trimethylbenzene	**24.0**		µg/kg dry		20.0	BRL	120	70-130		
Vinyl chloride	**19.3**		µg/kg dry		20.0	BRL	96	70-130		
m,p-Xylene	**47.6**		µg/kg dry		40.0	BRL	119	70-130		
o-Xylene	**23.6**		µg/kg dry		20.0	BRL	118	70-130		
Tetrahydrofuran	**17.6**		µg/kg dry		20.0	BRL	88	70-130		
Ethyl ether	**20.9**		µg/kg dry		20.0	BRL	104	70-130		
Tert-amyl methyl ether	**17.9**		µg/kg dry		20.0	BRL	89	70-130		
Ethyl tert-butyl ether	**20.2**		µg/kg dry		20.0	BRL	101	70-130		
Di-isopropyl ether	**20.4**		µg/kg dry		20.0	BRL	102	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201627 - SW846 5030 Soil (high level)										
Matrix Spike (1201627-MS1)			**Source: SB42546-12**			Prepared & Analyzed: 20-Jan-12				
Tert-Butanol / butyl alcohol	**193**		µg/kg dry		200	BRL	97	70-130		
1,4-Dioxane	**212**		µg/kg dry		200	BRL	106	70-130		
trans-1,4-Dichloro-2-butene	**19.4**		µg/kg dry		20.0	BRL	97	70-130		
Ethanol	**423**		µg/kg dry		400	BRL	106	70-130		
Surrogate: 4-Bromofluorobenzene	*29.7*		µg/kg dry		*30.0*		*99*	*70-130*		
Surrogate: Toluene-d8	*29.6*		µg/kg dry		*30.0*		*99*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*29.7*		µg/kg dry		*30.0*		*99*	*70-130*		
Surrogate: Dibromofluoromethane	*28.8*		µg/kg dry		*30.0*		*96*	*70-130*		
Matrix Spike Dup (1201627-MSD1)			**Source: SB42546-12**			Prepared & Analyzed: 20-Jan-12				
1,1,2-Trichlorotrifluoroethane (Freon 113)	**21.0**		µg/kg dry		20.0	BRL	105	70-130	1	30
Acetone	**19.3**		µg/kg dry		20.0	BRL	96	70-130	1	30
Acrylonitrile	**18.9**		µg/kg dry		20.0	BRL	95	70-130	5	30
Benzene	**21.4**		µg/kg dry		20.0	BRL	107	70-130	5	30
Bromobenzene	**22.2**		µg/kg dry		20.0	BRL	111	70-130	5	30
Bromochloromethane	**20.1**		µg/kg dry		20.0	BRL	101	70-130	6	30
Bromodichloromethane	**20.0**		µg/kg dry		20.0	BRL	100	70-130	0.05	30
Bromoform	**17.5**		µg/kg dry		20.0	BRL	87	70-130	4	30
Bromomethane	**21.5**		µg/kg dry		20.0	BRL	107	70-130	6	30
2-Butanone (MEK)	**17.1**	QR5	µg/kg dry		20.0	BRL	85	70-130	55	30
n-Butylbenzene	**23.5**		µg/kg dry		20.0	BRL	117	70-130	6	30
sec-Butylbenzene	**23.6**		µg/kg dry		20.0	BRL	118	70-130	3	30
tert-Butylbenzene	**23.0**		µg/kg dry		20.0	BRL	115	70-130	4	30
Carbon disulfide	**15.1**		µg/kg dry		20.0	BRL	76	70-130	0.5	30
Carbon tetrachloride	**19.3**		µg/kg dry		20.0	BRL	96	70-130	1	30
Chlorobenzene	**22.3**		µg/kg dry		20.0	BRL	111	70-130	4	30
Chloroethane	**20.8**		µg/kg dry		20.0	BRL	104	70-130	4	30
Chloroform	**20.1**		µg/kg dry		20.0	BRL	101	70-130	4	30
Chloromethane	**20.8**		µg/kg dry		20.0	BRL	104	70-130	19	30
2-Chlorotoluene	**21.9**		µg/kg dry		20.0	BRL	110	70-130	9	30
4-Chlorotoluene	**22.6**		µg/kg dry		20.0	BRL	113	70-130	3	30
1,2-Dibromo-3-chloropropane	**16.6**		µg/kg dry		20.0	BRL	83	70-130	3	30
Dibromochloromethane	**19.7**		µg/kg dry		20.0	BRL	98	70-130	0.1	30
1,2-Dibromoethane (EDB)	**22.5**		µg/kg dry		20.0	BRL	113	70-130	2	30
Dibromomethane	**21.6**		µg/kg dry		20.0	BRL	108	70-130	0.2	30
1,2-Dichlorobenzene	**22.0**		µg/kg dry		20.0	BRL	110	70-130	5	30
1,3-Dichlorobenzene	**22.1**		µg/kg dry		20.0	BRL	110	70-130	4	30
1,4-Dichlorobenzene	**22.2**		µg/kg dry		20.0	BRL	111	70-130	5	30
Dichlorodifluoromethane (Freon12)	**20.0**		µg/kg dry		20.0	BRL	100	70-130	6	30
1,1-Dichloroethane	**20.6**		µg/kg dry		20.0	BRL	103	70-130	4	30
1,2-Dichloroethane	**23.0**		µg/kg dry		20.0	BRL	115	70-130	1	30
1,1-Dichloroethene	**20.5**		µg/kg dry		20.0	BRL	102	70-130	2	30
cis-1,2-Dichloroethene	**84.1**	QM7	µg/kg dry		20.0	70.6	67	70-130	12	30
trans-1,2-Dichloroethene	**24.9**		µg/kg dry		20.0	4.3	103	70-130	4	30
1,2-Dichloropropane	**21.4**		µg/kg dry		20.0	BRL	107	70-130	0.3	30
1,3-Dichloropropane	**21.7**		µg/kg dry		20.0	BRL	109	70-130	2	30
2,2-Dichloropropane	**17.1**		µg/kg dry		20.0	BRL	85	70-130	5	30
1,1-Dichloropropene	**21.4**		µg/kg dry		20.0	BRL	107	70-130	2	30
cis-1,3-Dichloropropene	**18.6**		µg/kg dry		20.0	BRL	93	70-130	0.3	30
trans-1,3-Dichloropropene	**18.4**		µg/kg dry		20.0	BRL	92	70-130	2	30
Ethylbenzene	**22.6**		µg/kg dry		20.0	BRL	113	70-130	3	30
Hexachlorobutadiene	**23.2**		µg/kg dry		20.0	BRL	116	70-130	2	30

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201627 - SW846 5030 Soil (high level)										
Matrix Spike Dup (1201627-MSD1)			**Source: SB42546-12**		Prepared & Analyzed: 20-Jan-12					
2-Hexanone (MBK)	**18.7**		µg/kg dry		20.0	BRL	93	70-130	6	30
Isopropylbenzene	**22.7**		µg/kg dry		20.0	BRL	113	70-130	3	30
4-Isopropyltoluene	**23.6**		µg/kg dry		20.0	BRL	118	70-130	5	30
Methyl tert-butyl ether	**19.1**		µg/kg dry		20.0	BRL	96	70-130	4	30
4-Methyl-2-pentanone (MIBK)	**18.4**		µg/kg dry		20.0	BRL	92	70-130	5	30
Methylene chloride	**20.4**		µg/kg dry		20.0	BRL	102	70-130	5	30
Naphthalene	**21.7**		µg/kg dry		20.0	BRL	109	70-130	0.6	30
n-Propylbenzene	**23.1**		µg/kg dry		20.0	BRL	116	70-130	3	30
Styrene	**22.9**		µg/kg dry		20.0	BRL	115	70-130	2	30
1,1,1,2-Tetrachloroethane	**22.0**		µg/kg dry		20.0	BRL	110	70-130	3	30
1,1,2,2-Tetrachloroethane	**21.9**		µg/kg dry		20.0	BRL	109	70-130	1	30
Tetrachloroethene	**22.9**		µg/kg dry		20.0	1.6	107	70-130	4	30
Toluene	**21.7**		µg/kg dry		20.0	BRL	109	70-130	3	30
1,2,3-Trichlorobenzene	**21.7**		µg/kg dry		20.0	BRL	108	70-130	1	30
1,2,4-Trichlorobenzene	**21.7**		µg/kg dry		20.0	BRL	108	70-130	2	30
1,3,5-Trichlorobenzene	**22.1**		µg/kg dry		20.0	BRL	111	70-130	5	30
1,1,1-Trichloroethane	**20.9**		µg/kg dry		20.0	BRL	105	70-130	0.9	30
1,1,2-Trichloroethane	**22.4**		µg/kg dry		20.0	BRL	112	70-130	1	30
Trichloroethene	**484**	QM4X	µg/kg dry		20.0	517	-165	70-130	NR	30
Trichlorofluoromethane (Freon 11)	**19.8**		µg/kg dry		20.0	BRL	99	70-130	2	30
1,2,3-Trichloropropane	**22.3**		µg/kg dry		20.0	BRL	111	70-130	1	30
1,2,4-Trimethylbenzene	**22.8**		µg/kg dry		20.0	BRL	114	70-130	4	30
1,3,5-Trimethylbenzene	**23.2**		µg/kg dry		20.0	BRL	116	70-130	3	30
Vinyl chloride	**18.8**		µg/kg dry		20.0	BRL	94	70-130	3	30
m,p-Xylene	**46.0**		µg/kg dry		40.0	BRL	115	70-130	3	30
o-Xylene	**22.3**		µg/kg dry		20.0	BRL	112	70-130	6	30
Tetrahydrofuran	**18.4**		µg/kg dry		20.0	BRL	92	70-130	4	30
Ethyl ether	**19.9**		µg/kg dry		20.0	BRL	99	70-130	5	30
Tert-amyl methyl ether	**17.3**		µg/kg dry		20.0	BRL	86	70-130	3	30
Ethyl tert-butyl ether	**19.2**		µg/kg dry		20.0	BRL	96	70-130	5	30
Di-isopropyl ether	**19.5**		µg/kg dry		20.0	BRL	98	70-130	5	30
Tert-Butanol / butyl alcohol	**190**		µg/kg dry		200	BRL	95	70-130	2	30
1,4-Dioxane	**189**		µg/kg dry		200	BRL	94	70-130	11	30
trans-1,4-Dichloro-2-butene	**19.5**		µg/kg dry		20.0	BRL	97	70-130	0.4	30
Ethanol	**407**		µg/kg dry		400	BRL	102	70-130	4	30
Surrogate: 4-Bromofluorobenzene	*29.8*		µg/kg dry		*30.0*		*99*	*70-130*		
Surrogate: Toluene-d8	*29.5*		µg/kg dry		*30.0*		*98*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*34.3*		µg/kg dry		*30.0*		*114*	*70-130*		
Surrogate: Dibromofluoromethane	*28.8*		µg/kg dry		*30.0*		*96*	*70-130*		
Batch 1201751 - SW846 5030 Soil (high level)										
Blank (1201751-BLK1)					Prepared & Analyzed: 23-Jan-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 50.0		µg/kg wet	50.0						
Acetone	< 500		µg/kg wet	500						
Acrylonitrile	< 50.0		µg/kg wet	50.0						
Benzene	< 50.0		µg/kg wet	50.0						
Bromobenzene	< 50.0		µg/kg wet	50.0						
Bromochloromethane	< 50.0		µg/kg wet	50.0						
Bromodichloromethane	< 50.0		µg/kg wet	50.0						
Bromoform	< 50.0		µg/kg wet	50.0						
Bromomethane	< 100		µg/kg wet	100						
2-Butanone (MEK)	< 500		µg/kg wet	500						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201751 - SW846 5030 Soil (high level)										
Blank (1201751-BLK1)					Prepared & Analyzed: 23-Jan-12					
n-Butylbenzene	< 50.0		µg/kg wet	50.0						
sec-Butylbenzene	< 50.0		µg/kg wet	50.0						
tert-Butylbenzene	< 50.0		µg/kg wet	50.0						
Carbon disulfide	< 100		µg/kg wet	100						
Carbon tetrachloride	< 50.0		µg/kg wet	50.0						
Chlorobenzene	< 50.0		µg/kg wet	50.0						
Chloroethane	< 100		µg/kg wet	100						
Chloroform	< 50.0		µg/kg wet	50.0						
Chloromethane	< 100		µg/kg wet	100						
2-Chlorotoluene	< 50.0		µg/kg wet	50.0						
4-Chlorotoluene	< 50.0		µg/kg wet	50.0						
1,2-Dibromo-3-chloropropane	< 100		µg/kg wet	100						
Dibromochloromethane	< 50.0		µg/kg wet	50.0						
1,2-Dibromoethane (EDB)	< 50.0		µg/kg wet	50.0						
Dibromomethane	< 50.0		µg/kg wet	50.0						
1,2-Dichlorobenzene	< 50.0		µg/kg wet	50.0						
1,3-Dichlorobenzene	< 50.0		µg/kg wet	50.0						
1,4-Dichlorobenzene	< 50.0		µg/kg wet	50.0						
Dichlorodifluoromethane (Freon12)	< 100		µg/kg wet	100						
1,1-Dichloroethane	< 50.0		µg/kg wet	50.0						
1,2-Dichloroethane	< 50.0		µg/kg wet	50.0						
1,1-Dichloroethene	< 50.0		µg/kg wet	50.0						
cis-1,2-Dichloroethene	< 50.0		µg/kg wet	50.0						
trans-1,2-Dichloroethene	< 50.0		µg/kg wet	50.0						
1,2-Dichloropropane	< 50.0		µg/kg wet	50.0						
1,3-Dichloropropane	< 50.0		µg/kg wet	50.0						
2,2-Dichloropropane	< 50.0		µg/kg wet	50.0						
1,1-Dichloropropene	< 50.0		µg/kg wet	50.0						
cis-1,3-Dichloropropene	< 50.0		µg/kg wet	50.0						
trans-1,3-Dichloropropene	< 50.0		µg/kg wet	50.0						
Ethylbenzene	< 50.0		µg/kg wet	50.0						
Hexachlorobutadiene	< 50.0		µg/kg wet	50.0						
2-Hexanone (MBK)	< 500		µg/kg wet	500						
Isopropylbenzene	< 50.0		µg/kg wet	50.0						
4-Isopropyltoluene	< 50.0		µg/kg wet	50.0						
Methyl tert-butyl ether	< 50.0		µg/kg wet	50.0						
4-Methyl-2-pentanone (MIBK)	< 500		µg/kg wet	500						
Methylene chloride	< 100		µg/kg wet	100						
Naphthalene	< 50.0		µg/kg wet	50.0						
n-Propylbenzene	< 50.0		µg/kg wet	50.0						
Styrene	< 50.0		µg/kg wet	50.0						
1,1,1,2-Tetrachloroethane	< 50.0		µg/kg wet	50.0						
1,1,2,2-Tetrachloroethane	< 50.0		µg/kg wet	50.0						
Tetrachloroethene	< 50.0		µg/kg wet	50.0						
Toluene	< 50.0		µg/kg wet	50.0						
1,2,3-Trichlorobenzene	< 50.0		µg/kg wet	50.0						
1,2,4-Trichlorobenzene	< 50.0		µg/kg wet	50.0						
1,3,5-Trichlorobenzene	< 50.0		µg/kg wet	50.0						
1,1,1-Trichloroethane	< 50.0		µg/kg wet	50.0						
1,1,2-Trichloroethane	< 50.0		µg/kg wet	50.0						
Trichloroethene	< 50.0		µg/kg wet	50.0						
Trichlorofluoromethane (Freon 11)	< 50.0		µg/kg wet	50.0						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201751 - SW846 5030 Soil (high level)										
Blank (1201751-BLK1)					Prepared & Analyzed: 23-Jan-12					
1,2,3-Trichloropropane	< 50.0		µg/kg wet	50.0						
1,2,4-Trimethylbenzene	< 50.0		µg/kg wet	50.0						
1,3,5-Trimethylbenzene	< 50.0		µg/kg wet	50.0						
Vinyl chloride	< 50.0		µg/kg wet	50.0						
m,p-Xylene	< 100		µg/kg wet	100						
o-Xylene	< 50.0		µg/kg wet	50.0						
Tetrahydrofuran	< 100		µg/kg wet	100						
Ethyl ether	< 50.0		µg/kg wet	50.0						
Tert-amyl methyl ether	< 50.0		µg/kg wet	50.0						
Ethyl tert-butyl ether	< 50.0		µg/kg wet	50.0						
Di-isopropyl ether	< 50.0		µg/kg wet	50.0						
Tert-Butanol / butyl alcohol	< 500		µg/kg wet	500						
1,4-Dioxane	< 1000		µg/kg wet	1000						
trans-1,4-Dichloro-2-butene	< 250		µg/kg wet	250						
Ethanol	< 20000		µg/kg wet	20000						
Surrogate: 4-Bromofluorobenzene	*29.7*		µg/kg wet		*30.0*		*99*	*70-130*		
Surrogate: Toluene-d8	*29.1*		µg/kg wet		*30.0*		*97*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*34.0*		µg/kg wet		*30.0*		*114*	*70-130*		
Surrogate: Dibromofluoromethane	*29.8*		µg/kg wet		*30.0*		*99*	*70-130*		
LCS (1201751-BS1)					Prepared & Analyzed: 23-Jan-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**22.8**		µg/kg wet		20.0		114	70-130		
Acetone	**21.5**		µg/kg wet		20.0		107	70-130		
Acrylonitrile	**19.2**		µg/kg wet		20.0		96	70-130		
Benzene	**21.6**		µg/kg wet		20.0		108	70-130		
Bromobenzene	**22.0**		µg/kg wet		20.0		110	70-130		
Bromochloromethane	**21.7**		µg/kg wet		20.0		108	70-130		
Bromodichloromethane	**21.9**		µg/kg wet		20.0		110	70-130		
Bromoform	**21.3**		µg/kg wet		20.0		107	70-130		
Bromomethane	**22.8**		µg/kg wet		20.0		114	70-130		
2-Butanone (MEK)	**21.1**		µg/kg wet		20.0		106	70-130		
n-Butylbenzene	**23.1**		µg/kg wet		20.0		115	70-130		
sec-Butylbenzene	**23.1**		µg/kg wet		20.0		116	70-130		
tert-Butylbenzene	**23.1**		µg/kg wet		20.0		116	70-130		
Carbon disulfide	**22.2**		µg/kg wet		20.0		111	70-130		
Carbon tetrachloride	**22.4**		µg/kg wet		20.0		112	70-130		
Chlorobenzene	**21.8**		µg/kg wet		20.0		109	70-130		
Chloroethane	**21.3**		µg/kg wet		20.0		106	70-130		
Chloroform	**21.2**		µg/kg wet		20.0		106	70-130		
Chloromethane	**21.8**		µg/kg wet		20.0		109	70-130		
2-Chlorotoluene	**22.2**		µg/kg wet		20.0		111	70-130		
4-Chlorotoluene	**22.1**		µg/kg wet		20.0		110	70-130		
1,2-Dibromo-3-chloropropane	**22.3**		µg/kg wet		20.0		112	70-130		
Dibromochloromethane	**21.7**		µg/kg wet		20.0		109	70-130		
1,2-Dibromoethane (EDB)	**22.6**		µg/kg wet		20.0		113	70-130		
Dibromomethane	**22.0**		µg/kg wet		20.0		110	70-130		
1,2-Dichlorobenzene	**22.6**		µg/kg wet		20.0		113	70-130		
1,3-Dichlorobenzene	**22.4**		µg/kg wet		20.0		112	70-130		
1,4-Dichlorobenzene	**22.4**		µg/kg wet		20.0		112	70-130		
Dichlorodifluoromethane (Freon12)	**21.0**		µg/kg wet		20.0		105	70-130		
1,1-Dichloroethane	**21.3**		µg/kg wet		20.0		107	70-130		
1,2-Dichloroethane	**23.2**		µg/kg wet		20.0		116	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201751 - SW846 5030 Soil (high level)										
LCS (1201751-BS1)					Prepared & Analyzed: 23-Jan-12					
1,1-Dichloroethene	**22.2**		µg/kg wet		20.0		111	70-130		
cis-1,2-Dichloroethene	**21.8**		µg/kg wet		20.0		109	70-130		
trans-1,2-Dichloroethene	**22.3**		µg/kg wet		20.0		111	70-130		
1,2-Dichloropropane	**21.2**		µg/kg wet		20.0		106	70-130		
1,3-Dichloropropane	**21.1**		µg/kg wet		20.0		106	70-130		
2,2-Dichloropropane	**21.0**		µg/kg wet		20.0		105	70-130		
1,1-Dichloropropene	**22.1**		µg/kg wet		20.0		110	70-130		
cis-1,3-Dichloropropene	**21.3**		µg/kg wet		20.0		106	70-130		
trans-1,3-Dichloropropene	**21.2**		µg/kg wet		20.0		106	70-130		
Ethylbenzene	**22.5**		µg/kg wet		20.0		112	70-130		
Hexachlorobutadiene	**24.2**		µg/kg wet		20.0		121	70-130		
2-Hexanone (MBK)	**20.4**		µg/kg wet		20.0		102	70-130		
Isopropylbenzene	**22.1**		µg/kg wet		20.0		110	70-130		
4-Isopropyltoluene	**23.6**		µg/kg wet		20.0		118	70-130		
Methyl tert-butyl ether	**20.6**		µg/kg wet		20.0		103	70-130		
4-Methyl-2-pentanone (MIBK)	**19.8**		µg/kg wet		20.0		99	70-130		
Methylene chloride	**20.9**		µg/kg wet		20.0		104	70-130		
Naphthalene	**23.3**		µg/kg wet		20.0		117	70-130		
n-Propylbenzene	**23.0**		µg/kg wet		20.0		115	70-130		
Styrene	**21.9**		µg/kg wet		20.0		110	70-130		
1,1,1,2-Tetrachloroethane	**23.9**		µg/kg wet		20.0		120	70-130		
1,1,2,2-Tetrachloroethane	**22.2**		µg/kg wet		20.0		111	70-130		
Tetrachloroethene	**21.5**		µg/kg wet		20.0		107	70-130		
Toluene	**22.0**		µg/kg wet		20.0		110	70-130		
1,2,3-Trichlorobenzene	**24.1**		µg/kg wet		20.0		120	70-130		
1,2,4-Trichlorobenzene	**23.1**		µg/kg wet		20.0		116	70-130		
1,3,5-Trichlorobenzene	**22.9**		µg/kg wet		20.0		114	70-130		
1,1,1-Trichloroethane	**24.2**		µg/kg wet		20.0		121	70-130		
1,1,2-Trichloroethane	**21.2**		µg/kg wet		20.0		106	70-130		
Trichloroethene	**21.8**		µg/kg wet		20.0		109	70-130		
Trichlorofluoromethane (Freon 11)	**22.4**		µg/kg wet		20.0		112	70-130		
1,2,3-Trichloropropane	**21.6**		µg/kg wet		20.0		108	70-130		
1,2,4-Trimethylbenzene	**22.4**		µg/kg wet		20.0		112	70-130		
1,3,5-Trimethylbenzene	**22.4**		µg/kg wet		20.0		112	70-130		
Vinyl chloride	**22.8**		µg/kg wet		20.0		114	70-130		
m,p-Xylene	**45.1**		µg/kg wet		40.0		113	70-130		
o-Xylene	**22.3**		µg/kg wet		20.0		112	70-130		
Tetrahydrofuran	**17.9**		µg/kg wet		20.0		90	70-130		
Ethyl ether	**20.9**		µg/kg wet		20.0		104	70-130		
Tert-amyl methyl ether	**19.9**		µg/kg wet		20.0		100	70-130		
Ethyl tert-butyl ether	**20.6**		µg/kg wet		20.0		103	70-130		
Di-isopropyl ether	**20.7**		µg/kg wet		20.0		104	70-130		
Tert-Butanol / butyl alcohol	**197**		µg/kg wet		200		98	70-130		
1,4-Dioxane	**213**		µg/kg wet		200		106	70-130		
trans-1,4-Dichloro-2-butene	**19.6**		µg/kg wet		20.0		98	70-130		
Ethanol	**380**		µg/kg wet		400		95	70-130		
Surrogate: 4-Bromofluorobenzene	*28.8*		µg/kg wet		*30.0*		*96*	*70-130*		
Surrogate: Toluene-d8	*29.8*		µg/kg wet		*30.0*		*100*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*34.5*		µg/kg wet		*30.0*		*115*	*70-130*		
Surrogate: Dibromofluoromethane	*30.9*		µg/kg wet		*30.0*		*103*	*70-130*		
LCS Dup (1201751-BSD1)					Prepared & Analyzed: 23-Jan-12					

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201751 - SW846 5030 Soil (high level)										
LCS Dup (1201751-BSD1)					Prepared & Analyzed: 23-Jan-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**24.2**		µg/kg wet		20.0		121	70-130	6	25
Acetone	**21.5**		µg/kg wet		20.0		107	70-130	0.05	50
Acrylonitrile	**18.7**		µg/kg wet		20.0		94	70-130	2	25
Benzene	**22.2**		µg/kg wet		20.0		111	70-130	3	25
Bromobenzene	**22.6**		µg/kg wet		20.0		113	70-130	3	25
Bromochloromethane	**21.9**		µg/kg wet		20.0		109	70-130	1	25
Bromodichloromethane	**22.9**		µg/kg wet		20.0		115	70-130	5	25
Bromoform	**21.6**		µg/kg wet		20.0		108	70-130	1	25
Bromomethane	**24.4**		µg/kg wet		20.0		122	70-130	7	50
2-Butanone (MEK)	**20.0**		µg/kg wet		20.0		100	70-130	6	50
n-Butylbenzene	**24.4**		µg/kg wet		20.0		122	70-130	5	25
sec-Butylbenzene	**23.7**		µg/kg wet		20.0		119	70-130	2	25
tert-Butylbenzene	**23.6**		µg/kg wet		20.0		118	70-130	2	25
Carbon disulfide	**23.1**		µg/kg wet		20.0		115	70-130	4	25
Carbon tetrachloride	**23.0**		µg/kg wet		20.0		115	70-130	3	25
Chlorobenzene	**22.8**		µg/kg wet		20.0		114	70-130	4	25
Chloroethane	**22.6**		µg/kg wet		20.0		113	70-130	6	50
Chloroform	**22.2**		µg/kg wet		20.0		111	70-130	5	25
Chloromethane	**27.9**	QM9	µg/kg wet		20.0		140	70-130	25	25
2-Chlorotoluene	**23.0**		µg/kg wet		20.0		115	70-130	4	25
4-Chlorotoluene	**22.9**		µg/kg wet		20.0		115	70-130	4	25
1,2-Dibromo-3-chloropropane	**21.7**		µg/kg wet		20.0		109	70-130	3	25
Dibromochloromethane	**22.3**		µg/kg wet		20.0		111	70-130	2	50
1,2-Dibromoethane (EDB)	**22.7**		µg/kg wet		20.0		114	70-130	0.4	25
Dibromomethane	**22.1**		µg/kg wet		20.0		111	70-130	0.4	25
1,2-Dichlorobenzene	**23.7**		µg/kg wet		20.0		119	70-130	5	25
1,3-Dichlorobenzene	**22.7**		µg/kg wet		20.0		113	70-130	1	25
1,4-Dichlorobenzene	**23.6**		µg/kg wet		20.0		118	70-130	5	25
Dichlorodifluoromethane (Freon12)	**22.3**		µg/kg wet		20.0		112	70-130	6	50
1,1-Dichloroethane	**21.7**		µg/kg wet		20.0		108	70-130	2	25
1,2-Dichloroethane	**23.5**		µg/kg wet		20.0		118	70-130	2	25
1,1-Dichloroethene	**22.9**		µg/kg wet		20.0		114	70-130	3	25
cis-1,2-Dichloroethene	**22.1**		µg/kg wet		20.0		110	70-130	1	25
trans-1,2-Dichloroethene	**23.1**		µg/kg wet		20.0		116	70-130	4	25
1,2-Dichloropropane	**21.8**		µg/kg wet		20.0		109	70-130	3	25
1,3-Dichloropropane	**21.6**		µg/kg wet		20.0		108	70-130	2	25
2,2-Dichloropropane	**21.4**		µg/kg wet		20.0		107	70-130	2	25
1,1-Dichloropropene	**23.1**		µg/kg wet		20.0		116	70-130	5	25
cis-1,3-Dichloropropene	**21.6**		µg/kg wet		20.0		108	70-130	1	25
trans-1,3-Dichloropropene	**21.6**		µg/kg wet		20.0		108	70-130	2	25
Ethylbenzene	**23.4**		µg/kg wet		20.0		117	70-130	4	25
Hexachlorobutadiene	**24.7**		µg/kg wet		20.0		123	70-130	2	50
2-Hexanone (MBK)	**20.0**		µg/kg wet		20.0		100	70-130	2	25
Isopropylbenzene	**23.1**		µg/kg wet		20.0		116	70-130	5	25
4-Isopropyltoluene	**24.8**		µg/kg wet		20.0		124	70-130	5	25
Methyl tert-butyl ether	**20.8**		µg/kg wet		20.0		104	70-130	1	25
4-Methyl-2-pentanone (MIBK)	**19.8**		µg/kg wet		20.0		99	70-130	0.2	50
Methylene chloride	**21.5**		µg/kg wet		20.0		108	70-130	3	25
Naphthalene	**23.9**		µg/kg wet		20.0		120	70-130	3	25
n-Propylbenzene	**23.9**		µg/kg wet		20.0		120	70-130	4	25
Styrene	**23.3**		µg/kg wet		20.0		117	70-130	6	25
1,1,1,2-Tetrachloroethane	**24.1**		µg/kg wet		20.0		121	70-130	0.8	25

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201751 - SW846 5030 Soil (high level)										
LCS Dup (1201751-BSD1)					Prepared & Analyzed: 23-Jan-12					
1,1,2,2-Tetrachloroethane	**22.3**		µg/kg wet		20.0		111	70-130	0.5	25
Tetrachloroethene	**22.3**		µg/kg wet		20.0		112	70-130	4	25
Toluene	**22.6**		µg/kg wet		20.0		113	70-130	3	25
1,2,3-Trichlorobenzene	**23.9**		µg/kg wet		20.0		120	70-130	0.5	25
1,2,4-Trichlorobenzene	**23.9**		µg/kg wet		20.0		120	70-130	3	25
1,3,5-Trichlorobenzene	**23.8**		µg/kg wet		20.0		119	70-130	4	25
1,1,1-Trichloroethane	**25.0**		µg/kg wet		20.0		125	70-130	3	25
1,1,2-Trichloroethane	**21.5**		µg/kg wet		20.0		107	70-130	2	25
Trichloroethene	**22.5**		µg/kg wet		20.0		113	70-130	4	25
Trichlorofluoromethane (Freon 11)	**23.6**		µg/kg wet		20.0		118	70-130	5	50
1,2,3-Trichloropropane	**21.9**		µg/kg wet		20.0		110	70-130	1	25
1,2,4-Trimethylbenzene	**23.4**		µg/kg wet		20.0		117	70-130	5	25
1,3,5-Trimethylbenzene	**23.6**		µg/kg wet		20.0		118	70-130	5	25
Vinyl chloride	**23.9**		µg/kg wet		20.0		120	70-130	5	25
m,p-Xylene	**46.9**		µg/kg wet		40.0		117	70-130	4	25
o-Xylene	**23.2**		µg/kg wet		20.0		116	70-130	4	25
Tetrahydrofuran	**19.3**		µg/kg wet		20.0		97	70-130	7	25
Ethyl ether	**20.9**		µg/kg wet		20.0		104	70-130	0.05	50
Tert-amyl methyl ether	**20.0**		µg/kg wet		20.0		100	70-130	0.5	25
Ethyl tert-butyl ether	**21.0**		µg/kg wet		20.0		105	70-130	2	25
Di-isopropyl ether	**21.1**		µg/kg wet		20.0		106	70-130	2	25
Tert-Butanol / butyl alcohol	**191**		µg/kg wet		200		96	70-130	3	25
1,4-Dioxane	**217**		µg/kg wet		200		108	70-130	2	25
trans-1,4-Dichloro-2-butene	**20.3**		µg/kg wet		20.0		102	70-130	4	25
Ethanol	**387**		µg/kg wet		400		97	70-130	2	30
Surrogate: 4-Bromofluorobenzene	*28.6*		µg/kg wet		*30.0*		*95*	*70-130*		
Surrogate: Toluene-d8	*29.7*		µg/kg wet		*30.0*		*99*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*33.9*		µg/kg wet		*30.0*		*113*	*70-130*		
Surrogate: Dibromofluoromethane	*30.3*		µg/kg wet		*30.0*		*101*	*70-130*		
Batch 1201825 - VPH - EPA 5030B										
Blank (1201825-BLK1)					Prepared & Analyzed: 24-Jan-12					
C5-C8 Aliphatic Hydrocarbons	< 0.750		mg/kg wet	0.750						
C9-C12 Aliphatic Hydrocarbons	< 0.250		mg/kg wet	0.250						
C9-C10 Aromatic Hydrocarbons	< 0.250		mg/kg wet	0.250						
Unadjusted C5-C8 Aliphatic Hydrocarbons	< 0.750		mg/kg wet	0.750						
Unadjusted C9-C12 Aliphatic Hydrocarbons	< 0.250		mg/kg wet	0.250						
Benzene	< 0.05		mg/kg wet	0.05						
Ethylbenzene	< 0.05		mg/kg wet	0.05						
Methyl tert-butyl ether	< 0.05		mg/kg wet	0.05						
Naphthalene	< 0.05		mg/kg wet	0.05						
Toluene	< 0.05		mg/kg wet	0.05						
m,p-Xylene	< 0.1		mg/kg wet	0.1						
o-Xylene	< 0.05		mg/kg wet	0.05						
2-Methylpentane	< 0.05		mg/kg wet	0.05						
n-Nonane	< 0.1		mg/kg wet	0.1						
n-Pentane	< 0.1		mg/kg wet	0.1						
1,2,4-Trimethylbenzene	< 0.05		mg/kg wet	0.05						
2,2,4-Trimethylpentane	< 0.05		mg/kg wet	0.05						
n-Butylcyclohexane	< 0.05		mg/kg wet	0.05						
n-Decane	< 0.05		mg/kg wet	0.05						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201825 - VPH - EPA 5030B										
Blank (1201825-BLK1)						Prepared & Analyzed: 24-Jan-12				
Surrogate: 2,5-Dibromotoluene (FID)	*42.8*		mg/kg wet		*50.0*		*86*	*70-130*		
Surrogate: 2,5-Dibromotoluene (PID)	*37.5*		mg/kg wet		*50.0*		*75*	*70-130*		
LCS (1201825-BS1)						Prepared & Analyzed: 24-Jan-12				
C5-C8 Aliphatic Hydrocarbons	**70.6**		mg/kg wet		60.0		118	70-130		
C9-C12 Aliphatic Hydrocarbons	**56.9**		mg/kg wet		60.0		95	70-130		
C9-C10 Aromatic Hydrocarbons	**16.2**		mg/kg wet		20.0		81	70-130		
Unadjusted C5-C8 Aliphatic Hydrocarbons	**194**		mg/kg wet		200		97	70-130		
Unadjusted C9-C12 Aliphatic Hydrocarbons	**73.2**		mg/kg wet		80.0		91	70-130		
Benzene	**19.2**		mg/kg wet		20.0		96	70-130		
Ethylbenzene	**16.6**		mg/kg wet		20.0		83	70-130		
Methyl tert-butyl ether	**19.3**		mg/kg wet		20.0		97	70-130		
Naphthalene	**16.3**		mg/kg wet		20.0		81	70-130		
Toluene	**18.3**		mg/kg wet		20.0		91	70-130		
m,p-Xylene	**33.0**		mg/kg wet		40.0		83	70-130		
o-Xylene	**16.6**		mg/kg wet		20.0		83	70-130		
2-Methylpentane	**19.9**		mg/kg wet		20.0		99	70-130		
n-Nonane	**16.7**		mg/kg wet		20.0		83	70-130		
n-Pentane	**19.0**		mg/kg wet		20.0		95	70-130		
1,2,4-Trimethylbenzene	**16.0**		mg/kg wet		20.0		80	70-130		
2,2,4-Trimethylpentane	**20.4**		mg/kg wet		20.0		102	70-130		
n-Butylcyclohexane	**16.3**		mg/kg wet		20.0		82	70-130		
n-Decane	**14.4**		mg/kg wet		20.0		72	70-130		
Surrogate: 2,5-Dibromotoluene (FID)	*42.0*		mg/kg wet		*50.0*		*84*	*70-130*		
Surrogate: 2,5-Dibromotoluene (PID)	*36.4*		mg/kg wet		*50.0*		*73*	*70-130*		
LCS Dup (1201825-BSD1)						Prepared & Analyzed: 24-Jan-12				
C5-C8 Aliphatic Hydrocarbons	**61.4**		mg/kg wet		60.0		102	70-130	14	25
C9-C12 Aliphatic Hydrocarbons	**59.3**		mg/kg wet		60.0		99	70-130	4	25
C9-C10 Aromatic Hydrocarbons	**17.6**		mg/kg wet		20.0		88	70-130	8	25
Unadjusted C5-C8 Aliphatic Hydrocarbons	**196**		mg/kg wet		200		98	70-130	1	25
Unadjusted C9-C12 Aliphatic Hydrocarbons	**76.9**		mg/kg wet		80.0		96	70-130	5	25
Benzene	**19.4**		mg/kg wet		20.0		97	70-130	0.8	25
Ethylbenzene	**19.0**		mg/kg wet		20.0		95	70-130	13	25
Methyl tert-butyl ether	**19.2**		mg/kg wet		20.0		96	70-130	0.7	25
Naphthalene	**19.9**		mg/kg wet		20.0		99	70-130	20	25
Toluene	**19.8**		mg/kg wet		20.0		99	70-130	8	25
m,p-Xylene	**37.9**		mg/kg wet		40.0		95	70-130	14	25
o-Xylene	**19.4**		mg/kg wet		20.0		97	70-130	15	25
2-Methylpentane	**17.5**		mg/kg wet		20.0		88	70-130	13	25
n-Nonane	**19.2**		mg/kg wet		20.0		96	70-130	14	25
n-Pentane	**16.7**		mg/kg wet		20.0		84	70-130	13	25
1,2,4-Trimethylbenzene	**18.7**		mg/kg wet		20.0		93	70-130	16	25
2,2,4-Trimethylpentane	**18.7**		mg/kg wet		20.0		94	70-130	8	25
n-Butylcyclohexane	**19.8**		mg/kg wet		20.0		99	70-130	19	25
n-Decane	**20.8**	QR2	mg/kg wet		20.0		104	70-130	36	25
Surrogate: 2,5-Dibromotoluene (FID)	*50.0*		mg/kg wet		*50.0*		*100*	*70-130*		
Surrogate: 2,5-Dibromotoluene (PID)	*41.0*		mg/kg wet		*50.0*		*82*	*70-130*		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201586 - SW846 3545A										
Blank (1201586-BLK1)					Prepared & Analyzed: 20-Jan-12					
Aroclor-1016	< 20.0		µg/kg wet	20.0						
Aroclor-1016 [2C]	< 20.0		µg/kg wet	20.0						
Aroclor-1221	< 20.0		µg/kg wet	20.0						
Aroclor-1221 [2C]	< 20.0		µg/kg wet	20.0						
Aroclor-1232	< 20.0		µg/kg wet	20.0						
Aroclor-1232 [2C]	< 20.0		µg/kg wet	20.0						
Aroclor-1242	< 20.0		µg/kg wet	20.0						
Aroclor-1242 [2C]	< 20.0		µg/kg wet	20.0						
Aroclor-1248	< 20.0		µg/kg wet	20.0						
Aroclor-1248 [2C]	< 20.0		µg/kg wet	20.0						
Aroclor-1254	< 20.0		µg/kg wet	20.0						
Aroclor-1254 [2C]	< 20.0		µg/kg wet	20.0						
Aroclor-1260	< 20.0		µg/kg wet	20.0						
Aroclor-1260 [2C]	< 20.0		µg/kg wet	20.0						
Aroclor-1262	< 20.0		µg/kg wet	20.0						
Aroclor-1262 [2C]	< 20.0		µg/kg wet	20.0						
Aroclor-1268	< 20.0		µg/kg wet	20.0						
Aroclor-1268 [2C]	< 20.0		µg/kg wet	20.0						
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	*14.0*		µg/kg wet		*20.0*		*70*	*30-150*		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C]	*18.0*		µg/kg wet		*20.0*		*90*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr)	*25.0*		µg/kg wet		*20.0*		*125*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr) [2C]	*25.0*		µg/kg wet		*20.0*		*125*	*30-150*		
LCS (1201586-BS1)					Prepared & Analyzed: 20-Jan-12					
Aroclor-1016	**200**		µg/kg wet	20.0	250		80	50-140		
Aroclor-1016 [2C]	**225**		µg/kg wet	20.0	250		90	50-140		
Aroclor-1260	**187**		µg/kg wet	20.0	250		75	50-140		
Aroclor-1260 [2C]	**209**		µg/kg wet	20.0	250		84	50-140		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	*16.0*		µg/kg wet		*20.0*		*80*	*30-150*		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C]	*17.0*		µg/kg wet		*20.0*		*85*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr)	*25.0*		µg/kg wet		*20.0*		*125*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr) [2C]	*24.0*		µg/kg wet		*20.0*		*120*	*30-150*		
LCS Dup (1201586-BSD1)					Prepared & Analyzed: 20-Jan-12					
Aroclor-1016	**201**		µg/kg wet	20.0	250		80	50-140	0.5	30
Aroclor-1016 [2C]	**215**		µg/kg wet	20.0	250		86	50-140	5	30
Aroclor-1260	**196**		µg/kg wet	20.0	250		78	50-140	5	30
Aroclor-1260 [2C]	**218**		µg/kg wet	20.0	250		87	50-140	4	30
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	*16.0*		µg/kg wet		*20.0*		*80*	*30-150*		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C]	*17.0*		µg/kg wet		*20.0*		*85*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr)	*27.0*		µg/kg wet		*20.0*		*135*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr) [2C]	*25.0*		µg/kg wet		*20.0*		*125*	*30-150*		
Duplicate (1201586-DUP1)			**Source: SB42546-06**			Prepared & Analyzed: 20-Jan-12				
Aroclor-1016	< 22.0		µg/kg dry	22.0		BRL				40
Aroclor-1016 [2C]	< 22.0		µg/kg dry	22.0		BRL				40
Aroclor-1221	< 22.0		µg/kg dry	22.0		BRL				40
Aroclor-1221 [2C]	< 22.0		µg/kg dry	22.0		BRL				40
Aroclor-1232	< 22.0		µg/kg dry	22.0		BRL				40
Aroclor-1232 [2C]	< 22.0		µg/kg dry	22.0		BRL				40
Aroclor-1242	< 22.0		µg/kg dry	22.0		BRL				40
Aroclor-1242 [2C]	< 22.0		µg/kg dry	22.0		BRL				40
Aroclor-1248	< 22.0		µg/kg dry	22.0		BRL				40

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201586 - SW846 3545A										
Duplicate (1201586-DUP1)			**Source: SB42546-06**			Prepared & Analyzed: 20-Jan-12				
Aroclor-1248 [2C]	< 22.0		µg/kg dry	22.0		BRL				40
Aroclor-1254	< 22.0		µg/kg dry	22.0		BRL				40
Aroclor-1254 [2C]	< 22.0		µg/kg dry	22.0		BRL				40
Aroclor-1260	< 22.0		µg/kg dry	22.0		BRL				40
Aroclor-1260 [2C]	< 22.0		µg/kg dry	22.0		BRL				40
Aroclor-1262	< 22.0		µg/kg dry	22.0		BRL				40
Aroclor-1262 [2C]	< 22.0		µg/kg dry	22.0		BRL				40
Aroclor-1268	< 22.0		µg/kg dry	22.0		BRL				40
Aroclor-1268 [2C]	< 22.0		µg/kg dry	22.0		BRL				40
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	*12.1*		µg/kg dry		*22.0*		*55*	*30-150*		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C]	*14.3*		µg/kg dry		*22.0*		*65*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr)	*22.0*		µg/kg dry		*22.0*		*100*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr) [2C]	*19.8*		µg/kg dry		*22.0*		*90*	*30-150*		
Matrix Spike (1201586-MS1)			**Source: SB42546-06**			Prepared & Analyzed: 20-Jan-12				
Aroclor-1016	**210**		µg/kg dry	21.1	264	BRL	80	40-135		
Aroclor-1016 [2C]	**209**		µg/kg dry	21.1	264	BRL	79	40-135		
Aroclor-1260	**185**		µg/kg dry	21.1	264	BRL	70	40-135		
Aroclor-1260 [2C]	**189**		µg/kg dry	21.1	264	BRL	72	40-135		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	*13.7*		µg/kg dry		*21.1*		*65*	*30-150*		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C]	*14.8*		µg/kg dry		*21.1*		*70*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr)	*25.3*		µg/kg dry		*21.1*		*120*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr) [2C]	*22.2*		µg/kg dry		*21.1*		*105*	*30-150*		
Matrix Spike Dup (1201586-MSD1)			**Source: SB42546-06**			Prepared & Analyzed: 20-Jan-12				
Aroclor-1016	**196**		µg/kg dry	21.7	271	BRL	72	40-135	9	30
Aroclor-1016 [2C]	**213**		µg/kg dry	21.7	271	BRL	78	40-135	1	30
Aroclor-1260	**188**		µg/kg dry	21.7	271	BRL	69	40-135	1	30
Aroclor-1260 [2C]	**200**		µg/kg dry	21.7	271	BRL	74	40-135	3	30
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	*15.2*		µg/kg dry		*21.7*		*70*	*30-150*		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C]	*15.2*		µg/kg dry		*21.7*		*70*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr)	*24.9*		µg/kg dry		*21.7*		*115*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr) [2C]	*23.9*		µg/kg dry		*21.7*		*110*	*30-150*		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201380 - SW846 3545A										
Blank (1201380-BLK1)						Prepared & Analyzed: 18-Jan-12				
C9-C18 Aliphatic Hydrocarbons	< 5.00		mg/kg wet	5.00						
C19-C36 Aliphatic Hydrocarbons	< 5.00		mg/kg wet	5.00						
C11-C22 Aromatic Hydrocarbons	< 5.00		mg/kg wet	5.00						
Unadjusted C11-C22 Aromatic Hydrocarbons	< 5.00		mg/kg wet	5.00						
Total Petroleum Hydrocarbons	< 5.00		mg/kg wet	5.00						
Unadjusted Total Petroleum Hydrocarbons	< 5.00		mg/kg wet	5.00						
Naphthalene	< 0.166		mg/kg wet	0.166						
2-Methylnaphthalene	< 0.166		mg/kg wet	0.166						
Acenaphthylene	< 0.166		mg/kg wet	0.166						
Acenaphthene	< 0.166		mg/kg wet	0.166						
Fluorene	< 0.166		mg/kg wet	0.166						
Phenanthrene	< 0.166		mg/kg wet	0.166						
Anthracene	< 0.166		mg/kg wet	0.166						
Fluoranthene	< 0.166		mg/kg wet	0.166						
Pyrene	< 0.166		mg/kg wet	0.166						
Benzo (a) anthracene	< 0.166		mg/kg wet	0.166						
Chrysene	< 0.166		mg/kg wet	0.166						
Benzo (b) fluoranthene	< 0.166		mg/kg wet	0.166						
Benzo (k) fluoranthene	< 0.166		mg/kg wet	0.166						
Benzo (a) pyrene	< 0.166		mg/kg wet	0.166						
Indeno (1,2,3-cd) pyrene	< 0.166		mg/kg wet	0.166						
Dibenzo (a,h) anthracene	< 0.166		mg/kg wet	0.166						
Benzo (g,h,i) perylene	< 0.166		mg/kg wet	0.166						
n-Nonane (C9)	< 0.166		mg/kg wet	0.166						
n-Decane	< 0.166		mg/kg wet	0.166						
n-Dodecane	< 0.166		mg/kg wet	0.166						
n-Tetradecane	< 0.166		mg/kg wet	0.166						
n-Hexadecane	< 0.166		mg/kg wet	0.166						
n-Octadecane	< 0.166		mg/kg wet	0.166						
n-Nonadecane	< 0.166		mg/kg wet	0.166						
n-Eicosane	< 0.166		mg/kg wet	0.166						
n-Docosane	< 0.166		mg/kg wet	0.166						
n-Tetracosane	< 0.166		mg/kg wet	0.166						
n-Hexacosane	< 0.166		mg/kg wet	0.166						
n-Octacosane	< 0.166		mg/kg wet	0.166						
n-Triacontane	< 0.166		mg/kg wet	0.166						
n-Hexatriacontane	< 0.166		mg/kg wet	0.166						
Naphthalene (aliphatic fraction)	**0.00**		mg/kg wet							
2-Methylnaphthalene (aliphatic fraction)	**0.00**		mg/kg wet							
Surrogate: 1-Chlorooctadecane	*3.89*		mg/kg wet		*3.33*		*117*	*40-140*		
Surrogate: Ortho-Terphenyl	*2.04*		mg/kg wet		*3.33*		*61*	*40-140*		
Surrogate: 2-Fluorobiphenyl	*1.81*		mg/kg wet		*2.67*		*68*	*40-140*		
LCS (1201380-BS1)						Prepared & Analyzed: 18-Jan-12				
C9-C18 Aliphatic Hydrocarbons	**29.1**		mg/kg wet	5.00	40.0		73	40-140		
C19-C36 Aliphatic Hydrocarbons	**29.8**		mg/kg wet	5.00	53.3		56	40-140		
C11-C22 Aromatic Hydrocarbons	**53.3**		mg/kg wet	5.00	113		47	40-140		
Naphthalene	**3.02**		mg/kg wet	0.166	6.67		45	40-140		
2-Methylnaphthalene	**3.11**		mg/kg wet	0.166	6.67		47	40-140		
Acenaphthylene	**3.36**		mg/kg wet	0.166	6.67		50	40-140		
Acenaphthene	**3.43**		mg/kg wet	0.166	6.67		51	40-140		
Fluorene	**3.63**		mg/kg wet	0.166	6.67		54	40-140		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201380 - SW846 3545A										
LCS (1201380-BS1)					Prepared & Analyzed: 18-Jan-12					
Phenanthrene	**3.88**		mg/kg wet	0.166	6.67		58	40-140		
Anthracene	**3.46**		mg/kg wet	0.166	6.67		52	40-140		
Fluoranthene	**3.99**		mg/kg wet	0.166	6.67		60	40-140		
Pyrene	**3.94**		mg/kg wet	0.166	6.67		59	40-140		
Benzo (a) anthracene	**4.04**		mg/kg wet	0.166	6.67		61	40-140		
Chrysene	**3.98**		mg/kg wet	0.166	6.67		60	40-140		
Benzo (b) fluoranthene	**4.18**		mg/kg wet	0.166	6.67		63	40-140		
Benzo (k) fluoranthene	**3.79**		mg/kg wet	0.166	6.67		57	40-140		
Benzo (a) pyrene	**3.61**		mg/kg wet	0.166	6.67		54	40-140		
Indeno (1,2,3-cd) pyrene	**3.86**		mg/kg wet	0.166	6.67		58	40-140		
Dibenzo (a,h) anthracene	**3.80**		mg/kg wet	0.166	6.67		57	40-140		
Benzo (g,h,i) perylene	**3.70**		mg/kg wet	0.166	6.67		56	40-140		
n-Nonane (C9)	**3.69**		mg/kg wet	0.166	6.67		55	30-140		
n-Decane	**4.26**		mg/kg wet	0.166	6.67		64	40-140		
n-Dodecane	**4.61**		mg/kg wet	0.166	6.67		69	40-140		
n-Tetradecane	**5.09**		mg/kg wet	0.166	6.67		76	40-140		
n-Hexadecane	**5.50**		mg/kg wet	0.166	6.67		82	40-140		
n-Octadecane	**5.77**		mg/kg wet	0.166	6.67		87	40-140		
n-Nonadecane	**5.85**		mg/kg wet	0.166	6.67		88	40-140		
n-Eicosane	**5.94**		mg/kg wet	0.166	6.67		89	40-140		
n-Docosane	**6.05**		mg/kg wet	0.166	6.67		91	40-140		
n-Tetracosane	**5.98**		mg/kg wet	0.166	6.67		90	40-140		
n-Hexacosane	**5.96**		mg/kg wet	0.166	6.67		89	40-140		
n-Octacosane	**6.01**		mg/kg wet	0.166	6.67		90	40-140		
n-Triacontane	**5.77**		mg/kg wet	0.166	6.67		87	40-140		
n-Hexatriacontane	**5.56**		mg/kg wet	0.166	6.67		83	40-140		
Naphthalene (aliphatic fraction)	**0.00**		mg/kg wet					0-200		
2-Methylnaphthalene (aliphatic fraction)	**0.00**		mg/kg wet					0-200		
Surrogate: 1-Chlorooctadecane	*2.93*		mg/kg wet		*3.33*		*88*	*40-140*		
Surrogate: Ortho-Terphenyl	*1.80*		mg/kg wet		*3.33*		*54*	*40-140*		
Surrogate: 2-Fluorobiphenyl	*1.63*		mg/kg wet		*2.67*		*61*	*40-140*		
Naphthalene Breakthrough	0.00		%					0-5		
2-Methylnaphthalene Breakthrough	0.00		%					0-5		
LCS (1201380-BS2)					Prepared: 18-Jan-12 Analyzed: 19-Jan-12					
C9-C18 Aliphatic Hydrocarbons	**23.8**		mg/kg wet	5.00	40.0		60	40-140		
C19-C36 Aliphatic Hydrocarbons	**47.5**		mg/kg wet	5.00	53.3		89	40-140		
C11-C22 Aromatic Hydrocarbons	**72.7**		mg/kg wet	5.00	113		64	40-140		
Naphthalene	**4.17**		mg/kg wet	0.166	6.67		62	40-140		
2-Methylnaphthalene	**4.10**		mg/kg wet	0.166	6.67		61	40-140		
Acenaphthylene	**4.73**		mg/kg wet	0.166	6.67		71	40-140		
Acenaphthene	**4.91**		mg/kg wet	0.166	6.67		74	40-140		
Fluorene	**4.89**		mg/kg wet	0.166	6.67		73	40-140		
Phenanthrene	**4.58**		mg/kg wet	0.166	6.67		69	40-140		
Anthracene	**4.50**		mg/kg wet	0.166	6.67		68	40-140		
Fluoranthene	**4.67**		mg/kg wet	0.166	6.67		70	40-140		
Pyrene	**4.52**		mg/kg wet	0.166	6.67		68	40-140		
Benzo (a) anthracene	**3.98**		mg/kg wet	0.166	6.67		60	40-140		
Chrysene	**4.06**		mg/kg wet	0.166	6.67		61	40-140		
Benzo (b) fluoranthene	**3.88**		mg/kg wet	0.166	6.67		58	40-140		
Benzo (k) fluoranthene	**3.62**		mg/kg wet	0.166	6.67		54	40-140		
Benzo (a) pyrene	**3.17**		mg/kg wet	0.166	6.67		48	40-140		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201380 - SW846 3545A										
LCS (1201380-BS2)					Prepared: 18-Jan-12 Analyzed: 19-Jan-12					
Indeno (1,2,3-cd) pyrene	**3.12**		mg/kg wet	0.166	6.67		47	40-140		
Dibenzo (a,h) anthracene	**3.13**		mg/kg wet	0.166	6.67		47	40-140		
Benzo (g,h,i) perylene	**3.14**		mg/kg wet	0.166	6.67		47	40-140		
n-Nonane (C9)	**3.53**		mg/kg wet	0.166	6.67		53	30-140		
n-Decane	**4.05**		mg/kg wet	0.166	6.67		61	40-140		
n-Dodecane	**4.21**		mg/kg wet	0.166	6.67		63	40-140		
n-Tetradecane	**4.72**		mg/kg wet	0.166	6.67		71	40-140		
n-Hexadecane	**5.17**		mg/kg wet	0.166	6.67		78	40-140		
n-Octadecane	**5.36**		mg/kg wet	0.166	6.67		80	40-140		
n-Nonadecane	**5.41**		mg/kg wet	0.166	6.67		81	40-140		
n-Eicosane	**5.46**		mg/kg wet	0.166	6.67		82	40-140		
n-Docosane	**5.49**		mg/kg wet	0.166	6.67		82	40-140		
n-Tetracosane	**5.41**		mg/kg wet	0.166	6.67		81	40-140		
n-Hexacosane	**5.39**		mg/kg wet	0.166	6.67		81	40-140		
n-Octacosane	**5.46**		mg/kg wet	0.166	6.67		82	40-140		
n-Triacontane	**5.26**		mg/kg wet	0.166	6.67		79	40-140		
n-Hexatriacontane	**5.31**		mg/kg wet	0.166	6.67		80	40-140		
Naphthalene (aliphatic fraction)	**0.00**		mg/kg wet					0-200		
2-Methylnaphthalene (aliphatic fraction)	**0.00**		mg/kg wet					0-200		
Surrogate: 1-Chlorooctadecane	*2.51*		mg/kg wet		*3.33*		*75*	*40-140*		
Surrogate: Ortho-Terphenyl	*2.42*		mg/kg wet		*3.33*		*72*	*40-140*		
Surrogate: 2-Fluorobiphenyl	*2.18*		mg/kg wet		*2.67*		*82*	*40-140*		
Naphthalene Breakthrough	0.00		%					0-5		
2-Methylnaphthalene Breakthrough	0.00		%					0-5		
LCS Dup (1201380-BSD1)					Prepared & Analyzed: 18-Jan-12					
C9-C18 Aliphatic Hydrocarbons	**25.4**		mg/kg wet	5.00	40.0		64	40-140	13	25
C19-C36 Aliphatic Hydrocarbons	**24.3**		mg/kg wet	5.00	53.3		46	40-140	20	25
C11-C22 Aromatic Hydrocarbons	**58.7**		mg/kg wet	5.00	113		52	40-140	10	25
Naphthalene	**3.18**		mg/kg wet	0.166	6.67		48	40-140	5	25
2-Methylnaphthalene	**3.22**		mg/kg wet	0.166	6.67		48	40-140	3	25
Acenaphthylene	**3.64**		mg/kg wet	0.166	6.67		55	40-140	8	25
Acenaphthene	**3.59**		mg/kg wet	0.166	6.67		54	40-140	5	25
Fluorene	**3.91**		mg/kg wet	0.166	6.67		59	40-140	7	25
Phenanthrene	**4.15**		mg/kg wet	0.166	6.67		62	40-140	7	25
Anthracene	**4.02**		mg/kg wet	0.166	6.67		60	40-140	15	25
Fluoranthene	**4.28**		mg/kg wet	0.166	6.67		64	40-140	7	25
Pyrene	**4.26**		mg/kg wet	0.166	6.67		64	40-140	8	25
Benzo (a) anthracene	**4.39**		mg/kg wet	0.166	6.67		66	40-140	8	25
Chrysene	**4.06**		mg/kg wet	0.166	6.67		61	40-140	2	25
Benzo (b) fluoranthene	**4.20**		mg/kg wet	0.166	6.67		63	40-140	0.4	25
Benzo (k) fluoranthene	**4.25**		mg/kg wet	0.166	6.67		64	40-140	11	25
Benzo (a) pyrene	**3.92**		mg/kg wet	0.166	6.67		59	40-140	8	25
Indeno (1,2,3-cd) pyrene	**4.01**		mg/kg wet	0.166	6.67		60	40-140	4	25
Dibenzo (a,h) anthracene	**4.02**		mg/kg wet	0.166	6.67		60	40-140	6	25
Benzo (g,h,i) perylene	**4.01**		mg/kg wet	0.166	6.67		60	40-140	8	25
n-Nonane (C9)	**3.13**		mg/kg wet	0.166	6.67		47	30-140	17	25
n-Decane	**3.62**		mg/kg wet	0.166	6.67		54	40-140	16	25
n-Dodecane	**3.95**		mg/kg wet	0.166	6.67		59	40-140	15	25
n-Tetradecane	**4.44**		mg/kg wet	0.166	6.67		67	40-140	14	25
n-Hexadecane	**4.89**		mg/kg wet	0.166	6.67		73	40-140	12	25
n-Octadecane	**5.22**		mg/kg wet	0.166	6.67		78	40-140	10	25

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201380 - SW846 3545A										
LCS Dup (1201380-BSD1)						Prepared & Analyzed: 18-Jan-12				
n-Nonadecane	**5.30**		mg/kg wet	0.166	6.67		80	40-140	10	25
n-Eicosane	**5.37**		mg/kg wet	0.166	6.67		81	40-140	10	25
n-Docosane	**5.46**		mg/kg wet	0.166	6.67		82	40-140	10	25
n-Tetracosane	**5.34**		mg/kg wet	0.166	6.67		80	40-140	11	25
n-Hexacosane	**5.32**		mg/kg wet	0.166	6.67		80	40-140	11	25
n-Octacosane	**5.33**		mg/kg wet	0.166	6.67		80	40-140	12	25
n-Triacontane	**5.04**		mg/kg wet	0.166	6.67		76	40-140	13	25
n-Hexatriacontane	**4.59**		mg/kg wet	0.166	6.67		69	40-140	19	25
Naphthalene (aliphatic fraction)	**0.00**		mg/kg wet					0-200		200
2-Methylnaphthalene (aliphatic fraction)	**0.00**		mg/kg wet					0-200		200
Surrogate: 1-Chlorooctadecane	*2.04*		mg/kg wet		*3.33*		*61*	*40-140*		
Surrogate: Ortho-Terphenyl	*2.12*		mg/kg wet		*3.33*		*64*	*40-140*		
Surrogate: 2-Fluorobiphenyl	*1.93*		mg/kg wet		*2.67*		*72*	*40-140*		
Naphthalene Breakthrough	0.00		%					0-5		
2-Methylnaphthalene Breakthrough	0.00		%					0-5		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201419 - SW846 3050B										
Blank (1201419-BLK1)					Prepared: 19-Jan-12 Analyzed: 20-Jan-12					
Antimony	< 4.47		mg/kg wet	4.47						
Iron	< 3.57		mg/kg wet	3.57						
Potassium	< 44.7		mg/kg wet	44.7						
Magnesium	< 4.47		mg/kg wet	4.47						
Manganese	< 0.894		mg/kg wet	0.894						
Zinc	< 0.894		mg/kg wet	0.894						
Vanadium	< 1.34		mg/kg wet	1.34						
Thallium	< 2.68		mg/kg wet	2.68						
Selenium	< 1.34		mg/kg wet	1.34						
Lead	< 1.34		mg/kg wet	1.34						
Nickel	< 0.894		mg/kg wet	0.894						
Sodium	< 22.3		mg/kg wet	22.3						
Cadmium	< 0.447		mg/kg wet	0.447						
Beryllium	< 0.447		mg/kg wet	0.447						
Cobalt	< 0.894		mg/kg wet	0.894						
Chromium	< 0.894		mg/kg wet	0.894						
Calcium	< 22.3		mg/kg wet	22.3						
Copper	< 0.894		mg/kg wet	0.894						
Arsenic	< 1.34		mg/kg wet	1.34						
Silver	< 1.34		mg/kg wet	1.34						
Aluminum	< 4.47		mg/kg wet	4.47						
Barium	< 0.894		mg/kg wet	0.894						
Reference (1201419-SRM1)					Prepared: 19-Jan-12 Analyzed: 22-Jan-12					
Iron	**6440**		mg/kg wet	4.00	6170		104	50.7-149.6		
Magnesium	**1220**		mg/kg wet	5.00	1320		92	78-122		
Manganese	**176**		mg/kg wet	1.00	176		100	82.6-117.4		
Sodium	**192**		mg/kg wet	25.0	181		106	73.3-126.9		
Nickel	**36.4**		mg/kg wet	1.00	35.7		102	83.3-116.6		
Lead	**38.8**		mg/kg wet	1.50	38.2		101	83.6-116.5		
Antimony	**54.2**		mg/kg wet	5.00	53.2		102	9.2-192		
Selenium	**65.7**		mg/kg wet	1.50	63.7		103	80.3-119.7		
Thallium	**152**		mg/kg wet	3.00	133		114	81.2-118.8		
Vanadium	**44.1**		mg/kg wet	1.50	43.2		102	79.4-120.8		
Zinc	**139**		mg/kg wet	1.00	140		99	82.1-117.9		
Potassium	**1580**		mg/kg wet	50.0	1480		107	73.3-127		
Cadmium	**41.2**		mg/kg wet	0.500	40.2		102	84-116		
Silver	**21.1**		mg/kg wet	1.50	20.6		103	66.1-133.7		
Aluminum	**4050**		mg/kg wet	5.00	4210		96	40.8-159.7		
Calcium	**3250**		mg/kg wet	25.0	3360		97	83.1-116.9		
Cobalt	**65.1**		mg/kg wet	1.00	63.7		102	82.7-116.5		
Chromium	**61.6**		mg/kg wet	1.00	58.7		105	81.7-117.9		
Copper	**62.8**		mg/kg wet	1.00	58.7		107	83.8-116.2		
Beryllium	**41.8**		mg/kg wet	0.500	44.2		94	83.8-115.6		
Arsenic	**58.2**		mg/kg wet	1.50	54.7		107	82.9-117.4		
Barium	**103**		mg/kg wet	1.00	103		100	83.5-116.5		
Reference (1201419-SRM2)					Prepared: 19-Jan-12 Analyzed: 20-Jan-12					
Lead	**38.5**		mg/kg wet	1.50	39.1		99	83.6-116.5		
Potassium	**1590**		mg/kg wet	50.0	1520		105	73.3-127		
Magnesium	**1230**		mg/kg wet	5.00	1350		91	78-122		
Manganese	**177**		mg/kg wet	1.00	179		99	82.6-117.4		
Nickel	**35.5**		mg/kg wet	1.00	36.5		97	83.3-116.6		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201419 - SW846 3050B										
Reference (1201419-SRM2)					Prepared: 19-Jan-12 Analyzed: 20-Jan-12					
Antimony	**54.9**		mg/kg wet	5.00	54.3		101	9.2-192		
Selenium	**64.8**		mg/kg wet	1.50	65.1		99	80.3-119.7		
Thallium	**155**		mg/kg wet	3.00	136		114	81.2-118.8		
Vanadium	**44.6**		mg/kg wet	1.50	44.1		101	79.4-120.8		
Zinc	**141**		mg/kg wet	1.00	144		98	82.1-117.9		
Iron	**6360**		mg/kg wet	4.00	6300		101	50.7-149.6		
Sodium	**187**		mg/kg wet	25.0	184		101	73.3-126.9		
Cobalt	**63.4**		mg/kg wet	1.00	65.1		97	82.7-116.5		
Silver	**21.1**		mg/kg wet	1.50	21.0		101	66.1-133.7		
Aluminum	**3890**		mg/kg wet	5.00	4300		90	40.8-159.7		
Arsenic	**56.9**		mg/kg wet	1.50	55.9		102	82.9-117.4		
Cadmium	**41.0**		mg/kg wet	0.500	41.1		100	84-116		
Chromium	**63.0**		mg/kg wet	1.00	60.0		105	81.7-117.9		
Copper	**62.8**		mg/kg wet	1.00	60.0		105	83.8-116.2		
Beryllium	**42.3**		mg/kg wet	0.500	45.2		94	83.8-115.6		
Calcium	**3450**		mg/kg wet	25.0	3430		100	83.1-116.9		
Barium	**104**		mg/kg wet	1.00	106		99	83.5-116.5		
Batch 1201420 - EPA200/SW7000 Series										
Blank (1201420-BLK1)					Prepared & Analyzed: 24-Jan-12					
Mercury	< 0.0276		mg/kg wet	0.0276						
Reference (1201420-SRM1)					Prepared & Analyzed: 24-Jan-12					
Mercury	**2.61**		mg/kg wet	0.300	2.24		117	71.8-127.8		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1205567 - SW846 3010A										
Blank (1205567-BLK1)					Prepared: 13-Mar-12 Analyzed: 14-Mar-12					
Lead	< 0.0150		mg/l	0.0150						
LCS (1205567-BS1)					Prepared: 13-Mar-12 Analyzed: 14-Mar-12					
Lead	**2.33**		mg/l	0.0150	2.50		93	85-115		
LCS Dup (1205567-BSD1)					Prepared: 13-Mar-12 Analyzed: 14-Mar-12					
Lead	**2.33**		mg/l	0.0150	2.50		93	85-115	0.3	20

General Chemistry Parameters - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1201291 - General Preparation										
Duplicate (1201291-DUP1)			**Source: SB42546-01**			Prepared & Analyzed: 17-Jan-12				
% Solids	**79.8**		%			78.3			2	20

Extractable Petroleum Hydrocarbons - CCV Evaluation Report

Analyte(s)	Average RF	CCRF	% D	Limit
Batch S201004				
Calibration Check (S201004-CCV1)				
C9-C18 Aliphatic Hydrocarbons	2.078454E+08	1.715622E+08	-6.8	25
C19-C36 Aliphatic Hydrocarbons	2.183231E+08	2.133576E+08	11.5	25
C11-C22 Aromatic Hydrocarbons	20.15262	18.13642	2.4	25
Naphthalene	6.099369	6.110563	0.2	25
2-Methylnaphthalene	4.267552	4.134676	-3.1	25
Acenaphthylene	6.09213	6.317379	3.7	25
Acenaphthene	4.005159	4.163755	4.0	25
Fluorene	4.509317	4.686078	3.9	25
Phenanthrene	6.15939	6.62409	7.5	25
Anthracene	6.269953	6.99823	11.6	25
Fluoranthene	6.557219	7.233059	10.3	25
Pyrene	6.869187	7.618598	10.9	25
Benzo (a) anthracene	6.380345	6.599166	3.4	25
Chrysene	6.415828	6.714795	4.7	25
Benzo (b) fluoranthene	6.802826	5.720214	-15.9	25
Benzo (k) fluoranthene	7.102797	6.544426	-7.9	25
Benzo (a) pyrene	6.572576	6.048745	-8.0	25
Indeno (1,2,3-cd) pyrene	7.596038	6.237473	-17.9	25
Dibenzo (a,h) anthracene	6.447403	5.360988	-16.9	25
Benzo (g,h,i) perylene	6.549651	5.491693	-16.2	25
n-Nonane (C9)	192121.7	203168.3	7.6	30
n-Decane	191928.6	204287.6	8.3	25
n-Dodecane	191715.2	204452.2	6.6	25
n-Tetradecane	188577.1	203473	7.9	25
n-Hexadecane	183494.2	199640.3	8.8	25
n-Octadecane	177254.9	192639	8.7	25
n-Nonadecane	173919.5	189915.8	9.2	25
n-Eicosane	168388.3	185363.3	10.1	25
n-Docosane	161705.9	184105	13.9	25
n-Tetracosane	156462.2	183753.6	17.4	25
n-Hexacosane	154857.4	184505.4	19.1	25
n-Octacosane	150049.8	182118.2	21.4	25
n-Triacontane	154838.9	190534.6	23.1	25
n-Hexatriacontane	147651	184407.3	24.9	25
Calibration Check (S201004-CCV2)				
C9-C18 Aliphatic Hydrocarbons	2.078454E+08	1.592746E+08	-13.5	25
C19-C36 Aliphatic Hydrocarbons	2.183231E+08	2.228983E+08	17.4	25
C11-C22 Aromatic Hydrocarbons	20.15262	18.53868	4.7	25
Naphthalene	6.099369	5.965544	-2.2	25
2-Methylnaphthalene	4.267552	4.08365	-4.3	25
Acenaphthylene	6.09213	6.288054	3.2	25
Acenaphthene	4.005159	4.091135	2.1	25
Fluorene	4.509317	4.691382	4.0	25
Phenanthrene	6.15939	6.572738	6.7	25
Anthracene	6.269953	6.976972	11.3	25
Fluoranthene	6.557219	7.413084	13.1	25
Pyrene	6.869187	7.857939	14.4	25
Benzo (a) anthracene	6.380345	7.104998	11.4	25
Chrysene	6.415828	7.10565	10.8	25
Benzo (b) fluoranthene	6.802826	6.20725	-8.8	25
Benzo (k) fluoranthene	7.102797	7.207444	1.5	25

Analyte(s)	Average RF	CCRF	% D	Limit
Batch S201004				
Calibration Check (S201004-CCV2)				
Benzo (a) pyrene	6.572576	6.363524	-3.2	25
Indeno (1,2,3-cd) pyrene	7.596038	6.46813	-14.8	25
Dibenzo (a,h) anthracene	6.447403	5.517723	-14.4	25
Benzo (g,h,i) perylene	6.549651	5.646952	-13.8	25
n-Nonane (C9)	192121.7	175056.1	-6.8	30
n-Decane	191928.6	174473.6	-7.0	25
n-Dodecane	191715.2	173437.6	-9.5	25
n-Tetradecane	188577.1	173511.1	-8.0	25
n-Hexadecane	183494.2	174219.5	-5.1	25
n-Octadecane	177254.9	174820.1	-1.4	25
n-Nonadecane	173919.5	172501.8	-0.8	25
n-Eicosane	168388.3	171285.1	1.7	25
n-Docosane	161705.9	176669.2	9.3	25
n-Tetracosane	156462.2	169229.6	8.2	25
n-Hexacosane	154857.4	175069.7	13.1	25
n-Octacosane	150049.8	181197.4	20.8	25
n-Triacontane	154838.9	181722.6	17.4	25
n-Hexatriacontane	147651	180225.2	22.1	25
Batch S201069				
Calibration Check (S201069-CCV1)				
C9-C18 Aliphatic Hydrocarbons	9.118459E+07	7.928223E+07	-1.3	25
C19-C36 Aliphatic Hydrocarbons	1.849312E+08	9.895898E+07	-0.5	25
Naphthalene	8.471081	8.556491	1.0	25
2-Methylnaphthalene	5.879773	6.153105	4.6	25
Acenaphthylene	8.531765	8.80474	3.2	25
Acenaphthene	5.227441	5.302542	1.4	25
Fluorene	6.03715	6.178957	2.3	25
Phenanthrene	8.197534	8.813345	7.5	25
Anthracene	8.249885	8.809542	6.8	25
Fluoranthene	8.061049	9.056823	12.4	25
Pyrene	8.497326	9.335618	9.9	25
Benzo (a) anthracene	7.120424	8.07399	13.4	25
Chrysene	7.569093	8.344477	10.2	25
Benzo (b) fluoranthene	6.368326	6.655357	4.5	25
Benzo (k) fluoranthene	7.018999	7.918505	12.8	25
Benzo (a) pyrene	6.236331	6.851786	9.9	25
Indeno (1,2,3-cd) pyrene	6.523927	6.932332	6.3	25
Dibenzo (a,h) anthracene	5.351167	5.690477	6.3	25
Benzo (g,h,i) perylene	5.398384	5.568779	3.2	25
n-Decane	81115.74	73904.53	-8.9	25
n-Dodecane	81469.5	77225.88	-5.2	25
n-Hexadecane	77352.32	76406.04	-1.2	25
n-Octadecane	73365.4	75447.18	2.8	25
n-Nonane (C9)	80936.92	72793.44	-10.1	30
n-Tetradecane	79773.24	77893.27	-2.4	25
n-Eicosane	69202.73	74121.78	7.1	25
n-Nonadecane	71347.9	75164.11	5.3	25
n-Docosane	67259.44	74652.57	11.0	25
n-Octacosane	66464.01	78412.84	18.0	25
n-Tetracosane	66939.26	76226.87	13.9	25
n-Hexacosane	67304.78	78415.81	16.5	25

Analyte(s)	Average RF	CCRF	% D	Limit
Batch S201069				
Calibration Check (S201069-CCV1)				
n-Triacontane	69836.1	83539.3	19.6	25
n-Hexatriacontane	73538.18	87239.66	18.6	25
Calibration Check (S201069-CCV2)				
C9-C18 Aliphatic Hydrocarbons	9.118459E+07	9.021165E+07	13.2	25
C19-C36 Aliphatic Hydrocarbons	1.849312E+08	1.012053E+08	2.8	25
Naphthalene	8.471081	8.246285	-2.7	25
2-Methylnaphthalene	5.879773	5.978144	1.7	25
Acenaphthylene	8.531765	8.818149	3.4	25
Acenaphthene	5.227441	5.230128	0.05	25
Fluorene	6.03715	6.056521	0.3	25
Phenanthrene	8.197534	8.581238	4.7	25
Anthracene	8.249885	8.959071	8.6	25
Fluoranthene	8.061049	8.925693	10.7	25
Pyrene	8.497326	9.54368	12.3	25
Benzo (a) anthracene	7.120424	8.074487	13.4	25
Chrysene	7.569093	8.544672	12.9	25
Benzo (b) fluoranthene	6.368326	7.475894	17.4	25
Benzo (k) fluoranthene	7.018999	7.731368	10.1	25
Benzo (a) pyrene	6.236331	6.886899	10.4	25
Indeno (1,2,3-cd) pyrene	6.523927	7.167284	9.9	25
Dibenzo (a,h) anthracene	5.351167	5.906193	10.4	25
Benzo (g,h,i) perylene	5.398384	5.887923	9.1	25
n-Decane	81115.74	86031.03	6.1	25
n-Dodecane	81469.5	87461.59	7.4	25
n-Hexadecane	77352.32	84528.81	9.3	25
n-Nonane (C9)	80936.92	85043.73	5.1	30
n-Octadecane	73365.4	82819.84	12.9	25
n-Tetradecane	79773.24	86780.66	8.8	25
n-Eicosane	69202.73	80621.52	16.5	25
n-Docosane	67259.44	80407.64	19.5	25
n-Nonadecane	71347.9	82006.46	14.9	25
n-Octacosane	66464.01	80491.07	21.1	25
n-Tetracosane	66939.26	80797.2	20.7	25
n-Hexacosane	67304.78	81658.96	21.3	25
n-Triacontane	69836.1	84532.33	21.0	25
n-Hexatriacontane	73538.18	82785.9	12.6	25

Analyte(s)	Average RF	CCRF	% D	Limit
Batch S200957				
Calibration Check (S200957-CCV1)				
Benzene	125338.6	114661.6	-8.5	25
Ethylbenzene	69695.54	64285.56	-7.8	25
Methyl tert-butyl ether	67938.23	60667.82	-10.7	25
Naphthalene	64783.47	61184.68	-5.6	25
Toluene	89233.04	83552.56	-6.4	25
m,p-Xylene	77150.11	70992.93	-8.0	25
o-Xylene	64126.76	58774.98	-8.3	25
2-Methylpentane	49629.85	50612.2	2.0	25
n-Nonane	31577.51	33345.88	5.6	30
n-Pentane	45333.86	43645.58	-3.7	25
1,2,4-Trimethylbenzene	65528.51	59047.9	-9.9	25
2,2,4-Trimethylpentane	45933.74	48820.16	6.3	25
n-Butylcyclohexane	31621.02	32921.02	4.1	25
n-Decane	27201.97	30436.9	11.9	25
Calibration Check (S200957-CCV2)				
Benzene	125338.6	120448.6	-3.9	25
Ethylbenzene	69695.54	68442.1	-1.8	25
Methyl tert-butyl ether	67938.23	65947.32	-2.9	25
Naphthalene	64783.47	68443.36	5.6	25
Toluene	89233.04	88298.54	-1.0	25
m,p-Xylene	77150.11	75639.73	-2.0	25
o-Xylene	64126.76	63631.38	-0.8	25
2-Methylpentane	49629.85	46379.9	-6.5	25
n-Nonane	31577.51	32331.48	2.4	30
n-Pentane	45333.86	40720.18	-10.2	25
1,2,4-Trimethylbenzene	65528.51	63147.42	-3.6	25
2,2,4-Trimethylpentane	45933.74	46104.5	0.4	25
n-Butylcyclohexane	31621.02	31486.16	-0.4	25
n-Decane	27201.97	24102.32	-11.4	25

Notes and Definitions

E	The concentration indicated for this analyte is an estimated value. This value is considered an estimate (CLP E-flag).
GS1	Sample dilution required for high concentration of target analytes to be within the instrument calibration range.
QM4X	The spike recovery was outside of QC acceptance limits for the MS, MSD and/or PS due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
QM7	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
QM9	The spike recovery for this QC sample is outside the established control limits. The sample results for the QC batch were accepted based on LCS/LCSD or SRM recoveries within the control limits.
QR2	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
QR5	RPD out of acceptance range.
R01	The Reporting Limit has been raised to account for matrix interference.
VC10	The VOC preserved soil sample is not within the 1:1 weight to volume ratio as recommended by SW846 methods 5030 and 5035 but may be within the 1:1 volume to volume ratio. This variance may affect the final reporting limit.
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference

A Matrix Spike and Matrix Spike Duplicate (MS/MSD) for MADEP EPH CAM may not have been analyzed with the samples in this work order. According to the method these spikes are performed only when requested by the client. If requested the spike recoveries are included in the batch QC data.

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

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

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

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

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

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

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

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

Validated by:
June O'Connor
Kimberly Wisk
Nicole Leja

SB42846 CK

SPECTRUM ANALYTICAL, INC.
Featuring
HANNIBAL TECHNOLOGY

CHAIN OF CUSTODY RECORD

Page 1 of 2

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

Report To: OTO 293 Bridge St Springfield MA

Telephone #: 413-788-6222

Project Mgr. Val Tillinghast

Invoice To: OTO

P.O. No.: _____ RQN: _____

Project No.: 1753-03-01

Site Name: Lunt

Location: _____ State: MA

Sampler(s): Brin Waverka

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

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

G=Grab C=Composite

List preservative code below:

QA/QC Reporting Notes:
(check as needed)

Containers:

Analyses:

Lab Id:	Sample Id:	Date:	Time:	Type	Matrix	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	EPH iced	VPH 7	VOC-8260 7 4x	PCBs (soil only) iced	metals TAL 23 iced
SB42846 01	LS-6 4-6'	1/11/12	1045		S		1			X				
02	LS-7 2-4'	1/11/12	1110				1			X				
03	LS-8 4-6'	1/11/12	1145				1			X				
04	LS-9 5-6'	1/11/12	1230			1	1			X	X			
05	LS-11 4-6'	1/11/12	1255				1			X				
06	LS-14 0-2'	1/11/12	1415				1						X	X
07	LS-14 6-8'	1/11/12	1430			3	1			X	X	X		
08	LS-15 0-2'	1/11/12	1445				1						X	X
09	LS-15 4-6'	1/11/12	1455				1			X				
10	LS-17 6-8'	1/11/12	1528		↓	3	1			X	X	X		

Relinquished by:	Received by:	Date:	Time:	Temp°C
Valerie Tillinghast	Tim Upton	1-16-12	825	
Tim Upton	Amy K	1-16-12	14:50	.8

☐ EDD Format _____

☐ E-mail to _____

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

☒ Provide MA DEP MCP CAM Report
☐ Provide CT DPH RCP Report

QA/QC Reporting Level
☒ Standard ☐ No QC
☐ Other _____

State specific reporting standards: _____

S34516 CC

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

CHAIN OF CUSTODY RECORD

Page 2 of 2

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

Report To: OTO
293 Bridge St
Springfield

Telephone #: 413 788-6222
Project Mgr. Val Tillinghast

Invoice To: OTO

P.O. No.: _____ RQN: _____

Project No.: 1753-03-01
Site Name: Lunt
Location: _____ State: MA
Sampler(s): Brin Waranda

1=Na_2S2O_3 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid 7=CH_3OH
8= $NaHSO_4$ 9= _____ 10= _____ 11= _____

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

G=Grab C=Composite

Lab Id:	Sample Id:	Date:	Time:	Type	Matrix	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	List preservative code below:									Analyses:								
										iced	7	7	4	iced					EPH	VPH	VOCs/8260	PCBs (NOT GOOD)	Metals-TAL 23			
S34254611	LS-19 7-9'	1/12/12	1300		S	3	1												X	X	X						
L 12	LS-20 1-3'	↓	1325		S	2	1														X		X				

QA/QC Reporting Notes:
(check as needed)

- [x] Provide MA DEP MCP CAM Report
- [ ] Provide CT DPH RCP Report

QA/QC Reporting Level
- [x] Standard
- [ ] No QC
- [ ] Other _____

State specific reporting standards:
_____

Relinquished by:	Received by:	Date:	Time:	Temp°C
Valerie Kelley-Gast	Tanya K	1-16-12	825	
Tanya K		1-16-12	14:50	8

- [ ] EDD Format _____
- [ ] E-mail to _____

- [ ] Ambient [ ] Iced [x] Refrigerated [ ] Fridge temp ___ °C [ ] Freezer temp ___ °C

SDG 12516 CK

SPECTRUM ANALYTICAL, INC.
Featuring
HANNIBAL TECHNOLOGY

CHAIN OF CUSTODY RECORD

Page 2 of 2

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

Report To: OTO, 293 Bridge St, Springfield
Telephone #: 413 788-6222
Project Mgr. Val Tillinghast

Invoice To: OTO
P.O. No.: _____ RQN: _____

Project No.: 1753-03-01
Site Name: Lunt
Location: _____ State: MA
Sampler(s): Brin Waranda

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

List preservative code below: 7 7 7 2 2

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

G=Grab C=Composite

Lab Id:	Sample Id:	Date:	Time:	Type	Matrix	Containers: # of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Analyses: EPH	VPH	VOCs 8260	PCBs (Soxhlet)	Metals-TAL 23	TCLP Pb
SDG 12516 #11	LS-19 7-9'	1/12/12	1300		S	3	1			X	X	X			
12	LS-20 1-3'	↓	1325		S	2	1					X		X	✓

QA/QC Reporting Notes: (check as needed)
- [x] Provide MA DEP MCP CAM Report
- [ ] Provide CT DPH RCP Report

QA/QC Reporting Level
- [x] Standard
- [ ] No QC
- [ ] Other _____

State specific reporting standards: _____

Added per email 3/9/12 gp

Relinquished by:	Received by:	Date:	Time:	Temp°C
[signature]	[signature]	1-16-12	825	
[signature]	[signature]	1-16-12	14:50	8

- [ ] EDD Format _____
- [ ] E-mail to _____

- [ ] Ambient [ ] Iced [x] Refrigerated [ ] Fridge temp ___°C [ ] Freezer temp ___°C

Report Date:
16-Apr-12 11:53

☐ Final Report
☐ Re-Issued Report
☑ Revised Report

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

Laboratory Report

O'Reilly, Talbot & Okun
293 Bridge Street; Suite 500
Springfield, MA 01103
Attn: Val Tillinghast

Project: Lunt Silversmith-Greenfield, MA
Project #: 1753-03-01

Laboratory ID	Client Sample ID	Container	Matrix	Date Sampled	Date Received
SB43107-01	SG-4	Summa canister 3.2 liter	Soil Gas	26-Jan-12 16:05	30-Jan-12 10:57
SB43107-02	SG-9	Summa canister 3.2 liter	Soil Gas	26-Jan-12 16:45	30-Jan-12 10:57
SB43107-03	SG-10	Summa canister 3.2 liter	Soil Gas	27-Jan-12 09:10	30-Jan-12 10:57
SB43107-04	SG-11	Summa canister 3.2 liter	Soil Gas	27-Jan-12 09:44	30-Jan-12 10:57
SB43107-05	IA-1	Summa canister 6 liter	Air	26-Jan-12 12:05	30-Jan-12 10:57
SB43107-06	IA-2	Summa canister 6 liter	Air	26-Jan-12 12:10	30-Jan-12 10:57
SB43107-07	IA-3	Summa canister 6 liter	Air	26-Jan-12 12:17	30-Jan-12 10:57
SB43107-08	IA-4	Summa canister 6 liter	Air	26-Jan-12 10:23	30-Jan-12 10:57

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

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

Authorized by:

Nicole Leja
Laboratory Director

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

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

MassDEP Analytical Protocol Certification Form

Laboratory Name: Spectrum Analytical, Inc.	**Project #:** 1753-03-01
Project Location: Lunt Silversmith-Greenfield, MA	**RTN:**
This form provides certifications for the following data set:	SB43107-01 through SB43107-08
Matrices: Air Soil Gas	

CAM Protocol

8260 VOC CAM II A	7470/7471 Hg CAM III B	MassDEP VPH CAM IV A	8081 Pesticides CAM V B	7196 Hex Cr CAM VI B	MassDEP APH CAM IX A
8270 SVOC CAM II B	7010 Metals CAM III C	MassDEP EPH CAM IV B	8151 Herbicides CAM V C	8330 Explosives CAM VIII A	✓ TO-15 VOC CAM IX B
6010 Metals CAM III A	6020 Metals CAM III D	8082 PCB CAM V A	9014 Total Cyanide/PAC CAM VI A	6860 Perchlorate CAM VIII B	

Affirmative responses to questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain of Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	✓ Yes	No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	✓ Yes	No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	✓ Yes	No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	✓ Yes	No
E	a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes ✓ Yes	No No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to questions A through E)?	✓ Yes	No

Responses to questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	Yes	✓ No

<u>Data User Note:</u> Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.

H	Were all QC performance standards specified in the CAM protocol(s) achieved?	✓ Yes	No
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	✓ Yes	No

All negative responses are addressed in a case narrative on the cover page of this report.

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

Nicole Leja
Laboratory Director
Date: 4/16/2012

CASE NARRATIVE:

Samples are received and the pressure is recorded from the gauge on the canister. If a canister does not have a gauge, a vacuum gauge is attached to the valve and pressure is recorded. If the canister is below -10 psig, the can must be pressurized to 0 psig. Tedlar bags do not have the pressure recorded. The can pressure can be located within this report in the sample header information.

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

MADEP has published a list of analytical methods (CAM) which provides a series of recommended protocols for the acquisition, analysis and reporting of analytical data in support of MCP decisions. "Presumptive Certainty" can be established only for those methods published by the MADEP in the MCP CAM. The compounds and/or elements reported were specifically requested by the client on the Chain of Custody and in some cases may not include the full analyte list as defined in the method.

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

EPA TO-15

Calibration:

Calibration 1201046

The %RSD for analyte Carbon disulfide is 35.8%. The calculated %RSD for the RRF for each compound in the calibration must be less than 30% with at most two exceptions up to a limit of 40%. This affected the following samples:

IA-1
IA-2
IA-3
IA-4
SG-10
SG-11
SG-4
SG-9

Samples:

SB43107-01 *SG-4*

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

SB43107-02 *SG-9*

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

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SG-4 SB43107-01	1753-03-01	Soil Gas	26-Jan-12 16:05	30-Jan-12

Air Quality Analyses

Volatile Organics in Air — ppbv — Prepared 06-Feb-12 — Dilution: 59.5 — GS1 — Can pressure: +1 — Can ID: 0164

CAS No.	Analyte(s)	Result/Units	*RDL	Result ug/m³	*RDL	Flag	Method Ref.	Analyzed	Analyst	Batch	Cert.
115-07-1	Propene	< 12.7	29.8	< 21.86	51.29	U	EPA TO-15	06-Feb-12	KRL	1202863	
75-71-8	Dichlorodifluoromethane (Freon12)	< 19.6	29.8	< 96.92	147.35	U	"	"	"	"	
74-87-3	Chloromethane	< 22.3	29.8	< 46.06	61.55	U	"	"	"	"	
76-14-2	1,2-Dichlorotetrafluoroethane (Freon 114)	< 21.7	29.8	< 151.68	208.30	U	"	"	"	"	
75-01-4	Vinyl chloride	< 23.4	29.8	< 59.82	76.18	U	"	"	"	"	
106-99-0	1,3-Butadiene	< 22.4	29.8	< 49.47	65.82	U	"	"	"	"	
74-83-9	Bromomethane	< 17.7	29.8	< 68.70	115.67	U	"	"	"	"	
75-00-3	Chloroethane	< 26.7	29.8	< 70.44	78.61	U	"	"	"	"	
67-64-1	Acetone	164	29.8	389.71	70.81		"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 26.6	29.8	< 149.48	167.47	U	"	"	"	"	
64-17-5	Ethanol	< 24.0	29.8	< 45.25	56.19	U	"	"	"	"	
107-13-1	Acrylonitrile	< 22.8	29.8	< 49.42	64.60	U	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 22.2	29.8	< 88.07	118.22	U	"	"	"	"	
75-09-2	Methylene chloride	< 26.4	29.8	< 91.67	103.48	U	"	"	"	"	
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 22.0	29.8	< 168.62	228.41	U	"	"	"	"	
75-15-0	Carbon disulfide	< 22.1	29.8	< 68.79	92.75	U	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 12.7	29.8	< 50.36	118.16	U	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 11.9	29.8	< 48.18	120.66	U	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 10.1	29.8	< 36.43	107.50	U	"	"	"	"	
67-63-0	Isopropyl alcohol	23.8	29.8	58.40	73.13	J	"	"	"	"	
78-93-3	2-Butanone (MEK)	< 21.3	29.8	< 62.81	87.88	U	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	< 9.70	29.8	< 38.46	118.16	U	"	"	"	"	
110-54-3	Hexane	< 12.9	29.8	< 45.48	105.06	U	"	"	"	"	
141-78-6	Ethyl acetate	< 16.4	29.8	< 59.09	107.38	U	"	"	"	"	
67-66-3	Chloroform	< 16.9	29.8	< 82.25	145.04	U	"	"	"	"	
109-99-9	Tetrahydrofuran	< 13.1	29.8	< 38.63	87.88	U	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 15.1	29.8	< 61.14	120.66	U	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	51.8	29.8	282.62	162.59		"	"	"	"	
71-43-2	Benzene	< 9.58	29.8	< 30.56	95.07	U	"	"	"	"	
56-23-5	Carbon tetrachloride	< 12.4	29.8	< 78.00	187.45	U	"	"	"	"	
110-82-7	Cyclohexane	< 10.4	29.8	< 35.80	102.58	U	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 11.7	29.8	< 54.07	137.73	U	"	"	"	"	
75-27-4	Bromodichloromethane	< 12.6	29.8	< 84.41	199.64	U	"	"	"	"	
79-01-6	Trichloroethene	3730	29.8	20045.89	160.15		"	"	"	"	
123-91-1	1,4-Dioxane	< 15.8	29.8	< 56.87	107.26	U	"	"	"	"	
142-82-5	n-Heptane	< 10.9	29.8	< 44.67	122.13	U	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 14.9	29.8	< 61.06	122.13	U	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 10.1	29.8	< 45.85	135.29	U	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 8.87	29.8	< 40.27	135.29	U	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 15.6	29.8	< 85.11	162.59	U	"	"	"	"	
108-88-3	Toluene	< 11.2	29.8	< 42.14	112.13	U	"	"	"	"	
591-78-6	2-Hexanone (MBK)	< 9.16	29.8	< 37.54	122.13	U	"	"	"	"	
124-48-1	Dibromochloromethane	< 10.9	29.8	< 92.86	253.88	U	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SG-4	1753-03-01	Soil Gas	26-Jan-12 16:05	30-Jan-12
SB43107-01				

CAS No.	Analyte(s)	Result/Units	*RDL	Result ug/m³	*RDL	Flag	Method Ref.	Analyzed	Analyst	Batch	Cert.
Air Quality Analyses											
Volatile Organics in Air		ppbv	Prepared 06-Feb-12 Dilution: 59.5			GS1	Can pressure: +1 Can ID: 0164				
106-93-4	1,2-Dibromoethane (EDB)	< 18.1	29.8	< 139.10	229.02	U	EPA TO-15	06-Feb-12	KRL	1202863	
127-18-4	Tetrachloroethene	< 12.0	29.8	< 81.37	202.08	U	"	"	"	"	
108-90-7	Chlorobenzene	< 17.3	29.8	< 79.67	137.24	U	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 13.5	29.8	< 92.76	204.76	U	"	"	"	"	
100-41-4	Ethylbenzene	< 11.6	29.8	< 50.29	129.19	U	"	"	"	"	
179601-23-1	m,p-Xylene	< 29.4	29.8	< 127.46	129.19	U	"	"	"	"	
75-25-2	Bromoform	< 13.2	29.8	< 136.43	307.99	U	"	"	"	"	
100-42-5	Styrene	< 14.7	29.8	< 62.53	126.76	U	"	"	"	"	
95-47-6	o-Xylene	< 18.1	29.8	< 78.47	129.19	U	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 16.2	29.8	< 111.25	204.64	U	"	"	"	"	
98-82-8	Isopropylbenzene	< 15.1	29.8	< 74.23	146.50	U	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 17.4	29.8	< 85.54	146.50	U	"	"	"	"	
622-96-8	4-Ethyltoluene	< 14.1	29.8	< 69.32	146.50	U	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 9.94	29.8	< 48.87	146.50	U	"	"	"	"	
91-20-3	Naphthalene	< 10.3	29.8	< 53.92	156.01	U	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 16.2	29.8	< 97.40	179.17	U	"	"	"	"	
100-44-7	Benzyl chloride	< 10.6	29.8	< 54.63	153.57	U	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 12.8	29.8	< 76.96	179.17	U	"	"	"	"	
135-98-8	sec-Butylbenzene	< 14.5	29.8	< 79.59	163.56	U	"	"	"	"	
99-87-6	4-Isopropyltoluene	< 14.2	29.8	< 76.20	159.91	U	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 13.8	29.8	< 82.97	179.17	U	"	"	"	"	
104-51-8	n-Butylbenzene	< 14.5	29.8	< 79.59	163.56	U	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 10.9	29.8	< 80.91	221.21	U	"	"	"	"	
87-68-3	Hexachlorobutadiene	< 13.9	29.8	< 148.21	317.74	U	"	"	"	"	
Surrogate recoveries:											
460-00-4	*4-Bromofluorobenzene*	*101*		*70-130 %*			"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SG-9	1753-03-01	Soil Gas	26-Jan-12 16:45	30-Jan-12
SB43107-02				

Air Quality Analyses

Volatile Organics in Air — ppbv — Prepared 06-Feb-12 — Dilution: 10 — GS1 — Can pressure: +1 — Can ID: 0134

CAS No.	Analyte(s)	Result/Units	*RDL	Result ug/m³	*RDL	Flag	Method Ref.	Analyzed	Analyst	Batch	Cert.
115-07-1	Propene	< 2.13	5.00	< 3.67	8.61	U	EPA TO-15	06-Feb-12	KRL	1202863	
75-71-8	Dichlorodifluoromethane (Freon12)	< 3.30	5.00	< 16.32	24.72	U	"	"	"	"	
74-87-3	Chloromethane	< 3.75	5.00	< 7.75	10.33	U	"	"	"	"	
76-14-2	1,2-Dichlorotetrafluoroethane (Freon 114)	< 3.65	5.00	< 25.51	34.95	U	"	"	"	"	
75-01-4	Vinyl chloride	< 3.94	5.00	< 10.07	12.78	U	"	"	"	"	
106-99-0	1,3-Butadiene	< 3.77	5.00	< 8.33	11.04	U	"	"	"	"	
74-83-9	Bromomethane	< 2.98	5.00	< 11.57	19.41	U	"	"	"	"	
75-00-3	Chloroethane	< 4.48	5.00	< 11.82	13.19	U	"	"	"	"	
67-64-1	Acetone	**51.1**	5.00	**121.43**	11.88		"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 4.47	5.00	< 25.12	28.10	U	"	"	"	"	
64-17-5	Ethanol	< 4.04	5.00	< 7.62	9.43	U	"	"	"	"	
107-13-1	Acrylonitrile	< 3.83	5.00	< 8.30	10.84	U	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 3.73	5.00	< 14.80	19.84	U	"	"	"	"	
75-09-2	Methylene chloride	< 4.43	5.00	< 15.38	17.36	U	"	"	"	"	
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 3.69	5.00	< 28.28	38.32	U	"	"	"	"	
75-15-0	Carbon disulfide	< 3.72	5.00	< 11.58	15.56	U	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 2.13	5.00	< 8.45	19.83	U	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 2.00	5.00	< 8.10	20.25	U	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 1.69	5.00	< 6.10	18.04	U	"	"	"	"	
67-63-0	Isopropyl alcohol	**5.20**	5.00	**12.76**	12.27		"	"	"	"	
78-93-3	2-Butanone (MEK)	< 3.58	5.00	< 10.56	14.74	U	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	**3.10**	5.00	**12.29**	19.83	J	"	"	"	"	
110-54-3	Hexane	< 2.17	5.00	< 7.65	17.63	U	"	"	"	"	
141-78-6	Ethyl acetate	< 2.75	5.00	< 9.91	18.02	U	"	"	"	"	
67-66-3	Chloroform	< 2.84	5.00	< 13.82	24.34	U	"	"	"	"	
109-99-9	Tetrahydrofuran	< 2.20	5.00	< 6.49	14.74	U	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 2.54	5.00	< 10.28	20.25	U	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	**7.50**	5.00	**40.92**	27.28		"	"	"	"	
71-43-2	Benzene	< 1.61	5.00	< 5.14	15.95	U	"	"	"	"	
56-23-5	Carbon tetrachloride	< 2.08	5.00	< 13.08	31.45	U	"	"	"	"	
110-82-7	Cyclohexane	< 1.75	5.00	< 6.02	17.21	U	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 1.96	5.00	< 9.06	23.11	U	"	"	"	"	
75-27-4	Bromodichloromethane	< 2.11	5.00	< 14.14	33.50	U	"	"	"	"	
79-01-6	Trichloroethene	**765**	5.00	**4111.29**	26.87		"	"	"	"	
123-91-1	1,4-Dioxane	< 2.65	5.00	< 9.54	18.00	U	"	"	"	"	
142-82-5	n-Heptane	< 1.83	5.00	< 7.50	20.49	U	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 2.50	5.00	< 10.25	20.49	U	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 1.70	5.00	< 7.72	22.70	U	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 1.49	5.00	< 6.76	22.70	U	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 2.62	5.00	< 14.29	27.28	U	"	"	"	"	
108-88-3	Toluene	< 1.89	5.00	< 7.11	18.81	U	"	"	"	"	
591-78-6	2-Hexanone (MBK)	< 1.54	5.00	< 6.31	20.49	U	"	"	"	"	
124-48-1	Dibromochloromethane	< 1.84	5.00	< 15.68	42.60	U	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SG-9 SB43107-02	1753-03-01	Soil Gas	26-Jan-12 16:45	30-Jan-12

Air Quality Analyses

Volatile Organics in Air — ppbv — Prepared 06-Feb-12, Dilution: 10 — GS1 — Can pressure: +1, Can ID: 0134

CAS No.	Analyte(s)	Result/Units	*RDL	Result ug/m³	*RDL	Flag	Method Ref.	Analyzed	Analyst	Batch	Cert.
106-93-4	1,2-Dibromoethane (EDB)	< 3.05	5.00	< 23.44	38.43	U	EPA TO-15	06-Feb-12	KRL	1202863	
127-18-4	Tetrachloroethene	**3.00**	5.00	**20.34**	33.91	J	"	"	"	"	
108-90-7	Chlorobenzene	< 2.90	5.00	< 13.36	23.03	U	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 2.27	5.00	< 15.60	34.36	U	"	"	"	"	
100-41-4	Ethylbenzene	< 1.95	5.00	< 8.45	21.68	U	"	"	"	"	
179601-23-1	m,p-Xylene	< 4.94	5.00	< 21.42	21.68	U	"	"	"	"	
75-25-2	Bromoform	< 2.22	5.00	< 22.94	51.68	U	"	"	"	"	
100-42-5	Styrene	< 2.47	5.00	< 10.51	21.27	U	"	"	"	"	
95-47-6	o-Xylene	< 3.05	5.00	< 13.22	21.68	U	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 2.73	5.00	< 18.75	34.34	U	"	"	"	"	
98-82-8	Isopropylbenzene	< 2.53	5.00	< 12.44	24.58	U	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	**3.00**	5.00	**14.75**	24.58	J	"	"	"	"	
622-96-8	4-Ethyltoluene	**2.60**	5.00	**12.78**	24.58	J	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	**7.10**	5.00	**34.90**	24.58		"	"	"	"	
91-20-3	Naphthalene	< 1.73	5.00	< 9.06	26.18	U	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 2.73	5.00	< 16.41	30.06	U	"	"	"	"	
100-44-7	Benzyl chloride	< 1.78	5.00	< 9.17	25.77	U	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 2.15	5.00	< 12.93	30.06	U	"	"	"	"	
135-98-8	sec-Butylbenzene	< 2.43	5.00	< 13.34	27.44	U	"	"	"	"	
99-87-6	4-Isopropyltoluene	< 2.39	5.00	< 12.82	26.83	U	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 2.32	5.00	< 13.95	30.06	U	"	"	"	"	
104-51-8	n-Butylbenzene	< 2.44	5.00	< 13.39	27.44	U	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 1.84	5.00	< 13.66	37.12	U	"	"	"	"	
87-68-3	Hexachlorobutadiene	< 2.34	5.00	< 24.95	53.31	U	"	"	"	"	

Surrogate recoveries:

460-00-4	*4-Bromofluorobenzene*	*100*		*70-130 %*			"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SG-10	1753-03-01	Soil Gas	27-Jan-12 09:10	30-Jan-12
SB43107-03				

Air Quality Analyses

Volatile Organics in Air — ppbv — Prepared 06-Feb-12 — Dilution: 1 — Can pressure: 0 — Can ID: 1078

CAS No.	Analyte(s)	Result/Units	*RDL	Result ug/m³	*RDL	Flag	Method Ref.	Analyzed	Analyst	Batch	Cert.
115-07-1	Propene	< 0.213	0.500	< 0.37	0.86	U	EPA TO-15	06-Feb-12	KRL	1202863	
75-71-8	Dichlorodifluoromethane (Freon12)	**0.610**	0.500	**3.02**	2.47		"	"	"	"	
74-87-3	Chloromethane	< 0.375	0.500	< 0.77	1.03	U	"	"	"	"	
76-14-2	1,2-Dichlorotetrafluoroethane (Freon 114)	< 0.365	0.500	< 2.55	3.49	U	"	"	"	"	
75-01-4	Vinyl chloride	< 0.394	0.500	< 1.01	1.28	U	"	"	"	"	
106-99-0	1,3-Butadiene	< 0.377	0.500	< 0.83	1.10	U	"	"	"	"	
74-83-9	Bromomethane	< 0.298	0.500	< 1.16	1.94	U	"	"	"	"	
75-00-3	Chloroethane	< 0.448	0.500	< 1.18	1.32	U	"	"	"	"	
67-64-1	Acetone	**17.0**	0.500	**40.40**	1.19		"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	**2.89**	0.500	**16.24**	2.81		"	"	"	"	
64-17-5	Ethanol	**7.91**	0.500	**14.91**	0.94		"	"	"	"	
107-13-1	Acrylonitrile	< 0.383	0.500	< 0.83	1.08	U	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 0.373	0.500	< 1.48	1.98	U	"	"	"	"	
75-09-2	Methylene chloride	< 0.443	0.500	< 1.54	1.74	U	"	"	"	"	
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 0.369	0.500	< 2.83	3.83	U	"	"	"	"	
75-15-0	Carbon disulfide	**0.390**	0.500	**1.21**	1.56	J	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 0.213	0.500	< 0.84	1.98	U	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 0.200	0.500	< 0.81	2.02	U	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 0.169	0.500	< 0.61	1.80	U	"	"	"	"	
67-63-0	Isopropyl alcohol	**11.1**	0.500	**27.24**	1.23		"	"	"	"	
78-93-3	2-Butanone (MEK)	**0.700**	0.500	**2.06**	1.47		"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	< 0.163	0.500	< 0.65	1.98	U	"	"	"	"	
110-54-3	Hexane	**0.300**	0.500	**1.06**	1.76	J	"	"	"	"	
141-78-6	Ethyl acetate	< 0.275	0.500	< 0.99	1.80	U	"	"	"	"	
67-66-3	Chloroform	< 0.284	0.500	< 1.38	2.43	U	"	"	"	"	
109-99-9	Tetrahydrofuran	< 0.220	0.500	< 0.65	1.47	U	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 0.254	0.500	< 1.03	2.02	U	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	**1.44**	0.500	**7.86**	2.73		"	"	"	"	
71-43-2	Benzene	**0.330**	0.500	**1.05**	1.60	J	"	"	"	"	
56-23-5	Carbon tetrachloride	< 0.208	0.500	< 1.31	3.15	U	"	"	"	"	
110-82-7	Cyclohexane	< 0.175	0.500	< 0.60	1.72	U	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 0.196	0.500	< 0.91	2.31	U	"	"	"	"	
75-27-4	Bromodichloromethane	< 0.211	0.500	< 1.41	3.35	U	"	"	"	"	
79-01-6	Trichloroethene	**32.4**	0.500	**174.13**	2.69		"	"	"	"	
123-91-1	1,4-Dioxane	< 0.265	0.500	< 0.95	1.80	U	"	"	"	"	
142-82-5	n-Heptane	< 0.183	0.500	< 0.75	2.05	U	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 0.250	0.500	< 1.02	2.05	U	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 0.170	0.500	< 0.77	2.27	U	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 0.149	0.500	< 0.68	2.27	U	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 0.262	0.500	< 1.43	2.73	U	"	"	"	"	
108-88-3	Toluene	**1.97**	0.500	**7.41**	1.88		"	"	"	"	
591-78-6	2-Hexanone (MBK)	< 0.154	0.500	< 0.63	2.05	U	"	"	"	"	
124-48-1	Dibromochloromethane	< 0.184	0.500	< 1.57	4.26	U	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SG-10 SB43107-03	1753-03-01	Soil Gas	27-Jan-12 09:10	30-Jan-12

Air Quality Analyses

Volatile Organics in Air — ppbv — Prepared 06-Feb-12 — Dilution: 1 — Can pressure: 0 — Can ID: 1078

CAS No.	Analyte(s)	Result/Units	*RDL	Result ug/m³	*RDL	Flag	Method Ref.	Analyzed	Analyst	Batch	Cert.
106-93-4	1,2-Dibromoethane (EDB)	< 0.305	0.500	< 2.34	3.84	U	EPA TO-15	06-Feb-12	KRL	1202863	
127-18-4	Tetrachloroethene	**0.810**	0.500	**5.49**	3.39		"	"	"	"	
108-90-7	Chlorobenzene	< 0.290	0.500	< 1.34	2.30	U	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 0.227	0.500	< 1.56	3.44	U	"	"	"	"	
100-41-4	Ethylbenzene	< 0.195	0.500	< 0.85	2.17	U	"	"	"	"	
179601-23-1	m,p-Xylene	**0.650**	0.500	**2.82**	2.17		"	"	"	"	
75-25-2	Bromoform	< 0.222	0.500	< 2.29	5.17	U	"	"	"	"	
100-42-5	Styrene	< 0.247	0.500	< 1.05	2.13	U	"	"	"	"	
95-47-6	o-Xylene	**0.360**	0.500	**1.56**	2.17	J	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 0.273	0.500	< 1.87	3.43	U	"	"	"	"	
98-82-8	Isopropylbenzene	< 0.253	0.500	< 1.24	2.46	U	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	**0.640**	0.500	**3.15**	2.46		"	"	"	"	
622-96-8	4-Ethyltoluene	**0.500**	0.500	**2.46**	2.46		"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	**1.64**	0.500	**8.06**	2.46		"	"	"	"	
91-20-3	Naphthalene	< 0.173	0.500	< 0.91	2.62	U	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 0.273	0.500	< 1.64	3.01	U	"	"	"	"	
100-44-7	Benzyl chloride	< 0.178	0.500	< 0.92	2.58	U	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 0.215	0.500	< 1.29	3.01	U	"	"	"	"	
135-98-8	sec-Butylbenzene	< 0.243	0.500	< 1.33	2.74	U	"	"	"	"	
99-87-6	4-Isopropyltoluene	< 0.239	0.500	< 1.28	2.68	U	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 0.232	0.500	< 1.39	3.01	U	"	"	"	"	
104-51-8	n-Butylbenzene	< 0.244	0.500	< 1.34	2.74	U	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 0.184	0.500	< 1.37	3.71	U	"	"	"	"	
87-68-3	Hexachlorobutadiene	< 0.234	0.500	< 2.50	5.33	U	"	"	"	"	
	Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*103*		*70-130 %*			"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SG-11 SB43107-04	1753-03-01	Soil Gas	27-Jan-12 09:44	30-Jan-12

Air Quality Analyses

Volatile Organics in Air — ppbv — Prepared 06-Feb-12, Dilution: 1 — Can pressure: +1, Can ID: 1078

CAS No.	Analyte(s)	Result/Units	*RDL	Result ug/m³	*RDL	Flag	Method Ref.	Analyzed	Analyst	Batch	Cert.
115-07-1	Propene	< 0.213	0.500	< 0.37	0.86	U	EPA TO-15	06-Feb-12	KRL	1202863	
75-71-8	Dichlorodifluoromethane (Freon12)	**0.560**	0.500	**2.77**	2.47		"	"	"	"	
74-87-3	Chloromethane	< 0.375	0.500	< 0.77	1.03	U	"	"	"	"	
76-14-2	1,2-Dichlorotetrafluoroethane (Freon 114)	< 0.365	0.500	< 2.55	3.49	U	"	"	"	"	
75-01-4	Vinyl chloride	< 0.394	0.500	< 1.01	1.28	U	"	"	"	"	
106-99-0	1,3-Butadiene	< 0.377	0.500	< 0.83	1.10	U	"	"	"	"	
74-83-9	Bromomethane	< 0.298	0.500	< 1.16	1.94	U	"	"	"	"	
75-00-3	Chloroethane	< 0.448	0.500	< 1.18	1.32	U	"	"	"	"	
67-64-1	Acetone	**23.1**	0.500	**54.89**	1.19		"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	**3.69**	0.500	**20.74**	2.81		"	"	"	"	
64-17-5	Ethanol	**5.03**	0.500	**9.48**	0.94		"	"	"	"	
107-13-1	Acrylonitrile	< 0.383	0.500	< 0.83	1.08	U	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 0.373	0.500	< 1.48	1.98	U	"	"	"	"	
75-09-2	Methylene chloride	< 0.443	0.500	< 1.54	1.74	U	"	"	"	"	
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 0.369	0.500	< 2.83	3.83	U	"	"	"	"	
75-15-0	Carbon disulfide	< 0.372	0.500	< 1.16	1.56	U	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 0.213	0.500	< 0.84	1.98	U	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 0.200	0.500	< 0.81	2.02	U	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 0.169	0.500	< 0.61	1.80	U	"	"	"	"	
67-63-0	Isopropyl alcohol	**3.94**	0.500	**9.67**	1.23		"	"	"	"	
78-93-3	2-Butanone (MEK)	**0.600**	0.500	**1.77**	1.47		"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	< 0.163	0.500	< 0.65	1.98	U	"	"	"	"	
110-54-3	Hexane	< 0.217	0.500	< 0.77	1.76	U	"	"	"	"	
141-78-6	Ethyl acetate	< 0.275	0.500	< 0.99	1.80	U	"	"	"	"	
67-66-3	Chloroform	< 0.284	0.500	< 1.38	2.43	U	"	"	"	"	
109-99-9	Tetrahydrofuran	< 0.220	0.500	< 0.65	1.47	U	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 0.254	0.500	< 1.03	2.02	U	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	**1.22**	0.500	**6.66**	2.73		"	"	"	"	
71-43-2	Benzene	**0.190**	0.500	**0.61**	1.60	J	"	"	"	"	
56-23-5	Carbon tetrachloride	< 0.208	0.500	< 1.31	3.15	U	"	"	"	"	
110-82-7	Cyclohexane	< 0.175	0.500	< 0.60	1.72	U	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 0.196	0.500	< 0.91	2.31	U	"	"	"	"	
75-27-4	Bromodichloromethane	< 0.211	0.500	< 1.41	3.35	U	"	"	"	"	
79-01-6	Trichloroethene	**12.2**	0.500	**65.57**	2.69		"	"	"	"	
123-91-1	1,4-Dioxane	< 0.265	0.500	< 0.95	1.80	U	"	"	"	"	
142-82-5	n-Heptane	< 0.183	0.500	< 0.75	2.05	U	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 0.250	0.500	< 1.02	2.05	U	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 0.170	0.500	< 0.77	2.27	U	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 0.149	0.500	< 0.68	2.27	U	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 0.262	0.500	< 1.43	2.73	U	"	"	"	"	
108-88-3	Toluene	**1.15**	0.500	**4.33**	1.88		"	"	"	"	
591-78-6	2-Hexanone (MBK)	< 0.154	0.500	< 0.63	2.05	U	"	"	"	"	
124-48-1	Dibromochloromethane	< 0.184	0.500	< 1.57	4.26	U	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SG-11 SB43107-04	1753-03-01	Soil Gas	27-Jan-12 09:44	30-Jan-12

Air Quality Analyses

Volatile Organics in Air — ppbv — Prepared 06-Feb-12, Dilution: 1 — Can pressure: +1, Can ID: 1078

CAS No.	Analyte(s)	Result/Units	*RDL	Result ug/m³	*RDL	Flag	Method Ref.	Analyzed	Analyst	Batch	Cert.
106-93-4	1,2-Dibromoethane (EDB)	< 0.305	0.500	< 2.34	3.84	U	EPA TO-15	06-Feb-12	KRL	1202863	
127-18-4	Tetrachloroethene	**0.510**	0.500	**3.46**	3.39		"	"	"	"	
108-90-7	Chlorobenzene	< 0.290	0.500	< 1.34	2.30	U	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 0.227	0.500	< 1.56	3.44	U	"	"	"	"	
100-41-4	Ethylbenzene	**0.240**	0.500	**1.04**	2.17	J	"	"	"	"	
179601-23-1	m,p-Xylene	**0.860**	0.500	**3.73**	2.17		"	"	"	"	
75-25-2	Bromoform	< 0.222	0.500	< 2.29	5.17	U	"	"	"	"	
100-42-5	Styrene	< 0.247	0.500	< 1.05	2.13	U	"	"	"	"	
95-47-6	o-Xylene	**0.410**	0.500	**1.78**	2.17	J	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 0.273	0.500	< 1.87	3.43	U	"	"	"	"	
98-82-8	Isopropylbenzene	< 0.253	0.500	< 1.24	2.46	U	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	**0.430**	0.500	**2.11**	2.46	J	"	"	"	"	
622-96-8	4-Ethyltoluene	**0.610**	0.500	**3.00**	2.46		"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	**0.790**	0.500	**3.88**	2.46		"	"	"	"	
91-20-3	Naphthalene	< 0.173	0.500	< 0.91	2.62	U	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 0.273	0.500	< 1.64	3.01	U	"	"	"	"	
100-44-7	Benzyl chloride	< 0.178	0.500	< 0.92	2.58	U	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 0.215	0.500	< 1.29	3.01	U	"	"	"	"	
135-98-8	sec-Butylbenzene	< 0.243	0.500	< 1.33	2.74	U	"	"	"	"	
99-87-6	4-Isopropyltoluene	< 0.239	0.500	< 1.28	2.68	U	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 0.232	0.500	< 1.39	3.01	U	"	"	"	"	
104-51-8	n-Butylbenzene	< 0.244	0.500	< 1.34	2.74	U	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 0.184	0.500	< 1.37	3.71	U	"	"	"	"	
87-68-3	Hexachlorobutadiene	< 0.234	0.500	< 2.50	5.33	U	"	"	"	"	

Surrogate recoveries:

460-00-4	*4-Bromofluorobenzene*	*103*		*70-130 %*			"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
IA-1	1753-03-01	Air	26-Jan-12 12:05	30-Jan-12
SB43107-05				

Air Quality Analyses

Volatile Organics in Air — ppbv — Prepared 01-Feb-12 — Dilution: 1 — Can pressure: +1 — Can ID: 4629

CAS No.	Analyte(s)	Result/Units	*RDL	Result ug/m³	*RDL	Flag	Method Ref.	Analyzed	Analyst	Batch	Cert.
115-07-1	Propene	< 0.213	0.500	< 0.37	0.86	U	EPA TO-15	01-Feb-12	KRL	1202527	
75-71-8	Dichlorodifluoromethane (Freon12)	**0.640**	0.500	**3.16**	2.47		"	"	"	"	
74-87-3	Chloromethane	< 0.375	0.500	< 0.77	1.03	U	"	"	"	"	
76-14-2	1,2-Dichlorotetrafluoroethane (Freon 114)	< 0.365	0.500	< 2.55	3.49	U	"	"	"	"	
75-01-4	Vinyl chloride	< 0.394	0.500	< 1.01	1.28	U	"	"	"	"	
106-99-0	1,3-Butadiene	< 0.377	0.500	< 0.83	1.10	U	"	"	"	"	
74-83-9	Bromomethane	< 0.298	0.500	< 1.16	1.94	U	"	"	"	"	
75-00-3	Chloroethane	< 0.448	0.500	< 1.18	1.32	U	"	"	"	"	
67-64-1	Acetone	**3.44**	0.500	**8.17**	1.19		"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	**2.28**	0.500	**12.81**	2.81		"	"	"	"	
64-17-5	Ethanol	**5.01**	0.500	**9.45**	0.94		"	"	"	"	
107-13-1	Acrylonitrile	< 0.383	0.500	< 0.83	1.08	U	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 0.373	0.500	< 1.48	1.98	U	"	"	"	"	
75-09-2	Methylene chloride	< 0.443	0.500	< 1.54	1.74	U	"	"	"	"	
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 0.369	0.500	< 2.83	3.83	U	"	"	"	"	
75-15-0	Carbon disulfide	< 0.372	0.500	< 1.16	1.56	U	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 0.213	0.500	< 0.84	1.98	U	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 0.200	0.500	< 0.81	2.02	U	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 0.169	0.500	< 0.61	1.80	U	"	"	"	"	
67-63-0	Isopropyl alcohol	**0.760**	0.500	**1.87**	1.23		"	"	"	"	
78-93-3	2-Butanone (MEK)	< 0.358	0.500	< 1.06	1.47	U	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	< 0.163	0.500	< 0.65	1.98	U	"	"	"	"	
110-54-3	Hexane	**0.430**	0.500	**1.52**	1.76	J	"	"	"	"	
141-78-6	Ethyl acetate	< 0.275	0.500	< 0.99	1.80	U	"	"	"	"	
67-66-3	Chloroform	< 0.284	0.500	< 1.38	2.43	U	"	"	"	"	
109-99-9	Tetrahydrofuran	< 0.220	0.500	< 0.65	1.47	U	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 0.254	0.500	< 1.03	2.02	U	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 0.196	0.500	< 1.07	2.73	U	"	"	"	"	
71-43-2	Benzene	**0.570**	0.500	**1.82**	1.60		"	"	"	"	
56-23-5	Carbon tetrachloride	< 0.208	0.500	< 1.31	3.15	U	"	"	"	"	
110-82-7	Cyclohexane	< 0.175	0.500	< 0.60	1.72	U	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 0.196	0.500	< 0.91	2.31	U	"	"	"	"	
75-27-4	Bromodichloromethane	< 0.211	0.500	< 1.41	3.35	U	"	"	"	"	
79-01-6	Trichloroethene	< 0.178	0.500	< 0.96	2.69	U	"	"	"	"	
123-91-1	1,4-Dioxane	< 0.265	0.500	< 0.95	1.80	U	"	"	"	"	
142-82-5	n-Heptane	< 0.183	0.500	< 0.75	2.05	U	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 0.250	0.500	< 1.02	2.05	U	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 0.170	0.500	< 0.77	2.27	U	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 0.149	0.500	< 0.68	2.27	U	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 0.262	0.500	< 1.43	2.73	U	"	"	"	"	
108-88-3	Toluene	**0.790**	0.500	**2.97**	1.88		"	"	"	"	
591-78-6	2-Hexanone (MBK)	< 0.154	0.500	< 0.63	2.05	U	"	"	"	"	
124-48-1	Dibromochloromethane	< 0.184	0.500	< 1.57	4.26	U	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
IA-1 SB43107-05	1753-03-01	Air	26-Jan-12 12:05	30-Jan-12

CAS No.	Analyte(s)	Result/Units	*RDL	Result ug/m³	*RDL	Flag	Method Ref.	Analyzed	Analyst	Batch	Cert.
Air Quality Analyses											
Volatile Organics in Air		ppbv	Prepared 01-Feb-12 Dilution: 1				Can pressure: +1 Can ID: 4629				
106-93-4	1,2-Dibromoethane (EDB)	< 0.305	0.500	< 2.34	3.84	U	EPA TO-15	01-Feb-12	KRL	1202527	
127-18-4	Tetrachloroethene	**0.240**	0.500	**1.63**	3.39	J	"	"	"	"	
108-90-7	Chlorobenzene	< 0.290	0.500	< 1.34	2.30	U	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 0.227	0.500	< 1.56	3.44	U	"	"	"	"	
100-41-4	Ethylbenzene	< 0.195	0.500	< 0.85	2.17	U	"	"	"	"	
179601-23-1	m,p-Xylene	< 0.494	0.500	< 2.14	2.17	U	"	"	"	"	
75-25-2	Bromoform	< 0.222	0.500	< 2.29	5.17	U	"	"	"	"	
100-42-5	Styrene	< 0.247	0.500	< 1.05	2.13	U	"	"	"	"	
95-47-6	o-Xylene	< 0.305	0.500	< 1.32	2.17	U	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 0.273	0.500	< 1.87	3.43	U	"	"	"	"	
98-82-8	Isopropylbenzene	< 0.253	0.500	< 1.24	2.46	U	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 0.292	0.500	< 1.44	2.46	U	"	"	"	"	
622-96-8	4-Ethyltoluene	< 0.237	0.500	< 1.17	2.46	U	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 0.167	0.500	< 0.82	2.46	U	"	"	"	"	
91-20-3	Naphthalene	< 0.173	0.500	< 0.91	2.62	U	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 0.273	0.500	< 1.64	3.01	U	"	"	"	"	
100-44-7	Benzyl chloride	< 0.178	0.500	< 0.92	2.58	U	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 0.215	0.500	< 1.29	3.01	U	"	"	"	"	
135-98-8	sec-Butylbenzene	< 0.243	0.500	< 1.33	2.74	U	"	"	"	"	
99-87-6	4-Isopropyltoluene	< 0.239	0.500	< 1.28	2.68	U	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 0.232	0.500	< 1.39	3.01	U	"	"	"	"	
104-51-8	n-Butylbenzene	< 0.244	0.500	< 1.34	2.74	U	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 0.184	0.500	< 1.37	3.71	U	"	"	"	"	
87-68-3	Hexachlorobutadiene	< 0.234	0.500	< 2.50	5.33	U	"	"	"	"	
Surrogate recoveries:											
460-00-4	*4-Bromofluorobenzene*	*101*		*70-130 %*			"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
IA-2	1753-03-01	Air	26-Jan-12 12:10	30-Jan-12
SB43107-06				

Air Quality Analyses

Volatile Organics in Air — ppbv — Prepared 01-Feb-12 — Dilution: 1 — Can pressure: 0 — Can ID: 1342

CAS No.	Analyte(s)	Result/Units	*RDL	Result ug/m³	*RDL	Flag	Method Ref.	Analyzed	Analyst	Batch	Cert.
115-07-1	Propene	< 0.213	0.500	< 0.37	0.86	U	EPA TO-15	01-Feb-12	KRL	1202527	
75-71-8	Dichlorodifluoromethane (Freon12)	**0.650**	0.500	**3.21**	2.47		"	"	"	"	
74-87-3	Chloromethane	< 0.375	0.500	< 0.77	1.03	U	"	"	"	"	
76-14-2	1,2-Dichlorotetrafluoroethane (Freon 114)	< 0.365	0.500	< 2.55	3.49	U	"	"	"	"	
75-01-4	Vinyl chloride	< 0.394	0.500	< 1.01	1.28	U	"	"	"	"	
106-99-0	1,3-Butadiene	< 0.377	0.500	< 0.83	1.10	U	"	"	"	"	
74-83-9	Bromomethane	< 0.298	0.500	< 1.16	1.94	U	"	"	"	"	
75-00-3	Chloroethane	< 0.448	0.500	< 1.18	1.32	U	"	"	"	"	
67-64-1	Acetone	**2.44**	0.500	**5.80**	1.19		"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	**1.41**	0.500	**7.92**	2.81		"	"	"	"	
64-17-5	Ethanol	**1.32**	0.500	**2.49**	0.94		"	"	"	"	
107-13-1	Acrylonitrile	< 0.383	0.500	< 0.83	1.08	U	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 0.373	0.500	< 1.48	1.98	U	"	"	"	"	
75-09-2	Methylene chloride	< 0.443	0.500	< 1.54	1.74	U	"	"	"	"	
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 0.369	0.500	< 2.83	3.83	U	"	"	"	"	
75-15-0	Carbon disulfide	< 0.372	0.500	< 1.16	1.56	U	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 0.213	0.500	< 0.84	1.98	U	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 0.200	0.500	< 0.81	2.02	U	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 0.169	0.500	< 0.61	1.80	U	"	"	"	"	
67-63-0	Isopropyl alcohol	**0.620**	0.500	**1.52**	1.23		"	"	"	"	
78-93-3	2-Butanone (MEK)	< 0.358	0.500	< 1.06	1.47	U	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	< 0.163	0.500	< 0.65	1.98	U	"	"	"	"	
110-54-3	Hexane	**0.480**	0.500	**1.69**	1.76	J	"	"	"	"	
141-78-6	Ethyl acetate	< 0.275	0.500	< 0.99	1.80	U	"	"	"	"	
67-66-3	Chloroform	< 0.284	0.500	< 1.38	2.43	U	"	"	"	"	
109-99-9	Tetrahydrofuran	< 0.220	0.500	< 0.65	1.47	U	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 0.254	0.500	< 1.03	2.02	U	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 0.196	0.500	< 1.07	2.73	U	"	"	"	"	
71-43-2	Benzene	**0.280**	0.500	**0.89**	1.60	J	"	"	"	"	
56-23-5	Carbon tetrachloride	< 0.208	0.500	< 1.31	3.15	U	"	"	"	"	
110-82-7	Cyclohexane	< 0.175	0.500	< 0.60	1.72	U	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 0.196	0.500	< 0.91	2.31	U	"	"	"	"	
75-27-4	Bromodichloromethane	< 0.211	0.500	< 1.41	3.35	U	"	"	"	"	
79-01-6	Trichloroethene	**1.05**	0.500	**5.64**	2.69		"	"	"	"	
123-91-1	1,4-Dioxane	< 0.265	0.500	< 0.95	1.80	U	"	"	"	"	
142-82-5	n-Heptane	< 0.183	0.500	< 0.75	2.05	U	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 0.250	0.500	< 1.02	2.05	U	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 0.170	0.500	< 0.77	2.27	U	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 0.149	0.500	< 0.68	2.27	U	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 0.262	0.500	< 1.43	2.73	U	"	"	"	"	
108-88-3	Toluene	**0.320**	0.500	**1.20**	1.88	J	"	"	"	"	
591-78-6	2-Hexanone (MBK)	< 0.154	0.500	< 0.63	2.05	U	"	"	"	"	
124-48-1	Dibromochloromethane	< 0.184	0.500	< 1.57	4.26	U	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
IA-2 SB43107-06	1753-03-01	Air	26-Jan-12 12:10	30-Jan-12

Air Quality Analyses

Volatile Organics in Air — ppbv — Prepared 01-Feb-12, Dilution: 1 — Can pressure: 0, Can ID: 1342

CAS No.	Analyte(s)	Result/Units	*RDL	Result ug/m³	*RDL	Flag	Method Ref.	Analyzed	Analyst	Batch	Cert.
106-93-4	1,2-Dibromoethane (EDB)	< 0.305	0.500	< 2.34	3.84	U	EPA TO-15	01-Feb-12	KRL	1202527	
127-18-4	Tetrachloroethene	**0.330**	0.500	**2.24**	3.39	J	"	"	"	"	
108-90-7	Chlorobenzene	< 0.290	0.500	< 1.34	2.30	U	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 0.227	0.500	< 1.56	3.44	U	"	"	"	"	
100-41-4	Ethylbenzene	< 0.195	0.500	< 0.85	2.17	U	"	"	"	"	
179601-23-1	m,p-Xylene	< 0.494	0.500	< 2.14	2.17	U	"	"	"	"	
75-25-2	Bromoform	< 0.222	0.500	< 2.29	5.17	U	"	"	"	"	
100-42-5	Styrene	< 0.247	0.500	< 1.05	2.13	U	"	"	"	"	
95-47-6	o-Xylene	< 0.305	0.500	< 1.32	2.17	U	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 0.273	0.500	< 1.87	3.43	U	"	"	"	"	
98-82-8	Isopropylbenzene	< 0.253	0.500	< 1.24	2.46	U	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 0.292	0.500	< 1.44	2.46	U	"	"	"	"	
622-96-8	4-Ethyltoluene	< 0.237	0.500	< 1.17	2.46	U	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 0.167	0.500	< 0.82	2.46	U	"	"	"	"	
91-20-3	Naphthalene	< 0.173	0.500	< 0.91	2.62	U	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 0.273	0.500	< 1.64	3.01	U	"	"	"	"	
100-44-7	Benzyl chloride	< 0.178	0.500	< 0.92	2.58	U	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 0.215	0.500	< 1.29	3.01	U	"	"	"	"	
135-98-8	sec-Butylbenzene	< 0.243	0.500	< 1.33	2.74	U	"	"	"	"	
99-87-6	4-Isopropyltoluene	< 0.239	0.500	< 1.28	2.68	U	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 0.232	0.500	< 1.39	3.01	U	"	"	"	"	
104-51-8	n-Butylbenzene	< 0.244	0.500	< 1.34	2.74	U	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 0.184	0.500	< 1.37	3.71	U	"	"	"	"	
87-68-3	Hexachlorobutadiene	< 0.234	0.500	< 2.50	5.33	U	"	"	"	"	

Surrogate recoveries:

460-00-4	*4-Bromofluorobenzene*	*99*		*70-130 %*			"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
IA-3	1753-03-01	Air	26-Jan-12 12:17	30-Jan-12
SB43107-07				

Air Quality Analyses

Volatile Organics in Air — ppbv — Prepared 01-Feb-12 — Dilution: 1 — Can pressure: +1 — Can ID: 0488

CAS No.	Analyte(s)	Result/Units	*RDL	Result ug/m³	*RDL	Flag	Method Ref.	Analyzed	Analyst	Batch	Cert.
115-07-1	Propene	< 0.213	0.500	< 0.37	0.86	U	EPA TO-15	01-Feb-12	KRL	1202527	
75-71-8	Dichlorodifluoromethane (Freon12)	**0.680**	0.500	**3.36**	2.47		"	"	"	"	
74-87-3	Chloromethane	**0.630**	0.500	**1.30**	1.03		"	"	"	"	
76-14-2	1,2-Dichlorotetrafluoroethane (Freon 114)	< 0.365	0.500	< 2.55	3.49	U	"	"	"	"	
75-01-4	Vinyl chloride	< 0.394	0.500	< 1.01	1.28	U	"	"	"	"	
106-99-0	1,3-Butadiene	< 0.377	0.500	< 0.83	1.10	U	"	"	"	"	
74-83-9	Bromomethane	< 0.298	0.500	< 1.16	1.94	U	"	"	"	"	
75-00-3	Chloroethane	< 0.448	0.500	< 1.18	1.32	U	"	"	"	"	
67-64-1	Acetone	**3.49**	0.500	**8.29**	1.19		"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	**0.840**	0.500	**4.72**	2.81		"	"	"	"	
64-17-5	Ethanol	**3.73**	0.500	**7.03**	0.94		"	"	"	"	
107-13-1	Acrylonitrile	< 0.383	0.500	< 0.83	1.08	U	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 0.373	0.500	< 1.48	1.98	U	"	"	"	"	
75-09-2	Methylene chloride	< 0.443	0.500	< 1.54	1.74	U	"	"	"	"	
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 0.369	0.500	< 2.83	3.83	U	"	"	"	"	
75-15-0	Carbon disulfide	< 0.372	0.500	< 1.16	1.56	U	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 0.213	0.500	< 0.84	1.98	U	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 0.200	0.500	< 0.81	2.02	U	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 0.169	0.500	< 0.61	1.80	U	"	"	"	"	
67-63-0	Isopropyl alcohol	**0.800**	0.500	**1.96**	1.23		"	"	"	"	
78-93-3	2-Butanone (MEK)	< 0.358	0.500	< 1.06	1.47	U	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	**0.650**	0.500	**2.58**	1.98		"	"	"	"	
110-54-3	Hexane	< 0.217	0.500	< 0.77	1.76	U	"	"	"	"	
141-78-6	Ethyl acetate	< 0.275	0.500	< 0.99	1.80	U	"	"	"	"	
67-66-3	Chloroform	< 0.284	0.500	< 1.38	2.43	U	"	"	"	"	
109-99-9	Tetrahydrofuran	< 0.220	0.500	< 0.65	1.47	U	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 0.254	0.500	< 1.03	2.02	U	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 0.196	0.500	< 1.07	2.73	U	"	"	"	"	
71-43-2	Benzene	< 0.161	0.500	< 0.51	1.60	U	"	"	"	"	
56-23-5	Carbon tetrachloride	< 0.208	0.500	< 1.31	3.15	U	"	"	"	"	
110-82-7	Cyclohexane	< 0.175	0.500	< 0.60	1.72	U	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 0.196	0.500	< 0.91	2.31	U	"	"	"	"	
75-27-4	Bromodichloromethane	< 0.211	0.500	< 1.41	3.35	U	"	"	"	"	
79-01-6	Trichloroethene	**0.420**	0.500	**2.26**	2.69	J	"	"	"	"	
123-91-1	1,4-Dioxane	< 0.265	0.500	< 0.95	1.80	U	"	"	"	"	
142-82-5	n-Heptane	< 0.183	0.500	< 0.75	2.05	U	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 0.250	0.500	< 1.02	2.05	U	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 0.170	0.500	< 0.77	2.27	U	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 0.149	0.500	< 0.68	2.27	U	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 0.262	0.500	< 1.43	2.73	U	"	"	"	"	
108-88-3	Toluene	< 0.189	0.500	< 0.71	1.88	U	"	"	"	"	
591-78-6	2-Hexanone (MBK)	< 0.154	0.500	< 0.63	2.05	U	"	"	"	"	
124-48-1	Dibromochloromethane	< 0.184	0.500	< 1.57	4.26	U	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
IA-3 SB43107-07	1753-03-01	Air	26-Jan-12 12:17	30-Jan-12

CAS No.	*Analyte(s)*	*Result/Units*	**RDL*	*Result ug/m³*	**RDL*	*Flag*	*Method Ref.*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Air Quality Analyses											
Volatile Organics in Air		ppbv	Prepared 01-Feb-12 Dilution: 1				Can pressure: +1 Can ID: 0488				
106-93-4	1,2-Dibromoethane (EDB)	< 0.305	0.500	< 2.34	3.84	U	EPA TO-15	01-Feb-12	KRL	1202527	
127-18-4	Tetrachloroethene	**0.650**	0.500	**4.41**	3.39		"	"	"	"	
108-90-7	Chlorobenzene	< 0.290	0.500	< 1.34	2.30	U	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 0.227	0.500	< 1.56	3.44	U	"	"	"	"	
100-41-4	Ethylbenzene	< 0.195	0.500	< 0.85	2.17	U	"	"	"	"	
179601-23-1	m,p-Xylene	< 0.494	0.500	< 2.14	2.17	U	"	"	"	"	
75-25-2	Bromoform	< 0.222	0.500	< 2.29	5.17	U	"	"	"	"	
100-42-5	Styrene	< 0.247	0.500	< 1.05	2.13	U	"	"	"	"	
95-47-6	o-Xylene	< 0.305	0.500	< 1.32	2.17	U	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 0.273	0.500	< 1.87	3.43	U	"	"	"	"	
98-82-8	Isopropylbenzene	< 0.253	0.500	< 1.24	2.46	U	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 0.292	0.500	< 1.44	2.46	U	"	"	"	"	
622-96-8	4-Ethyltoluene	< 0.237	0.500	< 1.17	2.46	U	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 0.167	0.500	< 0.82	2.46	U	"	"	"	"	
91-20-3	Naphthalene	< 0.173	0.500	< 0.91	2.62	U	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 0.273	0.500	< 1.64	3.01	U	"	"	"	"	
100-44-7	Benzyl chloride	< 0.178	0.500	< 0.92	2.58	U	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 0.215	0.500	< 1.29	3.01	U	"	"	"	"	
135-98-8	sec-Butylbenzene	< 0.243	0.500	< 1.33	2.74	U	"	"	"	"	
99-87-6	4-Isopropyltoluene	< 0.239	0.500	< 1.28	2.68	U	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 0.232	0.500	< 1.39	3.01	U	"	"	"	"	
104-51-8	n-Butylbenzene	< 0.244	0.500	< 1.34	2.74	U	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 0.184	0.500	< 1.37	3.71	U	"	"	"	"	
87-68-3	Hexachlorobutadiene	< 0.234	0.500	< 2.50	5.33	U	"	"	"	"	
Surrogate recoveries:											
460-00-4	*4-Bromofluorobenzene*	*99*		*70-130 %*			"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
IA-4	1753-03-01	Air	26-Jan-12 10:23	30-Jan-12
SB43107-08				

Air Quality Analyses

Volatile Organics in Air — ppbv — Prepared 01-Feb-12 — Dilution: 1 — Can pressure: -2 — Can ID: 7633

CAS No.	Analyte(s)	Result/Units	*RDL	Result ug/m³	*RDL	Flag	Method Ref.	Analyzed	Analyst	Batch	Cert.
115-07-1	Propene	< 0.213	0.500	< 0.37	0.86	U	EPA TO-15	01-Feb-12	KRL	1202527	
75-71-8	Dichlorodifluoromethane (Freon12)	**0.700**	0.500	**3.46**	2.47		"	"	"	"	
74-87-3	Chloromethane	**0.850**	0.500	**1.76**	1.03		"	"	"	"	
76-14-2	1,2-Dichlorotetrafluoroethane (Freon 114)	< 0.365	0.500	< 2.55	3.49	U	"	"	"	"	
75-01-4	Vinyl chloride	< 0.394	0.500	< 1.01	1.28	U	"	"	"	"	
106-99-0	1,3-Butadiene	< 0.377	0.500	< 0.83	1.10	U	"	"	"	"	
74-83-9	Bromomethane	< 0.298	0.500	< 1.16	1.94	U	"	"	"	"	
75-00-3	Chloroethane	< 0.448	0.500	< 1.18	1.32	U	"	"	"	"	
67-64-1	Acetone	< 0.445	0.500	< 1.06	1.19	U	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	**1.74**	0.500	**9.78**	2.81		"	"	"	"	
64-17-5	Ethanol	**4.15**	0.500	**7.82**	0.94		"	"	"	"	
107-13-1	Acrylonitrile	< 0.383	0.500	< 0.83	1.08	U	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 0.373	0.500	< 1.48	1.98	U	"	"	"	"	
75-09-2	Methylene chloride	< 0.443	0.500	< 1.54	1.74	U	"	"	"	"	
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 0.369	0.500	< 2.83	3.83	U	"	"	"	"	
75-15-0	Carbon disulfide	< 0.372	0.500	< 1.16	1.56	U	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 0.213	0.500	< 0.84	1.98	U	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 0.200	0.500	< 0.81	2.02	U	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 0.169	0.500	< 0.61	1.80	U	"	"	"	"	
67-63-0	Isopropyl alcohol	**1.22**	0.500	**2.99**	1.23		"	"	"	"	
78-93-3	2-Butanone (MEK)	< 0.358	0.500	< 1.06	1.47	U	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	< 0.163	0.500	< 0.65	1.98	U	"	"	"	"	
110-54-3	Hexane	**0.440**	0.500	**1.55**	1.76	J	"	"	"	"	
141-78-6	Ethyl acetate	< 0.275	0.500	< 0.99	1.80	U	"	"	"	"	
67-66-3	Chloroform	< 0.284	0.500	< 1.38	2.43	U	"	"	"	"	
109-99-9	Tetrahydrofuran	< 0.220	0.500	< 0.65	1.47	U	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 0.254	0.500	< 1.03	2.02	U	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 0.196	0.500	< 1.07	2.73	U	"	"	"	"	
71-43-2	Benzene	**0.450**	0.500	**1.44**	1.60	J	"	"	"	"	
56-23-5	Carbon tetrachloride	< 0.208	0.500	< 1.31	3.15	U	"	"	"	"	
110-82-7	Cyclohexane	< 0.175	0.500	< 0.60	1.72	U	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 0.196	0.500	< 0.91	2.31	U	"	"	"	"	
75-27-4	Bromodichloromethane	< 0.211	0.500	< 1.41	3.35	U	"	"	"	"	
79-01-6	Trichloroethene	**1.51**	0.500	**8.12**	2.69		"	"	"	"	
123-91-1	1,4-Dioxane	< 0.265	0.500	< 0.95	1.80	U	"	"	"	"	
142-82-5	n-Heptane	< 0.183	0.500	< 0.75	2.05	U	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 0.250	0.500	< 1.02	2.05	U	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 0.170	0.500	< 0.77	2.27	U	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 0.149	0.500	< 0.68	2.27	U	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 0.262	0.500	< 1.43	2.73	U	"	"	"	"	
108-88-3	Toluene	**0.570**	0.500	**2.14**	1.88		"	"	"	"	
591-78-6	2-Hexanone (MBK)	< 0.154	0.500	< 0.63	2.05	U	"	"	"	"	
124-48-1	Dibromochloromethane	< 0.184	0.500	< 1.57	4.26	U	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
IA-4	1753-03-01	Air	26-Jan-12 10:23	30-Jan-12
SB43107-08				

CAS No.	*Analyte(s)*	*Result/Units*	**RDL*	*Result ug/m³*	**RDL*	*Flag*	*Method Ref.*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Air Quality Analyses											
Volatile Organics in Air		ppbv	Prepared 01-Feb-12 Dilution: 1				Can pressure: -2 Can ID: 7633				
106-93-4	1,2-Dibromoethane (EDB)	< 0.305	0.500	< 2.34	3.84	U	EPA TO-15	01-Feb-12	KRL	1202527	
127-18-4	Tetrachloroethene	< 0.201	0.500	< 1.36	3.39	U	"	"	"	"	
108-90-7	Chlorobenzene	< 0.290	0.500	< 1.34	2.30	U	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 0.227	0.500	< 1.56	3.44	U	"	"	"	"	
100-41-4	Ethylbenzene	< 0.195	0.500	< 0.85	2.17	U	"	"	"	"	
179601-23-1	m,p-Xylene	< 0.494	0.500	< 2.14	2.17	U	"	"	"	"	
75-25-2	Bromoform	< 0.222	0.500	< 2.29	5.17	U	"	"	"	"	
100-42-5	Styrene	< 0.247	0.500	< 1.05	2.13	U	"	"	"	"	
95-47-6	o-Xylene	< 0.305	0.500	< 1.32	2.17	U	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 0.273	0.500	< 1.87	3.43	U	"	"	"	"	
98-82-8	Isopropylbenzene	< 0.253	0.500	< 1.24	2.46	U	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 0.292	0.500	< 1.44	2.46	U	"	"	"	"	
622-96-8	4-Ethyltoluene	< 0.237	0.500	< 1.17	2.46	U	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 0.167	0.500	< 0.82	2.46	U	"	"	"	"	
91-20-3	Naphthalene	< 0.173	0.500	< 0.91	2.62	U	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 0.273	0.500	< 1.64	3.01	U	"	"	"	"	
100-44-7	Benzyl chloride	< 0.178	0.500	< 0.92	2.58	U	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 0.215	0.500	< 1.29	3.01	U	"	"	"	"	
135-98-8	sec-Butylbenzene	< 0.243	0.500	< 1.33	2.74	U	"	"	"	"	
99-87-6	4-Isopropyltoluene	< 0.239	0.500	< 1.28	2.68	U	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 0.232	0.500	< 1.39	3.01	U	"	"	"	"	
104-51-8	n-Butylbenzene	< 0.244	0.500	< 1.34	2.74	U	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 0.184	0.500	< 1.37	3.71	U	"	"	"	"	
87-68-3	Hexachlorobutadiene	< 0.234	0.500	< 2.50	5.33	U	"	"	"	"	
Surrogate recoveries:											
460-00-4	*4-Bromofluorobenzene*	*99*		*70-130 %*			"	"	"	"	

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1202527 - General Air Prep										
Blank (1202527-BLK1)						Prepared & Analyzed: 01-Feb-12				
Propene	< 0.213	U	ppbv	0.213						
Dichlorodifluoromethane (Freon12)	< 0.330	U	ppbv	0.330						
Chloromethane	< 0.375	U	ppbv	0.375						
1,2-Dichlorotetrafluoroethane (Freon 114)	< 0.365	U	ppbv	0.365						
Vinyl chloride	< 0.394	U	ppbv	0.394						
1,3-Butadiene	< 0.377	U	ppbv	0.377						
Bromomethane	< 0.298	U	ppbv	0.298						
Chloroethane	< 0.448	U	ppbv	0.448						
Acetone	< 0.445	U	ppbv	0.445						
Trichlorofluoromethane (Freon 11)	< 0.447	U	ppbv	0.447						
Ethanol	< 0.404	U	ppbv	0.404						
Acrylonitrile	< 0.383	U	ppbv	0.383						
1,1-Dichloroethene	< 0.373	U	ppbv	0.373						
Methylene chloride	< 0.443	U	ppbv	0.443						
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 0.369	U	ppbv	0.369						
Carbon disulfide	< 0.372	U	ppbv	0.372						
trans-1,2-Dichloroethene	< 0.213	U	ppbv	0.213						
1,1-Dichloroethane	< 0.200	U	ppbv	0.200						
Methyl tert-butyl ether	< 0.169	U	ppbv	0.169						
Isopropyl alcohol	< 0.228	U	ppbv	0.228						
2-Butanone (MEK)	< 0.358	U	ppbv	0.358						
cis-1,2-Dichloroethene	< 0.163	U	ppbv	0.163						
Hexane	< 0.217	U	ppbv	0.217						
Ethyl acetate	< 0.275	U	ppbv	0.275						
Chloroform	< 0.284	U	ppbv	0.284						
Tetrahydrofuran	< 0.220	U	ppbv	0.220						
1,2-Dichloroethane	< 0.254	U	ppbv	0.254						
1,1,1-Trichloroethane	< 0.196	U	ppbv	0.196						
Benzene	< 0.161	U	ppbv	0.161						
Carbon tetrachloride	< 0.208	U	ppbv	0.208						
Cyclohexane	< 0.175	U	ppbv	0.175						
1,2-Dichloropropane	< 0.196	U	ppbv	0.196						
Bromodichloromethane	< 0.211	U	ppbv	0.211						
Trichloroethene	< 0.178	U	ppbv	0.178						
1,4-Dioxane	< 0.265	U	ppbv	0.265						
n-Heptane	< 0.183	U	ppbv	0.183						
4-Methyl-2-pentanone (MIBK)	< 0.250	U	ppbv	0.250						
cis-1,3-Dichloropropene	< 0.170	U	ppbv	0.170						
trans-1,3-Dichloropropene	< 0.149	U	ppbv	0.149						
1,1,2-Trichloroethane	< 0.262	U	ppbv	0.262						
Toluene	< 0.189	U	ppbv	0.189						
2-Hexanone (MBK)	< 0.154	U	ppbv	0.154						
Dibromochloromethane	< 0.184	U	ppbv	0.184						
1,2-Dibromoethane (EDB)	< 0.305	U	ppbv	0.305						
Tetrachloroethene	< 0.201	U	ppbv	0.201						
Chlorobenzene	< 0.290	U	ppbv	0.290						
1,1,1,2-Tetrachloroethane	< 0.227	U	ppbv	0.227						
Ethylbenzene	< 0.195	U	ppbv	0.195						
m,p-Xylene	< 0.494	U	ppbv	0.494						
Bromoform	< 0.222	U	ppbv	0.222						
Styrene	< 0.247	U	ppbv	0.247						
o-Xylene	< 0.305	U	ppbv	0.305						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1202527 - General Air Prep										
Blank (1202527-BLK1)					Prepared & Analyzed: 01-Feb-12					
1,1,2,2-Tetrachloroethane	< 0.273	U	ppbv	0.273						
Isopropylbenzene	< 0.253	U	ppbv	0.253						
1,3,5-Trimethylbenzene	< 0.292	U	ppbv	0.292						
4-Ethyltoluene	< 0.237	U	ppbv	0.237						
1,2,4-Trimethylbenzene	< 0.167	U	ppbv	0.167						
Naphthalene	< 0.173	U	ppbv	0.173						
1,3-Dichlorobenzene	< 0.273	U	ppbv	0.273						
Benzyl chloride	< 0.178	U	ppbv	0.178						
1,4-Dichlorobenzene	< 0.215	U	ppbv	0.215						
sec-Butylbenzene	< 0.243	U	ppbv	0.243						
4-Isopropyltoluene	< 0.239	U	ppbv	0.239						
1,2-Dichlorobenzene	< 0.232	U	ppbv	0.232						
n-Butylbenzene	< 0.244	U	ppbv	0.244						
1,2,4-Trichlorobenzene	< 0.184	U	ppbv	0.184						
Hexachlorobutadiene	< 0.234	U	ppbv	0.234						
Surrogate: 4-Bromofluorobenzene	*9.93*		ppbv		*10.0*		*99*	*70-130*		
LCS (1202527-BS1)					Prepared & Analyzed: 01-Feb-12					
Propene	**9.42**		ppbv		10.0		94	70-130		
Dichlorodifluoromethane (Freon12)	**9.61**		ppbv		10.0		96	70-130		
Chloromethane	**8.73**		ppbv		10.0		87	70-130		
1,2-Dichlorotetrafluoroethane (Freon 114)	**9.15**		ppbv		10.0		92	70-130		
Vinyl chloride	**8.93**		ppbv		10.0		89	70-130		
1,3-Butadiene	**8.76**		ppbv		10.0		88	70-130		
Bromomethane	**8.72**		ppbv		10.0		87	70-130		
Chloroethane	**9.09**		ppbv		10.0		91	70-130		
Acetone	**8.88**		ppbv		10.0		89	70-130		
Trichlorofluoromethane (Freon 11)	**9.64**		ppbv		10.0		96	70-130		
Ethanol	**9.04**		ppbv		10.0		90	70-130		
Acrylonitrile	**8.88**		ppbv		10.0		89	60-160		
1,1-Dichloroethene	**8.97**		ppbv		10.0		90	70-130		
Methylene chloride	**8.60**		ppbv		10.0		86	70-130		
1,1,2-Trichlorotrifluoroethane (Freon 113)	**8.79**		ppbv		10.0		88	70-130		
Carbon disulfide	**8.26**		ppbv		10.0		83	70-130		
trans-1,2-Dichloroethene	**9.19**		ppbv		10.0		92	70-130		
1,1-Dichloroethane	**9.45**		ppbv		10.0		94	70-130		
Methyl tert-butyl ether	**8.85**		ppbv		10.0		88	70-130		
Isopropyl alcohol	**9.02**		ppbv		10.0		90	70-130		
2-Butanone (MEK)	**9.51**		ppbv		10.0		95	70-130		
cis-1,2-Dichloroethene	**9.13**		ppbv		10.0		91	70-130		
Hexane	**9.91**		ppbv		10.0		99	70-130		
Ethyl acetate	**10.4**		ppbv		10.0		104	70-130		
Chloroform	**9.38**		ppbv		10.0		94	70-130		
Tetrahydrofuran	**9.31**		ppbv		10.0		93	70-130		
1,2-Dichloroethane	**9.46**		ppbv		10.0		95	70-130		
1,1,1-Trichloroethane	**9.18**		ppbv		10.0		92	70-130		
Benzene	**9.45**		ppbv		10.0		94	70-130		
Carbon tetrachloride	**9.21**		ppbv		10.0		92	70-130		
Cyclohexane	**8.84**		ppbv		10.0		88	70-130		
1,2-Dichloropropane	**9.70**		ppbv		10.0		97	70-130		
Bromodichloromethane	**9.86**		ppbv		10.0		99	70-130		
Trichloroethene	**9.72**		ppbv		10.0		97	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1202527 - General Air Prep										
LCS (1202527-BS1)					Prepared & Analyzed: 01-Feb-12					
1,4-Dioxane	**8.37**		ppbv		10.0		84	60-160		
n-Heptane	**10.3**		ppbv		10.0		103	70-130		
4-Methyl-2-pentanone (MIBK)	**10.5**		ppbv		10.0		105	70-130		
cis-1,3-Dichloropropene	**9.48**		ppbv		10.0		95	70-130		
trans-1,3-Dichloropropene	**9.07**		ppbv		10.0		91	70-130		
1,1,2-Trichloroethane	**9.65**		ppbv		10.0		96	70-130		
Toluene	**9.51**		ppbv		10.0		95	70-130		
2-Hexanone (MBK)	**11.4**		ppbv		10.0		114	70-130		
Dibromochloromethane	**9.56**		ppbv		10.0		96	70-130		
1,2-Dibromoethane (EDB)	**9.26**		ppbv		10.0		93	70-130		
Tetrachloroethene	**9.01**		ppbv		10.0		90	70-130		
Chlorobenzene	**9.21**		ppbv		10.0		92	70-130		
1,1,1,2-Tetrachloroethane	**8.97**		ppbv		10.0		90	60-160		
Ethylbenzene	**9.28**		ppbv		10.0		93	70-130		
m,p-Xylene	**18.7**		ppbv		20.0		93	70-130		
Bromoform	**9.47**		ppbv		10.0		95	70-130		
Styrene	**8.93**		ppbv		10.0		89	70-130		
o-Xylene	**9.42**		ppbv		10.0		94	70-130		
1,1,2,2-Tetrachloroethane	**9.74**		ppbv		10.0		97	70-130		
Isopropylbenzene	**8.98**		ppbv		10.0		90	60-160		
1,3,5-Trimethylbenzene	**9.14**		ppbv		10.0		91	70-130		
4-Ethyltoluene	**9.16**		ppbv		10.0		92	70-130		
1,2,4-Trimethylbenzene	**9.11**		ppbv		10.0		91	70-130		
Naphthalene	**9.07**		ppbv		10.0		91	70-160		
1,3-Dichlorobenzene	**9.05**		ppbv		10.0		90	70-130		
Benzyl chloride	**7.43**		ppbv		10.0		74	70-130		
1,4-Dichlorobenzene	**8.89**		ppbv		10.0		89	70-130		
sec-Butylbenzene	**9.13**		ppbv		10.0		91	60-160		
4-Isopropyltoluene	**9.08**		ppbv		10.0		91	60-160		
1,2-Dichlorobenzene	**8.70**		ppbv		10.0		87	70-130		
n-Butylbenzene	**9.51**		ppbv		10.0		95	60-160		
1,2,4-Trichlorobenzene	**8.02**		ppbv		10.0		80	70-130		
Hexachlorobutadiene	**7.80**		ppbv		10.0		78	70-130		
Surrogate: 4-Bromofluorobenzene	*9.84*		ppbv		*10.0*		*98*	*70-130*		
Duplicate (1202527-DUP1)			**Source: SB43107-06**		Prepared & Analyzed: 01-Feb-12					
Propene	< 0.213	U	ppbv	0.213		BRL				30
Dichlorodifluoromethane (Freon12)	**0.650**		ppbv	0.330		0.650			0	30
Chloromethane	< 0.375	U	ppbv	0.375		BRL				30
1,2-Dichlorotetrafluoroethane (Freon 114)	< 0.365	U	ppbv	0.365		BRL				30
Vinyl chloride	< 0.394	U	ppbv	0.394		BRL				30
1,3-Butadiene	< 0.377	U	ppbv	0.377		BRL				30
Bromomethane	< 0.298	U	ppbv	0.298		BRL				30
Chloroethane	< 0.448	U	ppbv	0.448		BRL				30
Acetone	**2.47**		ppbv	0.445		2.44			1	30
Trichlorofluoromethane (Freon 11)	**1.41**		ppbv	0.447		1.41			0	30
Ethanol	**1.34**		ppbv	0.404		1.32			2	30
Acrylonitrile	< 0.383	U	ppbv	0.383		BRL				30
1,1-Dichloroethene	< 0.373	U	ppbv	0.373		BRL				30
Methylene chloride	< 0.443	U	ppbv	0.443		BRL				30
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 0.369	U	ppbv	0.369		BRL				30
Carbon disulfide	< 0.372	U	ppbv	0.372		BRL				30

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1202527 - General Air Prep										
Duplicate (1202527-DUP1)			**Source: SB43107-06**			Prepared & Analyzed: 01-Feb-12				
trans-1,2-Dichloroethene	< 0.213	U	ppbv	0.213		BRL				30
1,1-Dichloroethane	< 0.200	U	ppbv	0.200		BRL				30
Methyl tert-butyl ether	< 0.169	U	ppbv	0.169		BRL				30
Isopropyl alcohol	**0.620**		ppbv	0.228		0.620			0	30
2-Butanone (MEK)	< 0.358	U	ppbv	0.358		BRL				30
cis-1,2-Dichloroethene	< 0.163	U	ppbv	0.163		BRL				30
Hexane	**0.490**	J	ppbv	0.217		0.480			2	30
Ethyl acetate	< 0.275	U	ppbv	0.275		BRL				30
Chloroform	< 0.284	U	ppbv	0.284		BRL				30
Tetrahydrofuran	< 0.220	U	ppbv	0.220		BRL				30
1,2-Dichloroethane	< 0.254	U	ppbv	0.254		BRL				30
1,1,1-Trichloroethane	< 0.196	U	ppbv	0.196		BRL				30
Benzene	**0.280**	J	ppbv	0.161		0.280			0	30
Carbon tetrachloride	< 0.208	U	ppbv	0.208		BRL				30
Cyclohexane	< 0.175	U	ppbv	0.175		BRL				30
1,2-Dichloropropane	< 0.196	U	ppbv	0.196		BRL				30
Bromodichloromethane	< 0.211	U	ppbv	0.211		BRL				30
Trichloroethene	**1.09**		ppbv	0.178		1.05			4	30
1,4-Dioxane	< 0.265	U	ppbv	0.265		BRL				30
n-Heptane	< 0.183	U	ppbv	0.183		BRL				30
4-Methyl-2-pentanone (MIBK)	< 0.250	U	ppbv	0.250		BRL				30
cis-1,3-Dichloropropene	< 0.170	U	ppbv	0.170		BRL				30
trans-1,3-Dichloropropene	< 0.149	U	ppbv	0.149		BRL				30
1,1,2-Trichloroethane	< 0.262	U	ppbv	0.262		BRL				30
Toluene	**0.330**	J	ppbv	0.189		0.320			3	30
2-Hexanone (MBK)	< 0.154	U	ppbv	0.154		BRL				30
Dibromochloromethane	< 0.184	U	ppbv	0.184		BRL				30
1,2-Dibromoethane (EDB)	< 0.305	U	ppbv	0.305		BRL				30
Tetrachloroethene	**0.340**	J	ppbv	0.201		0.330			3	30
Chlorobenzene	< 0.290	U	ppbv	0.290		BRL				30
1,1,1,2-Tetrachloroethane	< 0.227	U	ppbv	0.227		BRL				30
Ethylbenzene	< 0.195	U	ppbv	0.195		BRL				30
m,p-Xylene	< 0.494	U	ppbv	0.494		BRL				30
Bromoform	< 0.222	U	ppbv	0.222		BRL				30
Styrene	< 0.247	U	ppbv	0.247		BRL				30
o-Xylene	< 0.305	U	ppbv	0.305		BRL				30
1,1,2,2-Tetrachloroethane	< 0.273	U	ppbv	0.273		BRL				30
Isopropylbenzene	< 0.253	U	ppbv	0.253		BRL				30
1,3,5-Trimethylbenzene	< 0.292	U	ppbv	0.292		BRL				30
4-Ethyltoluene	< 0.237	U	ppbv	0.237		BRL				30
1,2,4-Trimethylbenzene	< 0.167	U	ppbv	0.167		BRL				30
Naphthalene	< 0.173	U	ppbv	0.173		BRL				30
1,3-Dichlorobenzene	< 0.273	U	ppbv	0.273		BRL				30
Benzyl chloride	< 0.178	U	ppbv	0.178		BRL				30
1,4-Dichlorobenzene	< 0.215	U	ppbv	0.215		BRL				30
sec-Butylbenzene	< 0.243	U	ppbv	0.243		BRL				30
4-Isopropyltoluene	< 0.239	U	ppbv	0.239		BRL				30
1,2-Dichlorobenzene	< 0.232	U	ppbv	0.232		BRL				30
n-Butylbenzene	< 0.244	U	ppbv	0.244		BRL				30
1,2,4-Trichlorobenzene	< 0.184	U	ppbv	0.184		BRL				30
Hexachlorobutadiene	< 0.234	U	ppbv	0.234		BRL				30

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1202527 - General Air Prep										
Duplicate (1202527-DUP1)			**Source: SB43107-06**		Prepared & Analyzed: 01-Feb-12					
Surrogate: 4-Bromofluorobenzene	*9.82*		ppbv		*10.0*		*98*	*70-130*		
Batch 1202863 - General Air Prep										
Blank (1202863-BLK1)					Prepared & Analyzed: 06-Feb-12					
Propene	< 0.213	U	ppbv	0.213						
Dichlorodifluoromethane (Freon12)	< 0.330	U	ppbv	0.330						
Chloromethane	< 0.375	U	ppbv	0.375						
1,2-Dichlorotetrafluoroethane (Freon 114)	< 0.365	U	ppbv	0.365						
Vinyl chloride	< 0.394	U	ppbv	0.394						
1,3-Butadiene	< 0.377	U	ppbv	0.377						
Bromomethane	< 0.298	U	ppbv	0.298						
Chloroethane	< 0.448	U	ppbv	0.448						
Acetone	< 0.445	U	ppbv	0.445						
Trichlorofluoromethane (Freon 11)	< 0.447	U	ppbv	0.447						
Ethanol	< 0.404	U	ppbv	0.404						
Acrylonitrile	< 0.383	U	ppbv	0.383						
1,1-Dichloroethene	< 0.373	U	ppbv	0.373						
Methylene chloride	< 0.443	U	ppbv	0.443						
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 0.369	U	ppbv	0.369						
Carbon disulfide	< 0.372	U	ppbv	0.372						
trans-1,2-Dichloroethene	< 0.213	U	ppbv	0.213						
1,1-Dichloroethane	< 0.200	U	ppbv	0.200						
Methyl tert-butyl ether	< 0.169	U	ppbv	0.169						
Isopropyl alcohol	< 0.228	U	ppbv	0.228						
2-Butanone (MEK)	< 0.358	U	ppbv	0.358						
cis-1,2-Dichloroethene	< 0.163	U	ppbv	0.163						
Hexane	< 0.217	U	ppbv	0.217						
Ethyl acetate	< 0.275	U	ppbv	0.275						
Chloroform	< 0.284	U	ppbv	0.284						
Tetrahydrofuran	< 0.220	U	ppbv	0.220						
1,2-Dichloroethane	< 0.254	U	ppbv	0.254						
1,1,1-Trichloroethane	< 0.196	U	ppbv	0.196						
Benzene	< 0.161	U	ppbv	0.161						
Carbon tetrachloride	< 0.208	U	ppbv	0.208						
Cyclohexane	< 0.175	U	ppbv	0.175						
1,2-Dichloropropane	< 0.196	U	ppbv	0.196						
Bromodichloromethane	< 0.211	U	ppbv	0.211						
Trichloroethene	< 0.178	U	ppbv	0.178						
1,4-Dioxane	< 0.265	U	ppbv	0.265						
n-Heptane	< 0.183	U	ppbv	0.183						
4-Methyl-2-pentanone (MIBK)	< 0.250	U	ppbv	0.250						
cis-1,3-Dichloropropene	< 0.170	U	ppbv	0.170						
trans-1,3-Dichloropropene	< 0.149	U	ppbv	0.149						
1,1,2-Trichloroethane	< 0.262	U	ppbv	0.262						
Toluene	< 0.189	U	ppbv	0.189						
2-Hexanone (MBK)	< 0.154	U	ppbv	0.154						
Dibromochloromethane	< 0.184	U	ppbv	0.184						
1,2-Dibromoethane (EDB)	< 0.305	U	ppbv	0.305						
Tetrachloroethene	< 0.201	U	ppbv	0.201						
Chlorobenzene	< 0.290	U	ppbv	0.290						
1,1,1,2-Tetrachloroethane	< 0.227	U	ppbv	0.227						
Ethylbenzene	< 0.195	U	ppbv	0.195						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1202863 - General Air Prep										
Blank (1202863-BLK1)					Prepared & Analyzed: 06-Feb-12					
m,p-Xylene	< 0.494	U	ppbv	0.494						
Bromoform	< 0.222	U	ppbv	0.222						
Styrene	< 0.247	U	ppbv	0.247						
o-Xylene	< 0.305	U	ppbv	0.305						
1,1,2,2-Tetrachloroethane	< 0.273	U	ppbv	0.273						
Isopropylbenzene	< 0.253	U	ppbv	0.253						
1,3,5-Trimethylbenzene	< 0.292	U	ppbv	0.292						
4-Ethyltoluene	< 0.237	U	ppbv	0.237						
1,2,4-Trimethylbenzene	< 0.167	U	ppbv	0.167						
Naphthalene	< 0.173	U	ppbv	0.173						
1,3-Dichlorobenzene	< 0.273	U	ppbv	0.273						
Benzyl chloride	< 0.178	U	ppbv	0.178						
1,4-Dichlorobenzene	< 0.215	U	ppbv	0.215						
sec-Butylbenzene	< 0.243	U	ppbv	0.243						
4-Isopropyltoluene	< 0.239	U	ppbv	0.239						
1,2-Dichlorobenzene	< 0.232	U	ppbv	0.232						
n-Butylbenzene	< 0.244	U	ppbv	0.244						
1,2,4-Trichlorobenzene	< 0.184	U	ppbv	0.184						
Hexachlorobutadiene	< 0.234	U	ppbv	0.234						
Surrogate: 4-Bromofluorobenzene	*10.0*		ppbv		*10.0*		*100*	*70-130*		
LCS (1202863-BS1)					Prepared & Analyzed: 06-Feb-12					
Propene	**9.94**		ppbv		10.0		99	70-130		
Dichlorodifluoromethane (Freon12)	**10.2**		ppbv		10.0		102	70-130		
Chloromethane	**9.08**		ppbv		10.0		91	70-130		
1,2-Dichlorotetrafluoroethane (Freon 114)	**9.81**		ppbv		10.0		98	70-130		
Vinyl chloride	**9.41**		ppbv		10.0		94	70-130		
1,3-Butadiene	**9.20**		ppbv		10.0		92	70-130		
Bromomethane	**9.17**		ppbv		10.0		92	70-130		
Chloroethane	**9.44**		ppbv		10.0		94	70-130		
Acetone	**9.28**		ppbv		10.0		93	70-130		
Trichlorofluoromethane (Freon 11)	**10.3**		ppbv		10.0		103	70-130		
Ethanol	**9.58**		ppbv		10.0		96	70-130		
Acrylonitrile	**9.19**		ppbv		10.0		92	60-160		
1,1-Dichloroethene	**9.60**		ppbv		10.0		96	70-130		
Methylene chloride	**9.29**		ppbv		10.0		93	70-130		
1,1,2-Trichlorotrifluoroethane (Freon 113)	**9.48**		ppbv		10.0		95	70-130		
Carbon disulfide	**8.93**		ppbv		10.0		89	70-130		
trans-1,2-Dichloroethene	**9.53**		ppbv		10.0		95	70-130		
1,1-Dichloroethane	**10.1**		ppbv		10.0		101	70-130		
Methyl tert-butyl ether	**9.29**		ppbv		10.0		93	70-130		
Isopropyl alcohol	**9.56**		ppbv		10.0		96	70-130		
2-Butanone (MEK)	**9.62**		ppbv		10.0		96	70-130		
cis-1,2-Dichloroethene	**9.64**		ppbv		10.0		96	70-130		
Hexane	**10.4**		ppbv		10.0		104	70-130		
Ethyl acetate	**10.5**		ppbv		10.0		105	70-130		
Chloroform	**9.98**		ppbv		10.0		100	70-130		
Tetrahydrofuran	**9.86**		ppbv		10.0		99	70-130		
1,2-Dichloroethane	**10.1**		ppbv		10.0		101	70-130		
1,1,1-Trichloroethane	**9.89**		ppbv		10.0		99	70-130		
Benzene	**9.91**		ppbv		10.0		99	70-130		
Carbon tetrachloride	**10.2**		ppbv		10.0		102	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1202863 - General Air Prep										
LCS (1202863-BS1)					Prepared & Analyzed: 06-Feb-12					
Cyclohexane	**9.34**		ppbv		10.0		93	70-130		
1,2-Dichloropropane	**10.2**		ppbv		10.0		102	70-130		
Bromodichloromethane	**10.4**		ppbv		10.0		104	70-130		
Trichloroethene	**10.1**		ppbv		10.0		101	70-130		
1,4-Dioxane	**7.55**		ppbv		10.0		76	60-160		
n-Heptane	**10.5**		ppbv		10.0		105	70-130		
4-Methyl-2-pentanone (MIBK)	**10.8**		ppbv		10.0		108	70-130		
cis-1,3-Dichloropropene	**10.1**		ppbv		10.0		101	70-130		
trans-1,3-Dichloropropene	**9.61**		ppbv		10.0		96	70-130		
1,1,2-Trichloroethane	**10.1**		ppbv		10.0		101	70-130		
Toluene	**9.96**		ppbv		10.0		100	70-130		
2-Hexanone (MBK)	**9.58**		ppbv		10.0		96	70-130		
Dibromochloromethane	**10.2**		ppbv		10.0		102	70-130		
1,2-Dibromoethane (EDB)	**9.61**		ppbv		10.0		96	70-130		
Tetrachloroethene	**9.30**		ppbv		10.0		93	70-130		
Chlorobenzene	**9.68**		ppbv		10.0		97	70-130		
1,1,1,2-Tetrachloroethane	**9.78**		ppbv		10.0		98	60-160		
Ethylbenzene	**9.79**		ppbv		10.0		98	70-130		
m,p-Xylene	**19.6**		ppbv		20.0		98	70-130		
Bromoform	**10.4**		ppbv		10.0		104	70-130		
Styrene	**9.54**		ppbv		10.0		95	70-130		
o-Xylene	**10.1**		ppbv		10.0		101	70-130		
1,1,2,2-Tetrachloroethane	**10.5**		ppbv		10.0		105	70-130		
Isopropylbenzene	**9.48**		ppbv		10.0		95	60-160		
1,3,5-Trimethylbenzene	**9.64**		ppbv		10.0		96	70-130		
4-Ethyltoluene	**9.67**		ppbv		10.0		97	70-130		
1,2,4-Trimethylbenzene	**9.59**		ppbv		10.0		96	70-130		
Naphthalene	**10.1**		ppbv		10.0		101	70-160		
1,3-Dichlorobenzene	**9.42**		ppbv		10.0		94	70-130		
Benzyl chloride	**7.86**		ppbv		10.0		79	70-130		
1,4-Dichlorobenzene	**9.22**		ppbv		10.0		92	70-130		
sec-Butylbenzene	**9.90**		ppbv		10.0		99	60-160		
4-Isopropyltoluene	**9.66**		ppbv		10.0		97	60-160		
1,2-Dichlorobenzene	**9.35**		ppbv		10.0		94	70-130		
n-Butylbenzene	**10.1**		ppbv		10.0		101	60-160		
1,2,4-Trichlorobenzene	**8.93**		ppbv		10.0		89	70-130		
Hexachlorobutadiene	**8.76**		ppbv		10.0		88	70-130		
Surrogate: 4-Bromofluorobenzene	*9.88*		ppbv		*10.0*		*99*	*70-130*		
Duplicate (1202863-DUP1)			**Source: SB43107-02**		Prepared & Analyzed: 06-Feb-12					
Propene	< 2.13	U	ppbv	2.13		BRL				30
Dichlorodifluoromethane (Freon12)	< 3.30	U	ppbv	3.30		BRL				30
Chloromethane	< 3.75	U	ppbv	3.75		BRL				30
1,2-Dichlorotetrafluoroethane (Freon 114)	< 3.65	U	ppbv	3.65		BRL				30
Vinyl chloride	< 3.94	U	ppbv	3.94		BRL				30
1,3-Butadiene	< 3.77	U	ppbv	3.77		BRL				30
Bromomethane	< 2.98	U	ppbv	2.98		BRL				30
Chloroethane	< 4.48	U	ppbv	4.48		BRL				30
Acetone	**50.9**		ppbv	4.45		51.1			0.4	30
Trichlorofluoromethane (Freon 11)	< 4.47	U	ppbv	4.47		BRL				30
Ethanol	< 4.04	U	ppbv	4.04		BRL				30
Acrylonitrile	< 3.83	U	ppbv	3.83		BRL				30

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1202863 - General Air Prep										
Duplicate (1202863-DUP1)			**Source: SB43107-02**		Prepared & Analyzed: 06-Feb-12					
1,1-Dichloroethene	< 3.73	U	ppbv	3.73		BRL				30
Methylene chloride	< 4.43	U	ppbv	4.43		BRL				30
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 3.69	U	ppbv	3.69		BRL				30
Carbon disulfide	< 3.72	U	ppbv	3.72		BRL				30
trans-1,2-Dichloroethene	< 2.13	U	ppbv	2.13		BRL				30
1,1-Dichloroethane	< 2.00	U	ppbv	2.00		BRL				30
Methyl tert-butyl ether	< 1.69	U	ppbv	1.69		BRL				30
Isopropyl alcohol	**5.10**		ppbv	2.28		5.20			2	30
2-Butanone (MEK)	< 3.58	U	ppbv	3.58		BRL				30
cis-1,2-Dichloroethene	**3.00**	J	ppbv	1.63		3.10			3	30
Hexane	< 2.17	U	ppbv	2.17		BRL				30
Ethyl acetate	< 2.75	U	ppbv	2.75		BRL				30
Chloroform	< 2.84	U	ppbv	2.84		BRL				30
Tetrahydrofuran	< 2.20	U	ppbv	2.20		BRL				30
1,2-Dichloroethane	< 2.54	U	ppbv	2.54		BRL				30
1,1,1-Trichloroethane	**7.70**		ppbv	1.96		7.50			3	30
Benzene	< 1.61	U	ppbv	1.61		BRL				30
Carbon tetrachloride	< 2.08	U	ppbv	2.08		BRL				30
Cyclohexane	< 1.75	U	ppbv	1.75		BRL				30
1,2-Dichloropropane	< 1.96	U	ppbv	1.96		BRL				30
Bromodichloromethane	< 2.11	U	ppbv	2.11		BRL				30
Trichloroethene	**782**		ppbv	1.78		765			2	30
1,4-Dioxane	< 2.65	U	ppbv	2.65		BRL				30
n-Heptane	< 1.83	U	ppbv	1.83		BRL				30
4-Methyl-2-pentanone (MIBK)	< 2.50	U	ppbv	2.50		BRL				30
cis-1,3-Dichloropropene	< 1.70	U	ppbv	1.70		BRL				30
trans-1,3-Dichloropropene	< 1.49	U	ppbv	1.49		BRL				30
1,1,2-Trichloroethane	< 2.62	U	ppbv	2.62		BRL				30
Toluene	< 1.89	U	ppbv	1.89		BRL				30
2-Hexanone (MBK)	< 1.54	U	ppbv	1.54		BRL				30
Dibromochloromethane	< 1.84	U	ppbv	1.84		BRL				30
1,2-Dibromoethane (EDB)	< 3.05	U	ppbv	3.05		BRL				30
Tetrachloroethene	**3.00**	J	ppbv	2.01		3.00			0	30
Chlorobenzene	< 2.90	U	ppbv	2.90		BRL				30
1,1,1,2-Tetrachloroethane	< 2.27	U	ppbv	2.27		BRL				30
Ethylbenzene	< 1.95	U	ppbv	1.95		BRL				30
m,p-Xylene	< 4.94	U	ppbv	4.94		BRL				30
Bromoform	< 2.22	U	ppbv	2.22		BRL				30
Styrene	< 2.47	U	ppbv	2.47		BRL				30
o-Xylene	< 3.05	U	ppbv	3.05		BRL				30
1,1,2,2-Tetrachloroethane	< 2.73	U	ppbv	2.73		BRL				30
Isopropylbenzene	< 2.53	U	ppbv	2.53		BRL				30
1,3,5-Trimethylbenzene	**3.10**	J	ppbv	2.92		3.00			3	30
4-Ethyltoluene	**2.70**	J	ppbv	2.37		2.60			4	30
1,2,4-Trimethylbenzene	**7.40**		ppbv	1.67		7.10			4	30
Naphthalene	< 1.73	U	ppbv	1.73		BRL				30
1,3-Dichlorobenzene	< 2.73	U	ppbv	2.73		BRL				30
Benzyl chloride	< 1.78	U	ppbv	1.78		BRL				30
1,4-Dichlorobenzene	< 2.15	U	ppbv	2.15		BRL				30
sec-Butylbenzene	< 2.43	U	ppbv	2.43		BRL				30
4-Isopropyltoluene	< 2.39	U	ppbv	2.39		BRL				30
1,2-Dichlorobenzene	< 2.32	U	ppbv	2.32		BRL				30

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1202863 - General Air Prep										
Duplicate (1202863-DUP1)			**Source: SB43107-02**			Prepared & Analyzed: 06-Feb-12				
n-Butylbenzene	< 2.44	U	ppbv	2.44		BRL				30
1,2,4-Trichlorobenzene	< 1.84	U	ppbv	1.84		BRL				30
Hexachlorobutadiene	< 2.34	U	ppbv	2.34		BRL				30
Surrogate: 4-Bromofluorobenzene	*10.1*		ppbv		*10.0*		*101*	*70-130*		

Certificate of Analysis

Container Type: Summa canister 3.2 liter **Date of Analysis:** 1/20/2012

Canister ID: 243 **Analyst's Initials:** KG

The sampling device detailed above has been tested and is certified to the limits for the target compounds as listed below.

Analyte	*Quantitation Limit (ppbv)*	*Analyte*	*Quantitation Limit (ppbv)*
Acetone	<0.2	Ethanol	<0.2
Acrylonitrile	<0.2	4-Isopropyl Toluene	<0.2
Benzene	<0.2	Ethyl acetate	<0.2
Benzyl chloride	<0.2	Ethylbenzene	<0.2
Bromodichloromethane	<0.2	4-Ethyltoluene	<0.2
Bromoform	<0.2	n-Heptane	<0.2
Bromomethane	<0.2	Hexachlorobutadiene	<0.2
1,3-Butadiene	<0.2	Hexane	<0.2
2-Butanone (MEK)	<0.2	2-Hexanone (MBK)	<0.2
Carbon disulfide	<0.2	Isopropyl alcohol	<0.2
Carbon tetrachloride	<0.2	4-Methyl-2-pentanone (MIBK)	<0.2
Chlorobenzene	<0.2	Methyl tert-butyl ether	<0.2
Chloroethane	<0.2	Methylene chloride	<0.2
1,4-Dioxane	<0.2	Naphthalene	<0.2
n-Butylbenzene	<0.2	1,1,1,2-Tetrachlorethane	<0.2
Chloroform	<0.2	Propene	<0.2
Chloromethane	<0.2	Styrene	<0.2
Cyclohexane	<0.2	1,1,2,2-Tetrachloroethane	<0.2
Dibromochloromethane	<0.2	Tetrachloroethene	<0.2
1,2-Dibromoethane (EDB)	<0.2	Tetrahydrofuran	<0.2
1,2-Dichlorobenzene	<0.2	Toluene	<0.2
1,3-Dichlorobenzene	<0.2	1,2,4-Trichlorobenzene	<0.2
1,4-Dichlorobenzene	<0.2	1,1,1-Trichloroethane	<0.2
Dichlorodifluoromethane (Freon12)	<0.2	1,1,2-Trichloroethane	<0.2
1,1-Dichloroethane	<0.2	Trichloroethene	<0.2
1,2-Dichloroethane	<0.2	1,1,2-Trichlorotrifluoroethane (Freon 113)	<0.2
1,1-Dichloroethene	<0.2	Trichlorofluoromethane (Freon 11)	<0.2
cis-1,2-Dichloroethene	<0.2	1,2,4-Trimethylbenzene	<0.2
trans-1,2-Dichloroethene	<0.2	1,3,5-Trimethylbenzene	<0.2
1,2-Dichloropropane	<0.2	Vinyl chloride	<0.2
cis-1,3-Dichloropropene	<0.2	m,p-Xylene	<0.2
trans-1,3-Dichloropropene	<0.2	o-Xylene	<0.2
1,2-Dichlorotetrafluoroethane (Freon 114)	<0.2	sec-Butylbenzene	<0.2
Isopropylbenzene	<0.2		

This certification applies to the following sampling devices:

134

Certificate of Analysis

Container Type: Summa canister 3.2 liter **Date of Analysis:** 12/22/2011

Canister ID: 4636 **Analyst's Initials:** KG

The sampling device detailed above has been tested and is certified to the limits for the target compounds as listed below.

Analyte	*Quantitation Limit (ppbv)*	*Analyte*	*Quantitation Limit (ppbv)*
Acetone	<0.2	Ethanol	<0.2
Acrylonitrile	<0.2	4-Isopropyl Toluene	<0.2
Benzene	<0.2	Ethyl acetate	<0.2
Benzyl chloride	<0.2	Ethylbenzene	<0.2
Bromodichloromethane	<0.2	4-Ethyltoluene	<0.2
Bromoform	<0.2	n-Heptane	<0.2
Bromomethane	<0.2	Hexachlorobutadiene	<0.2
1,3-Butadiene	<0.2	Hexane	<0.2
2-Butanone (MEK)	<0.2	2-Hexanone (MBK)	<0.2
Carbon disulfide	<0.2	Isopropyl alcohol	<0.2
Carbon tetrachloride	<0.2	4-Methyl-2-pentanone (MIBK)	<0.2
Chlorobenzene	<0.2	Methyl tert-butyl ether	<0.2
Chloroethane	<0.2	Methylene chloride	<0.2
1,4-Dioxane	<0.2	Naphthalene	<0.2
n-Butylbenzene	<0.2	1,1,1,2-Tetrachlorethane	<0.2
Chloroform	<0.2	Propene	<0.2
Chloromethane	<0.2	Styrene	<0.2
Cyclohexane	<0.2	1,1,2,2-Tetrachloroethane	<0.2
Dibromochloromethane	<0.2	Tetrachloroethene	<0.2
1,2-Dibromoethane (EDB)	<0.2	Tetrahydrofuran	<0.2
1,2-Dichlorobenzene	<0.2	Toluene	<0.2
1,3-Dichlorobenzene	<0.2	1,2,4-Trichlorobenzene	<0.2
1,4-Dichlorobenzene	<0.2	1,1,1-Trichloroethane	<0.2
Dichlorodifluoromethane (Freon12)	<0.2	1,1,2-Trichloroethane	<0.2
1,1-Dichloroethane	<0.2	Trichloroethene	<0.2
1,2-Dichloroethane	<0.2	1,1,2-Trichlorotrifluoroethane (Freon 113)	<0.2
1,1-Dichloroethene	<0.2	Trichlorofluoromethane (Freon 11)	<0.2
cis-1,2-Dichloroethene	<0.2	1,2,4-Trimethylbenzene	<0.2
trans-1,2-Dichloroethene	<0.2	1,3,5-Trimethylbenzene	<0.2
1,2-Dichloropropane	<0.2	Vinyl chloride	<0.2
cis-1,3-Dichloropropene	<0.2	m,p-Xylene	<0.2
trans-1,3-Dichloropropene	<0.2	o-Xylene	<0.2
1,2-Dichlorotetrafluoroethane (Freon 114)	<0.2	sec-Butylbenzene	<0.2
Isopropylbenzene	<0.2		

This certification applies to the following sampling devices:

1078

1078

Certificate of Analysis

Container Type: Summa canister 6 liter **Date of Analysis:** 1/18/2012

Canister ID: 488 **Analyst's Initials:** KG

The sampling device detailed above has been tested and is certified to the limits for the target compounds as listed below.

Analyte	*Quantitation Limit (ppbv)*	*Analyte*	*Quantitation Limit (ppbv)*
Acetone	<0.2	Ethanol	<0.2
Acrylonitrile	<0.2	4-Isopropyl Toluene	<0.2
Benzene	<0.2	Ethyl acetate	<0.2
Benzyl chloride	<0.2	Ethylbenzene	<0.2
Bromodichloromethane	<0.2	4-Ethyltoluene	<0.2
Bromoform	<0.2	n-Heptane	<0.2
Bromomethane	<0.2	Hexachlorobutadiene	<0.2
1,3-Butadiene	<0.2	Hexane	<0.2
2-Butanone (MEK)	<0.2	2-Hexanone (MBK)	<0.2
Carbon disulfide	<0.2	Isopropyl alcohol	<0.2
Carbon tetrachloride	<0.2	4-Methyl-2-pentanone (MIBK)	<0.2
Chlorobenzene	<0.2	Methyl tert-butyl ether	<0.2
Chloroethane	<0.2	Methylene chloride	<0.2
1,4-Dioxane	<0.2	Naphthalene	<0.2
n-Butylbenzene	<0.2	1,1,1,2-Tetrachlorethane	<0.2
Chloroform	<0.2	Propene	<0.2
Chloromethane	<0.2	Styrene	<0.2
Cyclohexane	<0.2	1,1,2,2-Tetrachloroethane	<0.2
Dibromochloromethane	<0.2	Tetrachloroethene	<0.2
1,2-Dibromoethane (EDB)	<0.2	Tetrahydrofuran	<0.2
1,2-Dichlorobenzene	<0.2	Toluene	<0.2
1,3-Dichlorobenzene	<0.2	1,2,4-Trichlorobenzene	<0.2
1,4-Dichlorobenzene	<0.2	1,1,1-Trichloroethane	<0.2
Dichlorodifluoromethane (Freon12)	<0.2	1,1,2-Trichloroethane	<0.2
1,1-Dichloroethane	<0.2	Trichloroethene	<0.2
1,2-Dichloroethane	<0.2	1,1,2-Trichlorotrifluoroethane (Freon 113)	<0.2
1,1-Dichloroethene	<0.2	Trichlorofluoromethane (Freon 11)	<0.2
cis-1,2-Dichloroethene	<0.2	1,2,4-Trimethylbenzene	<0.2
trans-1,2-Dichloroethene	<0.2	1,3,5-Trimethylbenzene	<0.2
1,2-Dichloropropane	<0.2	Vinyl chloride	<0.2
cis-1,3-Dichloropropene	<0.2	m,p-Xylene	<0.2
trans-1,3-Dichloropropene	<0.2	o-Xylene	<0.2
1,2-Dichlorotetrafluoroethane (Freon 114)	<0.2	sec-Butylbenzene	<0.2
Isopropylbenzene	<0.2		

This certification applies to the following sampling devices:

1342

4629

488

7633

Certificate of Analysis

Container Type: Summa canister 3.2 liter **Date of Analysis:** 1/6/2012

Canister ID: 5581 **Analyst's Initials:** KG

The sampling device detailed above has been tested and is certified to the limits for the target compounds as listed below.

Analyte	*Quantitation Limit (ppbv)*	*Analyte*	*Quantitation Limit (ppbv)*
Acetone	<0.2	Ethanol	<0.2
Acrylonitrile	<0.2	4-Isopropyl Toluene	<0.2
Benzene	<0.2	Ethyl acetate	<0.2
Benzyl chloride	<0.2	Ethylbenzene	<0.2
Bromodichloromethane	<0.2	4-Ethyltoluene	<0.2
Bromoform	<0.2	n-Heptane	<0.2
Bromomethane	<0.2	Hexachlorobutadiene	<0.2
1,3-Butadiene	<0.2	Hexane	<0.2
2-Butanone (MEK)	<0.2	2-Hexanone (MBK)	<0.2
Carbon disulfide	<0.2	Isopropyl alcohol	<0.2
Carbon tetrachloride	<0.2	4-Methyl-2-pentanone (MIBK)	<0.2
Chlorobenzene	<0.2	Methyl tert-butyl ether	<0.2
Chloroethane	<0.2	Methylene chloride	<0.2
1,4-Dioxane	<0.2	Naphthalene	<0.2
n-Butylbenzene	<0.2	1,1,1,2-Tetrachlorethane	<0.2
Chloroform	<0.2	Propene	<0.2
Chloromethane	<0.2	Styrene	<0.2
Cyclohexane	<0.2	1,1,2,2-Tetrachloroethane	<0.2
Dibromochloromethane	<0.2	Tetrachloroethene	<0.2
1,2-Dibromoethane (EDB)	<0.2	Tetrahydrofuran	<0.2
1,2-Dichlorobenzene	<0.2	Toluene	<0.2
1,3-Dichlorobenzene	<0.2	1,2,4-Trichlorobenzene	<0.2
1,4-Dichlorobenzene	<0.2	1,1,1-Trichloroethane	<0.2
Dichlorodifluoromethane (Freon12)	<0.2	1,1,2-Trichloroethane	<0.2
1,1-Dichloroethane	<0.2	Trichloroethene	<0.2
1,2-Dichloroethane	<0.2	1,1,2-Trichlorotrifluoroethane (Freon 113)	<0.2
1,1-Dichloroethene	<0.2	Trichlorofluoromethane (Freon 11)	<0.2
cis-1,2-Dichloroethene	<0.2	1,2,4-Trimethylbenzene	<0.2
trans-1,2-Dichloroethene	<0.2	1,3,5-Trimethylbenzene	<0.2
1,2-Dichloropropane	<0.2	Vinyl chloride	<0.2
cis-1,3-Dichloropropene	<0.2	m,p-Xylene	<0.2
trans-1,3-Dichloropropene	<0.2	o-Xylene	<0.2
1,2-Dichlorotetrafluoroethane (Freon 114)	<0.2	sec-Butylbenzene	<0.2
Isopropylbenzene	<0.2		

This certification applies to the following sampling devices:

164

Notes and Definitions

GS1	Sample dilution required for high concentration of target analytes to be within the instrument calibration range.
J	Detected above the Method Detection Limit but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
U	Analyte included in the analysis, but not detected at or above the MDL.
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference

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

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

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

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

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

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

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

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

Validated by:
June O'Connor

SB 43107

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

Chain of Custody Record/Field Test Data Sheets for Air Analyses

Page 1 of 1

Special Handling:
☑ Standard TAT - 7 to 10 business days
☐ Rush TAT - Date Needed: _____

· All TATs subject to laboratory approval.
· Min. 24-hour notification needed for rushes.

Report To: OTO	**Invoice To:** OTO	**Project No.:** 1753-03-01	
293 Bridge St Suite 500		**Site Name:** Lunt Silversmith	
Springfield, MA 01103		**Location:** Greenfield **State:** MA	
Tel #: 413-788-6222	**Attn:** Mary [redacted]	**Sampler(s):** B. Thompson	
Project Manager: Val Tillinghast	**P.O. No.:** **RQN:**		

Can ID	Can Size (L)	Outgoing Canister Pressure ("Hg) (Lab)	Incoming Canister Pressure ("Hg) (Lab)	Flow Reg. ID	Flow Controller Readout (ml/min)	Lab Id:	Sample Id:	Sample Date(s)	Time Start (24 hr clock)	Time Stop (24 hr clock)	Canister Pressure in Field ("Hg) (Start)	Canister Pressure in Field ("Hg) (Stop)	Interior Temp. (F) (Start)	Interior Temp. (F) (Stop)	Analysis: TO-15	Matrix: Indoor /Ambient Air	Matrix: Soil Gas	Check box if canister is returned unused
				LABORATORY USE ONLY														
0164	3.2	-30		E26	80.6	43107-01	SG-4	1/26/12	1535	1605	30	0	50	50	X		X	
0134	3.2	-30		1316	80.1	-02	SG-9	1/26/12	1615	1645	29	0	50	50	X		X	
1078	3.2	-30		54	80.7	-03	SG-10	1/27/12	0840	0910	29	0	50	50	X		X	
0131	3.2	-30		40	80.4	-04	SG-11	1/27/12	0914	0944	29	0	50	50	X		X	
4629	6	-30		2967	40.4	-05	IA-1	1/26/12	1005	1205	30	4	50	50	X	X		
1342	6	-30		2984	40.3	-06	IA-2		1010	1210	28	2	40	40	X	X		
0488	6	-30		2847	40.7	-07	IA-3		1016	1217	30	2	40	40	X	X		
7633	6	-30		2857	40.7	-08	IA-4		1021	1023	27	2	40	40	X	X		

Date of Request:	1/18/12
Requested by:	Val Tillinghast
Company:	OTO
Location:	Springfield Ma
Date Needed:	1/25/12
Total # Canisters:	8
# LL Canisters:	0
# Flow Controllers:	8
Flow Rate/Setting:	4@30min 4@2hrs
Order #:	21274

I attest that all media relinquished from Spectrum Analytical, Inc. have been received in good working condition, based on visual observation, and agree to the terms and conditions as listed on the back of this document.

Signed: [signature] Date: 1-25-12

Printed: Yvonne Provost

QA/QC Reporting Level:

☑ Standard ☐ NY ASP A* ☐ TIER II* ☑ MA DEP CAM
☐ NO QC ☐ NY ASP B* ☐ TIER IV* ☐ CT DPH RCP
☐ DQA* * additional charges may apply contact SA's QA Department for further info.

Client Use	Ambient Temperature (Fahrenheit)	Ambient Pressure (inches of Hg)
Start		
Stop		

Special Instructions/QC Requirements & Comments:

Please contact SA's Air Department immediately at (800) 789-9115 if you experience any technical difficulties or suspect any QC issue(s) with air media.

Relinquished by:	Received by:	Date:	Time:
[signature]	[signature]	1-30-12	900
		1-30-12	10:57

☐ EDD Format
☑ E-mail Results to tillinghast@oto-env.com

Report Date:
18-Apr-12 17:36

☑ Final Report
☐ Re-Issued Report
☐ Revised Report

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

Laboratory Report

O'Reilly, Talbot & Okun
293 Bridge Street; Suite 500
Springfield, MA 01103
Attn: Val Tillinghast

Project: Lunt Silversmith-Greenfield, MA
Project #: 1753-03-01

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
SB46956-01	OF-1	Ground Water	11-Apr-12 09:10	11-Apr-12 12:25
SB46956-02	OF-2	Ground Water	11-Apr-12 09:16	11-Apr-12 12:25

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

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

Authorized by:

Nicole Leja
Laboratory Director

Spectrum Analytical holds certification in the State of Massachusetts for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of Massachusetts does not offer certification for all analytes.
Please note that this report contains 13 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Spectrum Analytical, Inc.

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

MassDEP Analytical Protocol Certification Form

Laboratory Name: Spectrum Analytical, Inc.	**Project #:** 1753-03-01
Project Location: Lunt Silversmith-Greenfield, MA	**RTN:**
This form provides certifications for the following data set:	SB46956-01 through SB46956-02
Matrices: Ground Water	

CAM Protocol

✓ 8260 VOC CAM II A	7470/7471 Hg CAM III B	MassDEP VPH CAM IV A	8081 Pesticides CAM V B	7196 Hex Cr CAM VI B	MassDEP APH CAM IX A
8270 SVOC CAM II B	7010 Metals CAM III C	MassDEP EPH CAM IV B	8151 Herbicides CAM V C	8330 Explosives CAM VIII A	TO-15 VOC CAM IX B
6010 Metals CAM III A	6020 Metals CAM III D	8082 PCB CAM V A	9012 Total Cyanide/PAC CAM VI A	9014 Total Cyanide/PAC CAM VI A	6860 Perchlorate CAM VIII B

Affirmative responses to questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain of Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	✓ Yes	No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	✓ Yes	No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	✓ Yes	No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	✓ Yes	No
E	a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes Yes	No No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to questions A through E)?	✓ Yes	No

Responses to questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	✓ Yes	No

<u>Data User Note:</u> Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.

H	Were all QC performance standards specified in the CAM protocol(s) achieved?	✓ Yes	No
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	✓ Yes	No

All negative responses are addressed in a case narrative on the cover page of this report.

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

Nicole Leja
Laboratory Director
Date: 4/18/2012

CASE NARRATIVE:

The samples were received 6.0 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/- 1.0 degrees Celsius was used immediately upon receipt of the samples.

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

MADEP has published a list of analytical methods (CAM) which provides a series of recommended protocols for the acquisition, analysis and reporting of analytical data in support of MCP decisions. "Presumptive Certainty" can be established only for those methods published by the MADEP in the MCP CAM. The compounds and/or elements reported were specifically requested by the client on the Chain of Custody and in some cases may not include the full analyte list as defined in the method. Regulatory limits may not be achieved if specific method and/or technique was not requested on the Chain of Custody.

According to WSC-CAM 5/2009 Rev.1, Table 11 A-1, recovery for some VOC analytes have been deemed potentially difficult. Although they may still be within the recommended recovery range, a range has been set based on historical control limits.

Some target analytes which are not listed as exceptions in the Summary of CAM Reporting Limits may exceed the recommended RL based on sample initial volume or weight provided, % moisture content, or responsiveness of a particular analyte to purge and trap instrumentation.

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

SW846 8260C

Calibration:

1204014

Analyte quantified by quadratic equation type calibration.

Naphthalene

This affected the following samples:

1208775-BLK1
1208775-BS1
1208775-BSD1
OF-1
OF-2
S204402-CCV1

Laboratory Control Samples:

1208775 BS/BSD

1,4-Dioxane percent recoveries (133/136) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

OF-1
OF-2

2-Butanone (MEK) percent recoveries (110/132) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

OF-1
OF-2

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
OF-1	1753-03-01	Ground Water	11-Apr-12 09:10	11-Apr-12
SB46956-01				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds													
Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.6	1	SW846 8260C	18-Apr-12	18-Apr-12	eq/	1208775	
67-64-1	Acetone	< 10.0		µg/l	10.0	2.6	1	"	"	"	"	"	
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	
71-43-2	Benzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
74-83-9	Bromomethane	< 2.0		µg/l	2.0	1.1	1	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	1.7	1	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-00-3	Chloroethane	< 2.0		µg/l	2.0	1.0	1	"	"	"	"	"	
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
74-87-3	Chloromethane	< 2.0		µg/l	2.0	1.5	1	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	0.5	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
OF-1	1753-03-01	Ground Water	11-Apr-12 09:10	11-Apr-12
SB46956-01				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds													
Prepared by method SW846 5030 Water MS													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.6	1	SW846 8260C	18-Apr-12	18-Apr-12	eq/	1208775	
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.9	1	"	"	"	"	"	
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.7	1	"	"	"	"	"	
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
100-42-5	Styrene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	
127-18-4	Tetrachloroethene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
108-88-3	Toluene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
79-01-6	Trichloroethene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	1.6	1	"	"	"	"	"	
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.9	1	"	"	"	"	"	
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	1.4	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	8.6	1	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	14.0	1	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-butene	< 5.0		µg/l	5.0	0.8	1	"	"	"	"	"	
64-17-5	Ethanol	< 400		µg/l	400	35.7	1	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*99*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*104*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*99*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*100*			*70-130 %*			"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
OF-2	1753-03-01	Ground Water	11-Apr-12 09:16	11-Apr-12
SB46956-02				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds													
Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.6	1	SW846 8260C	18-Apr-12	18-Apr-12	eq/	1208775	
67-64-1	Acetone	< 10.0		µg/l	10.0	2.6	1	"	"	"	"	"	
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	
71-43-2	Benzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
74-83-9	Bromomethane	< 2.0		µg/l	2.0	1.1	1	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	1.7	1	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-00-3	Chloroethane	< 2.0		µg/l	2.0	1.0	1	"	"	"	"	"	
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
74-87-3	Chloromethane	< 2.0		µg/l	2.0	1.5	1	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	0.5	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
OF-2 SB46956-02	1753-03-01	Ground Water	11-Apr-12 09:16	11-Apr-12

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds Prepared by method SW846 5030 Water MS													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.6	1	SW846 8260C	18-Apr-12	18-Apr-12	eq/	1208775	
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.9	1	"	"	"	"	"	
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.7	1	"	"	"	"	"	
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
100-42-5	Styrene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	
127-18-4	Tetrachloroethene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
108-88-3	Toluene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
79-01-6	Trichloroethene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	1.6	1	"	"	"	"	"	
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.9	1	"	"	"	"	"	
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	1.4	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	8.6	1	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	14.0	1	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-butene	< 5.0		µg/l	5.0	0.8	1	"	"	"	"	"	
64-17-5	Ethanol	< 400		µg/l	400	35.7	1	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*98*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*105*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*100*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*100*			*70-130 %*			"	"	"	"	"	

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1208775 - SW846 5030 Water MS										
Blank (1208775-BLK1)					Prepared & Analyzed: 18-Apr-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0						
Acetone	< 10.0		µg/l	10.0						
Acrylonitrile	< 0.5		µg/l	0.5						
Benzene	< 1.0		µg/l	1.0						
Bromobenzene	< 1.0		µg/l	1.0						
Bromochloromethane	< 1.0		µg/l	1.0						
Bromodichloromethane	< 0.5		µg/l	0.5						
Bromoform	< 1.0		µg/l	1.0						
Bromomethane	< 2.0		µg/l	2.0						
2-Butanone (MEK)	< 10.0		µg/l	10.0						
n-Butylbenzene	< 1.0		µg/l	1.0						
sec-Butylbenzene	< 1.0		µg/l	1.0						
tert-Butylbenzene	< 1.0		µg/l	1.0						
Carbon disulfide	< 2.0		µg/l	2.0						
Carbon tetrachloride	< 1.0		µg/l	1.0						
Chlorobenzene	< 1.0		µg/l	1.0						
Chloroethane	< 2.0		µg/l	2.0						
Chloroform	< 1.0		µg/l	1.0						
Chloromethane	< 2.0		µg/l	2.0						
2-Chlorotoluene	< 1.0		µg/l	1.0						
4-Chlorotoluene	< 1.0		µg/l	1.0						
1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0						
Dibromochloromethane	< 0.5		µg/l	0.5						
1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5						
Dibromomethane	< 1.0		µg/l	1.0						
1,2-Dichlorobenzene	< 1.0		µg/l	1.0						
1,3-Dichlorobenzene	< 1.0		µg/l	1.0						
1,4-Dichlorobenzene	< 1.0		µg/l	1.0						
Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0						
1,1-Dichloroethane	< 1.0		µg/l	1.0						
1,2-Dichloroethane	< 1.0		µg/l	1.0						
1,1-Dichloroethene	< 1.0		µg/l	1.0						
cis-1,2-Dichloroethene	< 1.0		µg/l	1.0						
trans-1,2-Dichloroethene	< 1.0		µg/l	1.0						
1,2-Dichloropropane	< 1.0		µg/l	1.0						
1,3-Dichloropropane	< 1.0		µg/l	1.0						
2,2-Dichloropropane	< 1.0		µg/l	1.0						
1,1-Dichloropropene	< 1.0		µg/l	1.0						
cis-1,3-Dichloropropene	< 0.5		µg/l	0.5						
trans-1,3-Dichloropropene	< 0.5		µg/l	0.5						
Ethylbenzene	< 1.0		µg/l	1.0						
Hexachlorobutadiene	< 0.5		µg/l	0.5						
2-Hexanone (MBK)	< 10.0		µg/l	10.0						
Isopropylbenzene	< 1.0		µg/l	1.0						
4-Isopropyltoluene	< 1.0		µg/l	1.0						
Methyl tert-butyl ether	< 1.0		µg/l	1.0						
4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0						
Methylene chloride	< 2.0		µg/l	2.0						
Naphthalene	< 1.0		µg/l	1.0						
n-Propylbenzene	< 1.0		µg/l	1.0						
Styrene	< 1.0		µg/l	1.0						
1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1208775 - SW846 5030 Water MS										
Blank (1208775-BLK1)					Prepared & Analyzed: 18-Apr-12					
1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5						
Tetrachloroethene	< 1.0		µg/l	1.0						
Toluene	< 1.0		µg/l	1.0						
1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0						
1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0						
1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0						
1,1,1-Trichloroethane	< 1.0		µg/l	1.0						
1,1,2-Trichloroethane	< 1.0		µg/l	1.0						
Trichloroethene	< 1.0		µg/l	1.0						
Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0						
1,2,3-Trichloropropane	< 1.0		µg/l	1.0						
1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0						
1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0						
Vinyl chloride	< 1.0		µg/l	1.0						
m,p-Xylene	< 2.0		µg/l	2.0						
o-Xylene	< 1.0		µg/l	1.0						
Tetrahydrofuran	< 2.0		µg/l	2.0						
Ethyl ether	< 1.0		µg/l	1.0						
Tert-amyl methyl ether	< 1.0		µg/l	1.0						
Ethyl tert-butyl ether	< 1.0		µg/l	1.0						
Di-isopropyl ether	< 1.0		µg/l	1.0						
Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0						
1,4-Dioxane	< 20.0		µg/l	20.0						
trans-1,4-Dichloro-2-butene	< 5.0		µg/l	5.0						
Ethanol	< 400		µg/l	400						
Surrogate: 4-Bromofluorobenzene	*48.8*		µg/l		*50.0*		*98*	*70-130*		
Surrogate: Toluene-d8	*52.4*		µg/l		*50.0*		*105*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*49.8*		µg/l		*50.0*		*100*	*70-130*		
Surrogate: Dibromofluoromethane	*50.4*		µg/l		*50.0*		*101*	*70-130*		
LCS (1208775-BS1)					Prepared & Analyzed: 18-Apr-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**20.9**		µg/l		20.0		104	70-130		
Acetone	**24.1**		µg/l		20.0		121	70-130		
Acrylonitrile	**24.2**		µg/l		20.0		121	70-130		
Benzene	**22.5**		µg/l		20.0		113	70-130		
Bromobenzene	**20.3**		µg/l		20.0		101	70-130		
Bromochloromethane	**21.9**		µg/l		20.0		110	70-130		
Bromodichloromethane	**20.4**		µg/l		20.0		102	70-130		
Bromoform	**20.2**		µg/l		20.0		101	70-130		
Bromomethane	**23.2**		µg/l		20.0		116	70-130		
2-Butanone (MEK)	**22.0**		µg/l		20.0		110	70-130		
n-Butylbenzene	**18.2**		µg/l		20.0		91	70-130		
sec-Butylbenzene	**20.7**		µg/l		20.0		103	70-130		
tert-Butylbenzene	**20.3**		µg/l		20.0		101	70-130		
Carbon disulfide	**18.5**		µg/l		20.0		92	70-130		
Carbon tetrachloride	**17.2**		µg/l		20.0		86	70-130		
Chlorobenzene	**21.1**		µg/l		20.0		106	70-130		
Chloroethane	**20.0**		µg/l		20.0		100	70-130		
Chloroform	**21.6**		µg/l		20.0		108	70-130		
Chloromethane	**20.2**		µg/l		20.0		101	70-130		
2-Chlorotoluene	**20.8**		µg/l		20.0		104	70-130		
4-Chlorotoluene	**20.3**		µg/l		20.0		101	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1208775 - SW846 5030 Water MS										
LCS (1208775-BS1)					Prepared & Analyzed: 18-Apr-12					
1,2-Dibromo-3-chloropropane	**21.7**		µg/l		20.0		108	70-130		
Dibromochloromethane	**21.2**		µg/l		20.0		106	70-130		
1,2-Dibromoethane (EDB)	**23.3**		µg/l		20.0		117	70-130		
Dibromomethane	**22.7**		µg/l		20.0		113	70-130		
1,2-Dichlorobenzene	**20.0**		µg/l		20.0		100	70-130		
1,3-Dichlorobenzene	**21.2**		µg/l		20.0		106	70-130		
1,4-Dichlorobenzene	**19.6**		µg/l		20.0		98	70-130		
Dichlorodifluoromethane (Freon12)	**19.4**		µg/l		20.0		97	70-130		
1,1-Dichloroethane	**19.5**		µg/l		20.0		98	70-130		
1,2-Dichloroethane	**21.7**		µg/l		20.0		108	70-130		
1,1-Dichloroethene	**19.8**		µg/l		20.0		99	70-130		
cis-1,2-Dichloroethene	**21.3**		µg/l		20.0		106	70-130		
trans-1,2-Dichloroethene	**20.2**		µg/l		20.0		101	70-130		
1,2-Dichloropropane	**22.1**		µg/l		20.0		111	70-130		
1,3-Dichloropropane	**23.2**		µg/l		20.0		116	70-130		
2,2-Dichloropropane	**16.9**		µg/l		20.0		84	70-130		
1,1-Dichloropropene	**20.3**		µg/l		20.0		101	70-130		
cis-1,3-Dichloropropene	**19.1**		µg/l		20.0		95	70-130		
trans-1,3-Dichloropropene	**18.8**		µg/l		20.0		94	70-130		
Ethylbenzene	**20.6**		µg/l		20.0		103	70-130		
Hexachlorobutadiene	**18.6**		µg/l		20.0		93	70-130		
2-Hexanone (MBK)	**23.5**		µg/l		20.0		118	70-130		
Isopropylbenzene	**20.8**		µg/l		20.0		104	70-130		
4-Isopropyltoluene	**18.9**		µg/l		20.0		95	70-130		
Methyl tert-butyl ether	**19.5**		µg/l		20.0		98	70-130		
4-Methyl-2-pentanone (MIBK)	**22.6**		µg/l		20.0		113	70-130		
Methylene chloride	**19.6**		µg/l		20.0		98	70-130		
Naphthalene	**21.8**		µg/l		20.0		109	70-130		
n-Propylbenzene	**20.2**		µg/l		20.0		101	70-130		
Styrene	**20.3**		µg/l		20.0		102	70-130		
1,1,1,2-Tetrachloroethane	**19.4**		µg/l		20.0		97	70-130		
1,1,2,2-Tetrachloroethane	**24.6**		µg/l		20.0		123	70-130		
Tetrachloroethene	**20.9**		µg/l		20.0		104	70-130		
Toluene	**22.6**		µg/l		20.0		113	70-130		
1,2,3-Trichlorobenzene	**19.7**		µg/l		20.0		98	70-130		
1,2,4-Trichlorobenzene	**17.6**		µg/l		20.0		88	70-130		
1,3,5-Trichlorobenzene	**18.2**		µg/l		20.0		91	70-130		
1,1,1-Trichloroethane	**18.8**		µg/l		20.0		94	70-130		
1,1,2-Trichloroethane	**23.4**		µg/l		20.0		117	70-130		
Trichloroethene	**21.4**		µg/l		20.0		107	70-130		
Trichlorofluoromethane (Freon 11)	**21.9**		µg/l		20.0		110	70-130		
1,2,3-Trichloropropane	**24.6**		µg/l		20.0		123	70-130		
1,2,4-Trimethylbenzene	**20.7**		µg/l		20.0		104	70-130		
1,3,5-Trimethylbenzene	**20.5**		µg/l		20.0		102	70-130		
Vinyl chloride	**19.1**		µg/l		20.0		96	70-130		
m,p-Xylene	**40.7**		µg/l		40.0		102	70-130		
o-Xylene	**20.8**		µg/l		20.0		104	70-130		
Tetrahydrofuran	**24.0**		µg/l		20.0		120	70-130		
Ethyl ether	**20.4**		µg/l		20.0		102	70-130		
Tert-amyl methyl ether	**19.7**		µg/l		20.0		99	70-130		
Ethyl tert-butyl ether	**19.2**		µg/l		20.0		96	70-130		
Di-isopropyl ether	**18.1**		µg/l		20.0		91	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1208775 - SW846 5030 Water MS										
LCS (1208775-BS1)						Prepared & Analyzed: 18-Apr-12				
Tert-Butanol / butyl alcohol	**231**		µg/l		200		115	70-130		
1,4-Dioxane	**267**		µg/l		200		133	70-130		
trans-1,4-Dichloro-2-butene	**18.1**		µg/l		20.0		91	70-130		
Ethanol	**482**		µg/l		400		120	70-130		
Surrogate: 4-Bromofluorobenzene	*51.5*		µg/l		*50.0*		*103*	*70-130*		
Surrogate: Toluene-d8	*52.2*		µg/l		*50.0*		*104*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*47.8*		µg/l		*50.0*		*96*	*70-130*		
Surrogate: Dibromofluoromethane	*50.7*		µg/l		*50.0*		*101*	*70-130*		
LCS Dup (1208775-BSD1)						Prepared & Analyzed: 18-Apr-12				
1,1,2-Trichlorotrifluoroethane (Freon 113)	**20.6**		µg/l		20.0		103	70-130	1	25
Acetone	**23.6**		µg/l		20.0		118	70-130	2	50
Acrylonitrile	**23.8**		µg/l		20.0		119	70-130	2	25
Benzene	**22.0**		µg/l		20.0		110	70-130	2	25
Bromobenzene	**19.9**		µg/l		20.0		100	70-130	2	25
Bromochloromethane	**21.9**		µg/l		20.0		109	70-130	0.2	25
Bromodichloromethane	**20.5**		µg/l		20.0		102	70-130	0.5	25
Bromoform	**19.5**		µg/l		20.0		98	70-130	3	25
Bromomethane	**24.3**		µg/l		20.0		121	70-130	5	50
2-Butanone (MEK)	**26.4**		µg/l		20.0		132	70-130	18	50
n-Butylbenzene	**17.9**		µg/l		20.0		89	70-130	2	25
sec-Butylbenzene	**19.7**		µg/l		20.0		99	70-130	5	25
tert-Butylbenzene	**19.8**		µg/l		20.0		99	70-130	3	25
Carbon disulfide	**18.0**		µg/l		20.0		90	70-130	3	25
Carbon tetrachloride	**17.1**		µg/l		20.0		86	70-130	0.6	25
Chlorobenzene	**20.7**		µg/l		20.0		103	70-130	2	25
Chloroethane	**19.1**		µg/l		20.0		96	70-130	4	50
Chloroform	**21.3**		µg/l		20.0		107	70-130	1	25
Chloromethane	**19.1**		µg/l		20.0		96	70-130	6	25
2-Chlorotoluene	**20.0**		µg/l		20.0		100	70-130	4	25
4-Chlorotoluene	**19.4**		µg/l		20.0		97	70-130	4	25
1,2-Dibromo-3-chloropropane	**21.4**		µg/l		20.0		107	70-130	1	25
Dibromochloromethane	**21.1**		µg/l		20.0		105	70-130	0.4	50
1,2-Dibromoethane (EDB)	**23.4**		µg/l		20.0		117	70-130	0.3	25
Dibromomethane	**22.4**		µg/l		20.0		112	70-130	1	25
1,2-Dichlorobenzene	**19.9**		µg/l		20.0		100	70-130	0.3	25
1,3-Dichlorobenzene	**20.3**		µg/l		20.0		102	70-130	4	25
1,4-Dichlorobenzene	**19.5**		µg/l		20.0		97	70-130	0.7	25
Dichlorodifluoromethane (Freon12)	**18.4**		µg/l		20.0		92	70-130	5	50
1,1-Dichloroethane	**19.0**		µg/l		20.0		95	70-130	3	25
1,2-Dichloroethane	**21.5**		µg/l		20.0		108	70-130	0.8	25
1,1-Dichloroethene	**19.4**		µg/l		20.0		97	70-130	2	25
cis-1,2-Dichloroethene	**21.3**		µg/l		20.0		106	70-130	0.09	25
trans-1,2-Dichloroethene	**19.9**		µg/l		20.0		99	70-130	2	25
1,2-Dichloropropane	**22.0**		µg/l		20.0		110	70-130	0.7	25
1,3-Dichloropropane	**23.3**		µg/l		20.0		117	70-130	0.6	25
2,2-Dichloropropane	**16.6**		µg/l		20.0		83	70-130	2	25
1,1-Dichloropropene	**20.0**		µg/l		20.0		100	70-130	2	25
cis-1,3-Dichloropropene	**18.8**		µg/l		20.0		94	70-130	1	25
trans-1,3-Dichloropropene	**19.0**		µg/l		20.0		95	70-130	1	25
Ethylbenzene	**19.8**		µg/l		20.0		99	70-130	4	25
Hexachlorobutadiene	**17.2**		µg/l		20.0		86	70-130	8	50

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1208775 - SW846 5030 Water MS										
LCS Dup (1208775-BSD1)					Prepared & Analyzed: 18-Apr-12					
2-Hexanone (MBK)	**22.7**		µg/l		20.0		113	70-130	4	25
Isopropylbenzene	**20.2**		µg/l		20.0		101	70-130	3	25
4-Isopropyltoluene	**18.4**		µg/l		20.0		92	70-130	3	25
Methyl tert-butyl ether	**19.2**		µg/l		20.0		96	70-130	1	25
4-Methyl-2-pentanone (MIBK)	**22.1**		µg/l		20.0		110	70-130	2	50
Methylene chloride	**20.2**		µg/l		20.0		101	70-130	3	25
Naphthalene	**20.8**		µg/l		20.0		104	70-130	4	25
n-Propylbenzene	**19.7**		µg/l		20.0		99	70-130	3	25
Styrene	**19.6**		µg/l		20.0		98	70-130	4	25
1,1,1,2-Tetrachloroethane	**18.9**		µg/l		20.0		95	70-130	2	25
1,1,2,2-Tetrachloroethane	**24.0**		µg/l		20.0		120	70-130	2	25
Tetrachloroethene	**19.7**		µg/l		20.0		99	70-130	6	25
Toluene	**21.8**		µg/l		20.0		109	70-130	4	25
1,2,3-Trichlorobenzene	**18.4**		µg/l		20.0		92	70-130	7	25
1,2,4-Trichlorobenzene	**16.9**		µg/l		20.0		84	70-130	4	25
1,3,5-Trichlorobenzene	**17.6**		µg/l		20.0		88	70-130	3	25
1,1,1-Trichloroethane	**18.8**		µg/l		20.0		94	70-130	0.1	25
1,1,2-Trichloroethane	**23.5**		µg/l		20.0		118	70-130	0.6	25
Trichloroethene	**21.3**		µg/l		20.0		106	70-130	0.7	25
Trichlorofluoromethane (Freon 11)	**21.6**		µg/l		20.0		108	70-130	1	50
1,2,3-Trichloropropane	**23.9**		µg/l		20.0		120	70-130	3	25
1,2,4-Trimethylbenzene	**19.9**		µg/l		20.0		99	70-130	4	25
1,3,5-Trimethylbenzene	**19.8**		µg/l		20.0		99	70-130	3	25
Vinyl chloride	**18.1**		µg/l		20.0		91	70-130	5	25
m,p-Xylene	**40.0**		µg/l		40.0		100	70-130	2	25
o-Xylene	**20.6**		µg/l		20.0		103	70-130	1	25
Tetrahydrofuran	**24.2**		µg/l		20.0		121	70-130	0.7	25
Ethyl ether	**19.6**		µg/l		20.0		98	70-130	4	50
Tert-amyl methyl ether	**19.6**		µg/l		20.0		98	70-130	0.9	25
Ethyl tert-butyl ether	**19.1**		µg/l		20.0		95	70-130	0.3	25
Di-isopropyl ether	**20.0**		µg/l		20.0		100	70-130	10	25
Tert-Butanol / butyl alcohol	**217**		µg/l		200		108	70-130	6	25
1,4-Dioxane	**272**		µg/l		200		136	70-130	2	25
trans-1,4-Dichloro-2-butene	**17.4**		µg/l		20.0		87	70-130	4	25
Ethanol	**440**		µg/l		400		110	70-130	9	30
Surrogate: 4-Bromofluorobenzene	*50.9*		µg/l		*50.0*		*102*	*70-130*		
Surrogate: Toluene-d8	*52.5*		µg/l		*50.0*		*105*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*48.2*		µg/l		*50.0*		*96*	*70-130*		
Surrogate: Dibromofluoromethane	*50.7*		µg/l		*50.0*		*101*	*70-130*		

Notes and Definitions

dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference

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

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

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

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

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

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

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

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

Validated by:
Nicole Leja

SB46956 DY

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

CHAIN OF CUSTODY RECORD

Page 1 of 1

Special Handling:
- ☐ Standard TAT - 7 to 10 business days
- ☒ Rush TAT - Date Needed: 4/18/12
- All TATs subject to laboratory approval. Min. 24-hour notification needed for rushes.
- Samples disposed of after 60 days unless otherwise instructed.

Report To: OTO
293 Bridge St Suite 520
Springfield MA 01103
Project Mgr.: Val Tillinghast

Invoice To: OTO
P.O. No.: _____ RQN: _____

Project No.: 1753-03-01
Site Name: Lunt Silversmith
Location: Greenfield State: MA
Sampler(s): B. Thompson

1=Na_2S2O_3 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid
7=CH_3OH 8= $NaHSO_4$ 9=_____ 10=_____

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

G=Grab C=Composite

Lab Id:	Sample Id:	Date:	Time:	Type	Matrix	Preservative	Containers: # of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Analyses: VOCs by 8260								QA Reporting Notes: (check if needed)
469561	OF-1	4/11/12	0910	G	GW	H	3				X								☒ Provide MA DEP MCP CAM Report ☐ Provide CT DPH RCP Report **QA/QC Reporting Level** ☒ Standard ☐ No QC ☐ Other _____ State specific reporting standards:
↓ 02	OF-2	4/11/12	0916	G	GW	H	3				X								

☐ Fax results when available to (_____) _____
☒ E-mail to tillinghast@otv-env.com
EDD Format _____
Condition upon receipt: ☒ Iced ☐ Ambient ☒ °C 6.0

~~Relinquished~~ by:	Received by:	Date:	Time:
	Rachelle H	4-11-12	17:25

6a

APPENDIX E
GROUNDWATER SAMPLING LOGS

O'REILLY, TALBOT & OKUN ASSOCIATES, INC.
ENVIRONMENTAL AND GEOTECHNICAL ENGINEERING CONSULTANTS

GROUNDWATER SAMPLING RECORD

PROJECT: Lunt Silversmith *PROJECT NO.:* 1753-07-01
CITY/STATE: Greenfield, MA
SAMPLING PERSONNEL: B. Thompson
DATE: 1/9/12 *WEATHER:* Sunny

SAMPLE DESIGNATION: LS-10 *SAMPLING SEQUENCE No.* 1 of 5
PURGE METHOD: BAILER / (PUMP - LOW) or HIGH FLOW ? / OTHER
SAMPLE METHOD: BAILER / (PERISTALTIC PUMP) / OTHER

WELL DATA
MEASURING POINT: Top of: (PVC) / Curb box / Protective pipe / Other:
Vertical distance from measuring point to ground surface: above / below grade
WELL DIAMETER: 2" *DEPTH TO WATER:* 5.06 *TOTAL DEPTH:* 11.84
STANDING WATER(ft): *ONE VOLUME = (gal):*
CONDITION OF WELL: (Good) / unlocked / standing water in annulus / other:
RECHARGE RATE: Slow / (Moderate) / Fast

WATER DATA
APPEARANCE: (Clear) / cloudy / silty / sheen / floating product / other:
ODOR: (None) / Petroleum / Other (describe):

Time	1148	1153	1158	1203	1208	1213	1218
Depth to water	5.24	5.45	5.52	5.74	—	—	
Cum. purge volume	—	—	—	—	—	—	—
pH (S.U.)	6.09	6.08	5.94	5.97	—	—	
Cond'y (umho/cm)	281	282	279	276	—	—	
Temp (°C)	5.63	5.99	6.52	6.68	—	—	
Turbidity	—	—	—	—	—	—	—
Dissolved O_2 (mg/l)	8.98	6.95	6.68	6.48	—	—	
ORP/other:	232.8	199.8	193.9	183.3	—	—	—

SAMPLE BOTTLES: FILTRATION?: YES (NO) If yes, pore size: 0.45 micron / other

ANALYSIS	BOTTLES (number & type)	PRESERVATIVE (type&amount)
EPH	2 x 1000 mL Amber	HCl
VPH	3 x 40 mL VOAs	HCl
VOCs	3 x 40 mL VOAs	HCl

NOTES AND OBSERVATIONS:
Sampled @ 1203

O'REILLY, TALBOT & OKUN ASSOCIATES, INC.
ENVIRONMENTAL AND GEOTECHNICAL ENGINEERING CONSULTANTS

GROUNDWATER SAMPLING RECORD

PROJECT: Lunt Silversmith *PROJECT NO.:* 1753-03-01
CITY/STATE: Greenfield, MA
SAMPLING PERSONNEL: B. Thompson
DATE: 1/19/12 *WEATHER:* Sunny

SAMPLE DESIGNATION: MW-7 *SAMPLING SEQUENCE No.* 2 of 5
PURGE METHOD: BAILER / (PUMP - LOW) or HIGH FLOW ? / OTHER
SAMPLE METHOD: BAILER / (PERISTALTIC PUMP) / OTHER

WELL DATA
MEASURING POINT: Top of: (PVC) / Curb box / Protective pipe / Other:
Vertical distance from measuring point to ground surface: above / below grade
WELL DIAMETER: 2" *DEPTH TO WATER:* 2.68 *TOTAL DEPTH:* 10.94
STANDING WATER(ft): *ONE VOLUME = (gal):*
CONDITION OF WELL: (Good) / unlocked / standing water in annulus / other: no PVC cap
RECHARGE RATE: Slow / (Moderate) / Fast

WATER DATA
APPEARANCE: Clear / (cloudy) / silty / sheen / floating product / other:
ODOR: (None) / Petroleum / Other (describe):

Time	1242	1247	1252	1257	1302	1307	1312
Depth to water	3.93	4.15	4.32	4.54	4.76	—	—
Cum. purge volume	—	—	—	—	—	—	—
pH (S.U.)	5.97	6.25	6.25	6.21	6.06	—	—
Cond'y (umho/cm)	1150	1159	1159	1145	1133	—	—
Temp (°C)	8.60	8.27	7.95	7.95	7.98	—	—
Turbidity	—	—	—	—	—	—	—
Dissolved O_2 (mg/l)	3.03	3.00	2.46	2.32	2.25	—	—
ORP/other:	137.5	110.7	103.6	102.2	105.9	—	—

SAMPLE BOTTLES: FILTRATION?: YES / (NO) If yes, pore size: 0.45 micron / other

ANALYSIS	BOTTLES (number & type)	PRESERVATIVE (type&amount)
VOCs by 8260	3 x 40 mL VOAs	HCl
RCRA 8 Metals	1 x 500 mL Plastic	—— Last to Fill
Total Cyanide	1 x 500 mL Plastic	NaOH

NOTES AND OBSERVATIONS:
Sampled @ 1302

O'REILLY, TALBOT & OKUN ASSOCIATES, INC.
ENVIRONMENTAL AND GEOTECHNICAL ENGINEERING CONSULTANTS

GROUNDWATER SAMPLING RECORD

PROJECT: Lunt Silversmith *PROJECT NO.:* 1753-07-01
CITY/STATE: Greenfield, MA
SAMPLING PERSONNEL: B. Thompson
DATE: 1/9/12 *WEATHER:* Sunny

SAMPLE DESIGNATION: MW-6 *SAMPLING SEQUENCE No.* 3 of 5
PURGE METHOD: BAILER / (PUMP - LOW) or HIGH FLOW ? / OTHER
SAMPLE METHOD: BAILER (PERISTALTIC PUMP) / OTHER

WELL DATA
MEASURING POINT: Top of: (PVC) / Curb box / Protective pipe / Other:
Vertical distance from measuring point to ground surface: above / below grade
WELL DIAMETER: 2" *DEPTH TO WATER:* 2.06 *TOTAL DEPTH:* 7.85
STANDING WATER(ft): *ONE VOLUME = (gal):*
CONDITION OF WELL: Good / unlocked / standing water in annulus / (other: no annulus, cap, PVC exposed, unstable during drilling activities)
RECHARGE RATE: Slow / (Moderate) / Fast

WATER DATA
APPEARANCE: Clear / (cloudy) / (silty) / sheen / floating product / other:
ODOR: (None) / Petroleum / Other (describe):

Time	1325	1330	1335	1340	1345	1350	1355
Depth to water	3.26	3.83	4.15	4.46	—	—	—
Cum. purge volume	—	—	—	—	—	—	—
pH (S.U.)	7.13	6.19	5.93	5.91	—	—	—
Cond'y (umho/cm)	1008	992	980	943	—	—	—
Temp (°C)	4.83	4.77	4.69	4.26	—	—	—
Turbidity	—	—	—	—	—	—	—
Dissolved O_2 (mg/l)	8.95	8.72	8.56	8.19	—	—	—
ORP/other:	96.8	119.9	125.0	124.8	—	—	—

SAMPLE BOTTLES: FILTRATION?: YES / (NO) If yes, pore size: 0.45 micron / other

ANALYSIS	BOTTLES (number & type)	PRESERVATIVE (type&amount)
VOCs by 8260	3 x 40 mL VOAs	HCl
RCRA 8 metals	1 x 500 mL Plastic	— Last to filter
Total Cyanide	1 x 500 mL Plastic	NaOH

NOTES AND OBSERVATIONS:
Sampled @ 1340

O'REILLY, TALBOT & OKUN ASSOCIATES, INC.
ENVIRONMENTAL AND GEOTECHNICAL ENGINEERING CONSULTANTS

GROUNDWATER SAMPLING RECORD

PROJECT: Lunt Silversmith *PROJECT NO.:* 1753-07-01
CITY/STATE: Greenfield, MA
SAMPLING PERSONNEL: B. Thompson
DATE: 1/19/12 *WEATHER:*

SAMPLE DESIGNATION: LS-20 *SAMPLING SEQUENCE No.* 4 of 5
PURGE METHOD: BAILER / (PUMP - LOW) or HIGH FLOW ? / OTHER
SAMPLE METHOD: BAILER / (PERISTALTIC PUMP) / OTHER

WELL DATA
MEASURING POINT: Top of: (PVC) / Curb box / Protective pipe / Other:
Vertical distance from measuring point to ground surface: above / below grade
WELL DIAMETER: 2" *DEPTH TO WATER:* 3.40 *TOTAL DEPTH:* 9.63
STANDING WATER(ft): *ONE VOLUME = (gal):*
CONDITION OF WELL: (Good) / unlocked / standing water in annulus / other:
RECHARGE RATE: Slow / (Moderate) / Fast

WATER DATA
APPEARANCE: (Clear) / (cloudy) / silty / sheen / floating product / other:
ODOR: None / Petroleum / Other (describe):

Time	1355	1400	1405	1410	1415	1420	1425
Depth to water	3.56	3.68	3.78	3.84	—	—	—
Cum. purge volume	—	—	—	—	—	—	—
pH (S.U.)	5.33	5.37	5.28	5.32	—	—	—
Cond'y (umho/cm)	230	231	228	220	—	—	—
Temp (°C)	8.30	8.40	8.23	8.12	—	—	—
Turbidity	—	—	—	—	—	—	—
Dissolved O_2 (mg/l)	8.99	6.18	6.24	6.05	—	—	—
ORP/other:	176.0	132.5	127.0	126.1	—	—	—

SAMPLE BOTTLES: FILTRATION?: YES / (NO) If yes, pore size: 0.45 micron / other

ANALYSIS	BOTTLES (number & type)	PRESERVATIVE (type&amount)
VOCs by 8260	3 x 40 mL VOAs	HCl
EPH	2 x 1000 mL Amber	HCl
RCRA 8 Metals	1 x 500 mL Plastic	—
Total Cyanide	1 x 500 mL Plastic	NaOH

NOTES AND OBSERVATIONS:
Sampled @ 1410

O'REILLY, TALBOT & OKUN ASSOCIATES, INC.
ENVIRONMENTAL AND GEOTECHNICAL ENGINEERING CONSULTANTS

GROUNDWATER SAMPLING RECORD

PROJECT: Lunt Silversmith *PROJECT NO.:* 1753-07-01
CITY/STATE: Greenfield, MA
SAMPLING PERSONNEL: B. Thompson
DATE: 1/19/12 *WEATHER:* Sunny

SAMPLE DESIGNATION: LS-19 *SAMPLING SEQUENCE No.* 5 of 5
PURGE METHOD: BAILER / (PUMP - LOW) or HIGH FLOW ? / OTHER
SAMPLE METHOD: BAILER / (PERISTALTIC PUMP) / OTHER

WELL DATA

MEASURING POINT: Top of: (PVC) / Curb box / Protective pipe / Other:
Vertical distance from measuring point to ground surface: above / below grade
WELL DIAMETER: 2" *DEPTH TO WATER:* 4.53 *TOTAL DEPTH:* 11.85
STANDING WATER(ft): *ONE VOLUME = (gal):*
CONDITION OF WELL: (Good) / unlocked / standing water in annulus / other:
RECHARGE RATE: Slow / (Moderate) / Fast

WATER DATA

APPEARANCE: Clear / (cloudy) / silty / sheen / floating product / other:
ODOR: (None) / Petroleum / Other (describe):

Time	1501	1506	1511	1516	1521	1526	1531
Depth to water	4.69	4.71	4.74	4.76	—	—	—
Cum. purge volume	—	—	—	—	—	—	—
pH (S.U.)	5.80	5.98	6.03	6.06	—	—	—
Cond'y (umho/cm)	694	712	711	713	—	—	—
Temp (°C)	6.89	6.74	7.09	7.01	—	—	—
Turbidity	—	—	—	—	—	—	—
Dissolved O_2 (mg/l)	1.91	0.80	0.63	0.67	—	—	—
ORP/other:	143.5	139.0	139.1	139.3	—	—	—

SAMPLE BOTTLES:

FILTRATION?: YES / (NO) If yes, pore size: 0.45 micron / other

ANALYSIS	BOTTLES (number & type)	PRESERVATIVE (type&amount)
VOCs by 8260	3 x 40 mL VOA	HCl

NOTES AND OBSERVATIONS:
Sampled @ 1516

O'REILLY, TALBOT & OKUN ASSOCIATES, INC.
ENVIRONMENTAL AND GEOTECHNICAL ENGINEERING CONSULTANTS

GROUNDWATER SAMPLING RECORD

PROJECT: Lunt Silversmith *PROJECT NO.:* 1753-03-01
CITY/STATE: Greenfield, MA
SAMPLING PERSONNEL: B. Waranda
DATE: 2/28/12 *WEATHER:* P. Sunny, 40°F, Windy

SAMPLE DESIGNATION: LS-21 *SAMPLING SEQUENCE No.* 1 of 5
PURGE METHOD: BAILER / (PUMP - LOW or HIGH FLOW ?) / OTHER
SAMPLE METHOD: BAILER / (PERISTALTIC PUMP) / OTHER

WELL DATA
MEASURING POINT: Top of: (PVC) / Curb box / Protective pipe / Other:
Vertical distance from measuring point to ground surface: above / below grade
WELL DIAMETER: 1" *DEPTH TO WATER:* 1.60 *TOTAL DEPTH:*
STANDING WATER(ft): *ONE VOLUME = (gal):*
CONDITION OF WELL: (Good) / unlocked / standing water in annulus / other:
RECHARGE RATE: Slow / (Moderate) / Fast

WATER DATA
APPEARANCE: (Clear) / cloudy / (silty) / sheen / floating product / other:
ODOR: (None) / Petroleum / Other (describe):

Time	0930	0935	0940	0945	0950	0955	1000
Depth to water	—	—	—	—	—	—	—
Cum. purge volume	~1/8 gal	~1/4 gal	~3/8 gal	~1/2 gal	—	—	—
pH (S.U.)	5.60	5.63	5.59	5.58	—	—	—
Cond'y (umho/cm)	179.2	156.8	150.7	147.3	—	—	—
Temp (°C)	7.3	6.8	6.7	6.6	—	—	—
Turbidity	—	—	—	—	—	—	—
Dissolved O_2 (mg/l)	1.68	1.73	1.72	1.60	—	—	—
ORP/other:	—	—	—	—	—	—	—

SAMPLE BOTTLES: FILTRATION?: YES / (NO) If yes, pore size: 0.45 micron / other

ANALYSIS	BOTTLES (number & type)	PRESERVATIVE (type&amount)
VOCs by 8260	3 x 40 mL VOAs	HCl

NOTES AND OBSERVATIONS:
Sampled @ 0945

O'REILLY, TALBOT & OKUN ASSOCIATES, INC.
ENVIRONMENTAL AND GEOTECHNICAL ENGINEERING CONSULTANTS

GROUNDWATER SAMPLING RECORD

PROJECT: Lunt Silversmith *PROJECT NO.:* 1753-03-01
CITY/STATE: Greenfield, MA
SAMPLING PERSONNEL: B. Waranda
DATE: 2/28/12 *WEATHER:* P. Sunny, 40°F, Windy

SAMPLE DESIGNATION: LS-22 *SAMPLING SEQUENCE No.* 2 of 5
PURGE METHOD: BAILER / PUMP - LOW or HIGH FLOW ? / OTHER
SAMPLE METHOD: BAILER / PERISTALTIC PUMP / OTHER

WELL DATA
MEASURING POINT: Top of: PVC / Curb box / Protective pipe / Other:
Vertical distance from measuring point to ground surface: above / below grade
WELL DIAMETER: 1" *DEPTH TO WATER:* 3.66 *TOTAL DEPTH:*
STANDING WATER(ft): *ONE VOLUME = (gal):*
CONDITION OF WELL: Good / unlocked / standing water in annulus / other:
RECHARGE RATE: Slow / Moderate / Fast

WATER DATA
APPEARANCE: Clear / cloudy / silty / sheen / floating product / other:
ODOR: None / Petroleum / Other (describe):

Time	1005	1010	1015	1020	1025	1030	1035
Depth to water	—	—	—	—	—	—	—
Cum. purge volume	~1/8 gal	~1/4 gal	~3/8 gal	~1/2 gal	—	—	—
pH (S.U.)	6.48	6.50	6.53	6.53	—	—	—
Cond'y (umho/cm)	137.3	128.9	130.2	126.8	—	—	—
Temp (°C)	6.6	6.4	6.1	6.1	—	—	—
Turbidity	—	—	—	—	—	—	—
Dissolved O_2 (mg/l)	6.01	5.98	5.99	5.82	—	—	—
ORP/other:	—	—	—	—	—	—	—

SAMPLE BOTTLES: FILTRATION?: YES / NO If yes, pore size: 0.45 micron / other

ANALYSIS	BOTTLES (number & type)	PRESERVATIVE (type&amount)
VOCs by 8260	3 x 40 mL VOAs	HCl

NOTES AND OBSERVATIONS:
Sampled @ 1020

O'REILLY, TALBOT & OKUN ASSOCIATES, INC.
ENVIRONMENTAL AND GEOTECHNICAL ENGINEERING CONSULTANTS

GROUNDWATER SAMPLING RECORD

PROJECT: Lunt Silversmith *PROJECT NO.:* 1753-03-01
CITY/STATE: Greenfield, MA
SAMPLING PERSONNEL: B. Waranda
DATE: 2/28/12 *WEATHER:* P. Sunny, 40°F, Windy

SAMPLE DESIGNATION: LS-23 *SAMPLING SEQUENCE No.* 3 of 5
PURGE METHOD: BAILER / PUMP - LOW or HIGH FLOW ? / OTHER
SAMPLE METHOD: BAILER / PERISTALTIC PUMP / OTHER

WELL DATA
MEASURING POINT: Top of: PVC / Curb box / Protective pipe / Other:
Vertical distance from measuring point to ground surface: above / below grade
WELL DIAMETER: 1" *DEPTH TO WATER:* 3.81 *TOTAL DEPTH:*
STANDING WATER(ft): *ONE VOLUME = (gal):*
CONDITION OF WELL: Good / unlocked / standing water in annulus / other:
RECHARGE RATE: Slow / Moderate / Fast

WATER DATA
APPEARANCE: Clear / cloudy / silty / sheen / floating product / other:
ODOR: None / Petroleum / Other (describe):

Time	1036	1041	1046	1051	1056	1101	1106
Depth to water	—	—	—	—	—	—	—
Cum. purge volume	~¼ gal	~½ gal	~¾ gal	—	—	—	—
pH (S.U.)	7.01	6.91	6.89	—	—	—	—
Cond'y (umho/cm)	606	588	548	—	—	—	—
Temp (°C)	8.0	8.8	9.3	—	—	—	—
Turbidity	—	—	—	—	—	—	—
Dissolved O_2 (mg/l)	2.70	2.91	2.93	—	—	—	—
ORP/other:	—	—	—	—	—	—	—

SAMPLE BOTTLES: FILTRATION?: YES / NO If yes, pore size: 0.45 micron / other

ANALYSIS	BOTTLES (number & type)	PRESERVATIVE (type&amount)
VOCs by 8260	3 x 40 mL VOAs	HCl

NOTES AND OBSERVATIONS:
Sampled @ 1055
↳ well ran dry @ 1048, let recharged then sampled

O'REILLY, TALBOT & OKUN ASSOCIATES, INC.
ENVIRONMENTAL AND GEOTECHNICAL ENGINEERING CONSULTANTS

GROUNDWATER SAMPLING RECORD

PROJECT: Lunt Silversmith *PROJECT NO.:* 1753-03-01
CITY/STATE: Greenfield, MA
SAMPLING PERSONNEL: B. Waranda
DATE: 2/28/12 *WEATHER:* P. Sunny, 40°F, Windy

SAMPLE DESIGNATION: LS-24 *SAMPLING SEQUENCE No.* 4 of 5
PURGE METHOD: BAILER / (PUMP - LOW) or HIGH FLOW ? / OTHER
SAMPLE METHOD: BAILER / (PERISTALTIC PUMP) / OTHER

WELL DATA
MEASURING POINT: Top of: (PVC) Curb box / Protective pipe / Other:
Vertical distance from measuring point to ground surface: above / below grade
WELL DIAMETER: 1" *DEPTH TO WATER:* 5.40 *TOTAL DEPTH:*
STANDING WATER(ft): *ONE VOLUME = (gal):*
CONDITION OF WELL: (Good) / unlocked / standing water in annulus / other:
RECHARGE RATE: Slow / (Moderate) / Fast

WATER DATA
APPEARANCE: Clear / cloudy / (silty) / sheen / floating product / other:
ODOR: (None) / Petroleum / Other (describe):

Time	1110	1115	1120	1125	1130	1135	1140
Depth to water	—	—	—	—	—	—	—
Cum. purge volume	~1/8 gal	~1/4 gal	~3/8 gal	~1/2 gal	—	—	—
pH (S.U.)	7.20	7.21	7.22	7.22	—	—	—
Cond'y (umho/cm)	304	297	303	308	—	—	—
Temp (°C)	11.2	12.5	12.6	12.5	—	—	—
Turbidity	—	—	—	—	—	—	—
Dissolved O_2 (mg/l)	1.55	1.24	1.17	1.10	—	—	—
ORP/other:	—	—	—	—	—	—	—

SAMPLE BOTTLES: FILTRATION?: YES / (NO) If yes, pore size: 0.45 micron / other

ANALYSIS	BOTTLES (number & type)	PRESERVATIVE (type&amount)
VOCs by 8260	3 x 40 mL VOAs	HCl
EPH	1 x 1 L Amber	HCl
TAL-23	1 x 500 mL Plastic	As Is (Lab Filter)

NOTES AND OBSERVATIONS:
Sampled @ 1125

O'REILLY, TALBOT & OKUN ASSOCIATES, INC.
ENVIRONMENTAL AND GEOTECHNICAL ENGINEERING CONSULTANTS

GROUNDWATER SAMPLING RECORD

PROJECT: Lunt Silversmith *PROJECT NO.:* 1753-03-01
CITY/STATE: Greenfield, MA
SAMPLING PERSONNEL: B. Waranda
DATE: 2/28/12 *WEATHER:* P. Sunny, 40°F, Windy

SAMPLE DESIGNATION: MW-6 *SAMPLING SEQUENCE No.* 5 of 5
PURGE METHOD: BAILER / PUMP - LOW or HIGH FLOW ? / OTHER
SAMPLE METHOD: BAILER / PERISTALTIC PUMP / OTHER

WELL DATA
MEASURING POINT: Top of: PVC / Curb box / Protective pipe / Other:
Vertical distance from measuring point to ground surface: above / below grade
WELL DIAMETER: 2" *DEPTH TO WATER:* 2.97 *TOTAL DEPTH:*
STANDING WATER(ft): *ONE VOLUME = (gal):*
CONDITION OF WELL: Good / unlocked / standing water in annulus / other:
RECHARGE RATE: Slow / Moderate / Fast

WATER DATA
APPEARANCE: Clear / cloudy / silty / sheen / floating product / other:
ODOR: None / Petroleum / Other (describe):

Time							
Depth to water	—	—	—	—	See Notes Below	—	—
Cum. purge volume							
pH (S.U.)							
Cond'y (umho/cm)							
Temp (°C)							
Turbidity	—	—	—	—	—	—	—
Dissolved O_2 (mg/l)							
ORP/other:							

SAMPLE BOTTLES: FILTRATION?: YES / NO If yes, pore size: 0.45 micron / other

ANALYSIS	BOTTLES (number & type)	PRESERVATIVE (type&amount)
VOCs by 8260	3 x 40 mL VOAs	HCl

NOTES AND OBSERVATIONS:
Sampled @
Bailed ~ 2 gallons of water from well before it ran dry. Sampled once ~~re~~ recharged. Parameters not taken.

O'REILLY, TALBOT & OKUN ASSOCIATES, INC.
ENVIRONMENTAL AND GEOTECHNICAL ENGINEERING CONSULTANTS

GROUNDWATER SAMPLING RECORD

PROJECT: Lunt Silversmith *PROJECT NO.:* 1753-03-01
CITY/STATE: Greenfield, MA
SAMPLING PERSONNEL: B. Waranda
DATE: 3/15/12 *WEATHER:* P. Cloudy, 40°F, Windy

SAMPLE DESIGNATION: GS-19 *SAMPLING SEQUENCE No.* 1 of 1
PURGE METHOD: BAILER / (PUMP - LOW) or HIGH FLOW ? / OTHER
SAMPLE METHOD: BAILER / (PERISTALTIC PUMP) / OTHER

WELL DATA
MEASURING POINT: Top of: (PVC) / Curb box / Protective pipe / Other:
Vertical distance from measuring point to ground surface: above / below grade
WELL DIAMETER: 2" *DEPTH TO WATER:* 4.31 *TOTAL DEPTH:*
STANDING WATER(ft): *ONE VOLUME = (gal):*
CONDITION OF WELL: (Good) / unlocked / standing water in annulus / other:
RECHARGE RATE: Slow / (Moderate) / Fast

WATER DATA
APPEARANCE: (Clear) / cloudy / silty / sheen / floating product / other:
ODOR: (None) / Petroleum / Other (describe):

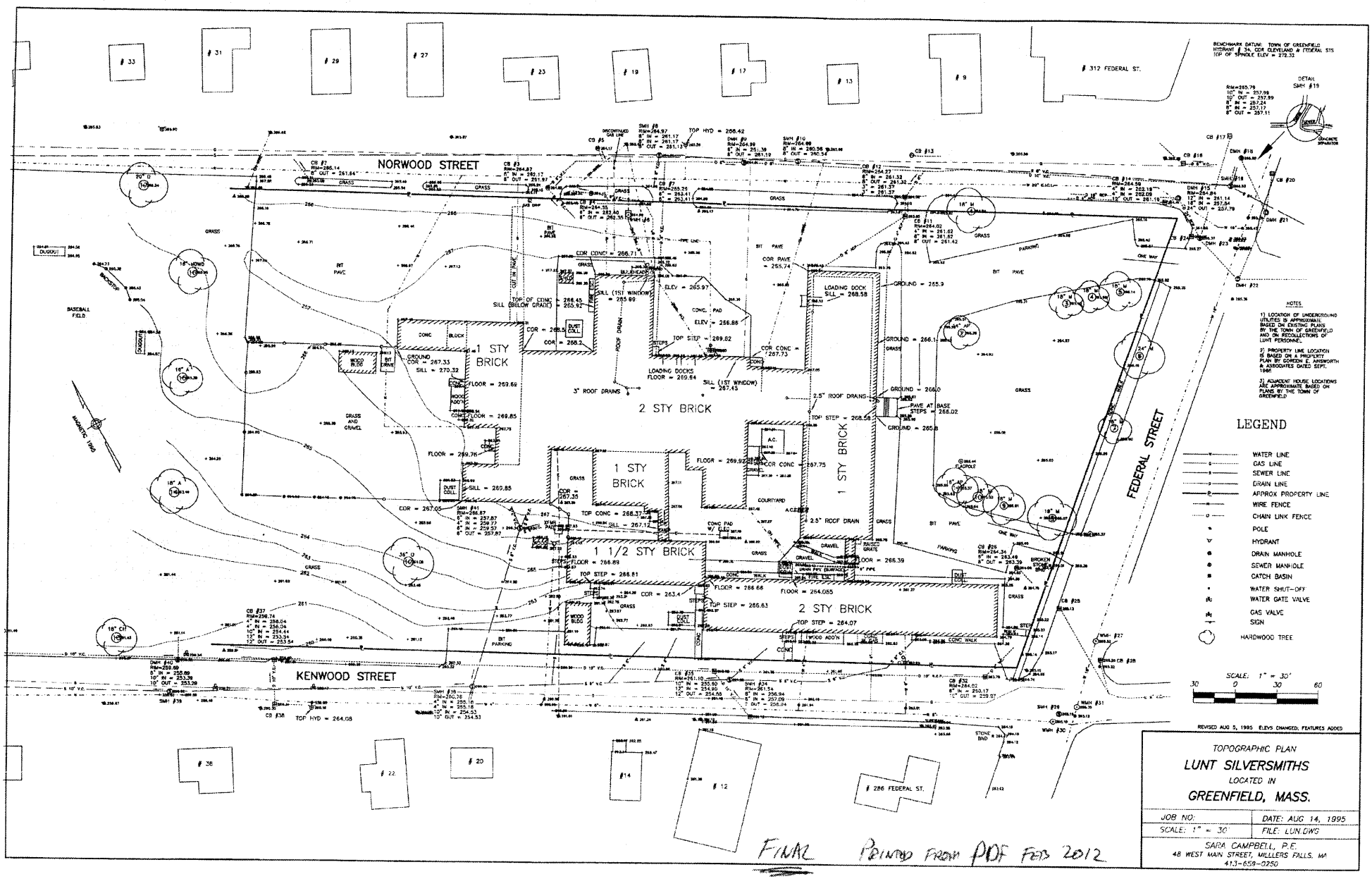
Time	1035	1040	1045	1050	1055	1100	1100
Depth to water	4.45	4.54	4.61	4.69	—	—	—
Cum. purge volume	~1/8 gallon	~1/4 gallon	~1/2 gallon	~3/4 gallon	—	—	—
pH (S.U.)	6.80	6.38	6.13	6.02	—	—	—
Cond'y (umho/cm)	699	704	705	708	—	—	—
Temp (°C)	8.66	8.36	8.11	8.00	—	—	—
Turbidity	—	—	—	—	—	—	—
Dissolved O_2 (mg/l)	1.17	0.75	0.63	0.60	—	—	—
ORP/other:	109.6	108.5	107.3	99.6	—	—	—

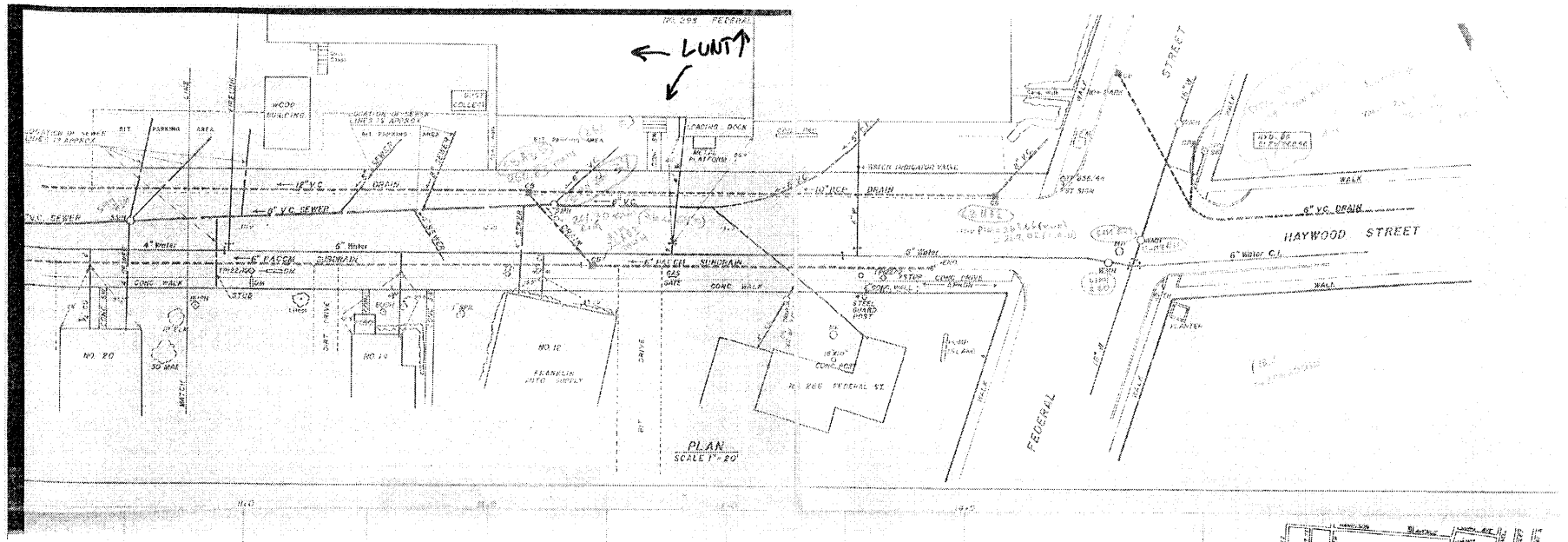
SAMPLE BOTTLES: FILTRATION?: (YES) / NO. If yes, pore size: (0.45 micron) / other

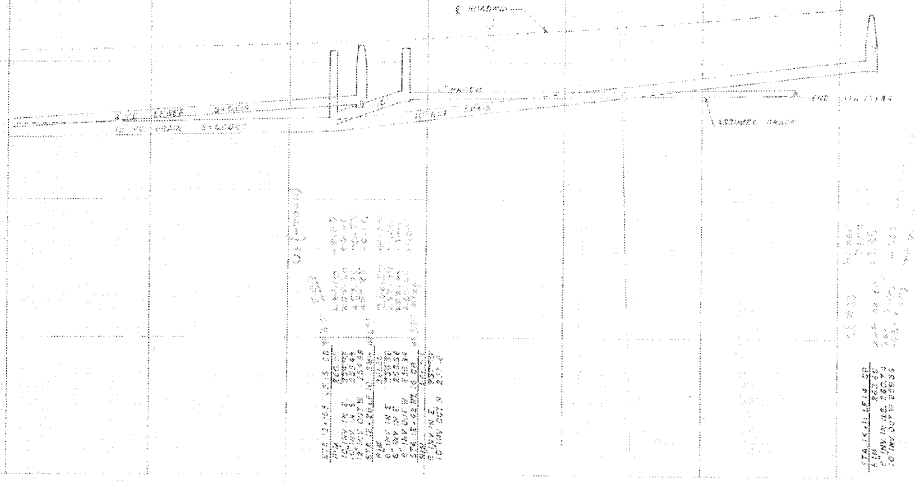
ANALYSIS	BOTTLES (number & type)	PRESERVATIVE (type&amount)
RCRA 8	1 x 500 mL Plastic	HNO_3

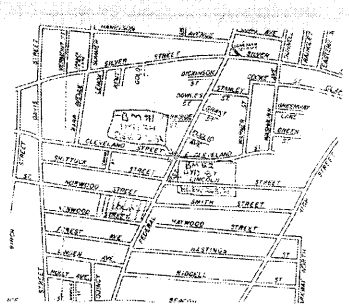
NOTES AND OBSERVATIONS:
Sampled @ 1100 (field filtered, time poured into sampling jar)

APPENDIX F
UTILITY LINE MAPPING AND OUTFALL SAMPLE INFORMATION


NORWOOD STREET
KENWOOD STREET
FEDERAL STREET
33
31
29
27
23
19
17
13
9
312 FEDERAL ST.
38
22
20
14
12
286 FEDERAL ST.
1 STY BRICK
2 STY BRICK
1 1/2 STY BRICK
BASEBALL FIELD
BENCHMARK DATUM: TOWN OF GREENFIELD HYDRANT # 34, COR CLEVELAND & FEDERAL STS TOP OF SPINDLE ELEV = 272.32
NOTES
1) LOCATION OF UNDERGROUND UTILITIES IS APPROXIMATE, BASED ON EXISTING PLANS BY THE TOWN OF GREENFIELD AND ON RECOLLECTIONS OF LUNT PERSONNEL.
2) PROPERTY LINE LOCATION IS BASED ON A PROPERTY PLAN BY GORDON E. AINSWORTH & ASSOCIATES DATED SEPT. 1995.
3) ADJACENT HOUSE LOCATIONS ARE APPROXIMATE BASED ON PLANS BY THE TOWN OF GREENFIELD.
LEGEND
WATER LINE
GAS LINE
SEWER LINE
DRAIN LINE
APPROX PROPERTY LINE
WIRE FENCE
CHAIN LINK FENCE
POLE
HYDRANT
DRAIN MANHOLE
SEWER MANHOLE
CATCH BASIN
WATER SHUT-OFF
WATER GATE VALVE
GAS VALVE
SIGN
HARDWOOD TREE
SCALE: 1" = 30'
30 0 30 60
REVISED AUG 5, 1995 ELEVS CHANGED, FEATURES ADDED
TOPOGRAPHIC PLAN
LUNT SILVERSMITHS
LOCATED IN
GREENFIELD, MASS.
JOB NO:
DATE: AUG 14, 1995
SCALE: 1" = 30'
FILE: LUN.DWG
SARA CAMPBELL, P.E.
48 WEST MAIN STREET, MILLERS FALLS, MA
413-659-0250
FINAL Printed from PDF Feb 2012





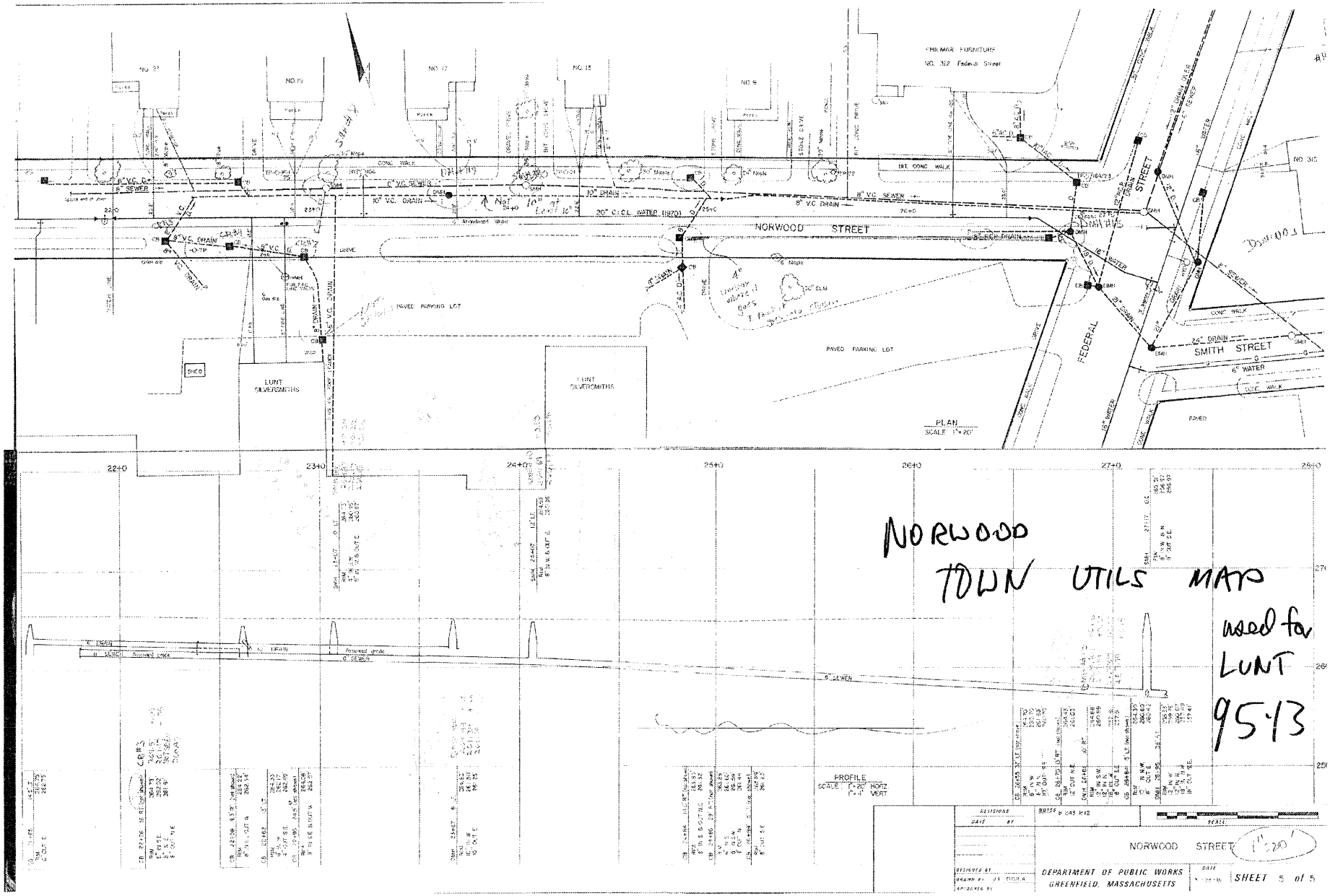


PROFILE
SCALE: HOR. 1" = 50'
VER. 1" = 5'

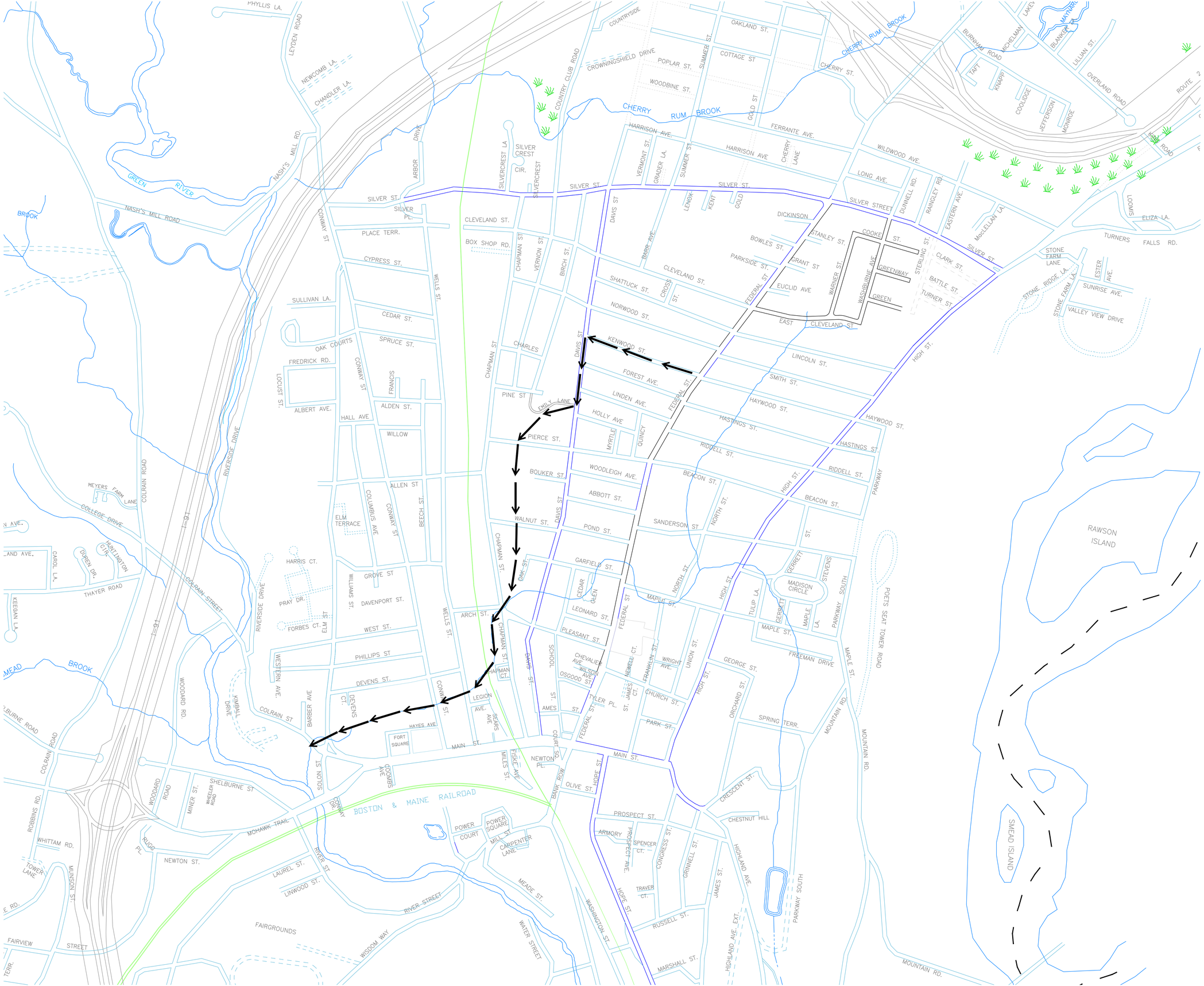
TOWN UTIL MAP
KENWOOD

DESIGNED BY		NOTES BOOK 281-1, 92-97	
DRAWN BY	J.R.D.		
TRACED BY			
CHECKED BY		KENWOOD STREET	
APPROVED BY		FEDERAL ST. TO HOUSE 20.	
		DEPARTMENT OF PUBLIC WORKS GREENFIELD, MASSACHUSETTS	DATE 7-11-79

SHEET 3 of 3



NORWOOD
TOWN UTILS MAP
used for
LUNT
9513


PHYLLIS LA.
LEYDEN ROAD
NEWCOMB LA.
CHANDLER LA.
NASH'S MILL RD.
GREEN RIVER
NASH'S MILL ROAD
BROOK
CONWAY ST
ARBOR DRIVE
SILVER CREST CIR.
SILVERCREST LA
SILVERCREST
SILVER ST.
SILVER PL.
PLACE TERR.
CYPRESS ST.
CLEVELAND ST.
BOX SHOP RD.
CHAPMAN ST
VERNON ST.
BIRCH ST.
WELLS ST.
SULLIVAN LA.
CEDAR ST.
OAK COURTS
SPRUCE ST.
FREDRICK RD.
LOCUST ST.
CONWAY ST
FRANCIS
ALBERT AVE.
HALL AVE
ALDEN ST.
WILLOW
ALLEN ST
COLUMBUS AVE
CONWAY ST
BEECH ST.
ELM TERRACE
HARRIS CT.
GROVE ST
PRAY DR.
FORBES CT.
ELM ST
WILLIAMS ST.
DAVENPORT ST.
WEST ST.
PHILLIPS ST
DEVENS ST.
DEVENS CT.
WESTERN AVE.
BARBER AVE
COLRAIN ST
KIMBALL DRIVE
WOODARD RD.
RIVERSIDE DRIVE
COLRAIN ROAD
I-91
RIVERSIDE DRIVE
MEYERS FARM LANE
COLLEGE DRIVE
AVE.
LAND AVE.
CAROL LA.
DIREN DR.
HUNTINGTON CTR.
THAYER ROAD
KEEGAN LA.
COLRAIN STREET
MEAD BROOK
BURNE ROAD
COLRAIN ROAD
WOODARD ROAD
MINER ST.
WHEELER ROAD
SHELBURNE ST
ROBBINS RD
WHITTAM RD.
TOWER LANE
MUNSON ST.
RUGG PL.
NEWTON ST.
MOHAWK TRAIL
LAUREL ST.
LINWOOD ST.
RIVER ST
FAIRGROUNDS
WISDOM WAY
RIVER STREET
WATER STREET
MEADE ST.
BOSTON & MAINE RAILROAD
POWER COURT
POWER SQUARE
MILL ST
CARPENTER LANE
CONWAY DR.
SOLON ST.
COOMBS AVE
MILES ST.
FISK AVE
NEWTON PL.
BANK ROW
OLIVE ST.
HOPE ST
HAYES AVE
FORT SQUARE
MAIN ST.
COURT SQ
LEGION AVE.
SEARS AVE
AMES ST.
SCHOOL ST.
DAVIS ST
CHAPMAN CT.
CHAPMAN ST
ARCH ST.
PLEASANT ST.
LEONARD ST.
CEDAR GLEN
OAK ST.
GARFIELD ST.
POND ST.
WOODLEIGH AVE.
ABBOTT ST.
BOUKER ST.
WALNUT ST.
DAVIS ST
CHAPMAN ST.
ELM ST
FEDERAL ST
NORTH ST.
HIGH ST.
BEACON ST.
SANDERSON ST
NORTH ST.
HIGH ST.
RIDDELL ST.
HASTINGS ST.
HAYWOOD ST.
SMITH ST.
LINCOLN ST.
KENWOOD ST.
DAVIS ST
FOREST AVE.
LINDEN AVE.
HOLLY AVE
MYRTLE
QUINCY
FEDERAL ST
EMILY LANE
PIERCE ST.
CROSS ST.
SHATTUCK ST.
NORWOOD ST.
CHARLES
CHAPMAN ST
EAST CLEVELAND ST.
FEDERAL ST.
EUCLID AVE
PARKSIDE ST.
BOWLES ST.
GRANT ST
BARR AVE.
DAVIS ST
DICKINSON
LENOX
KENT
GOLD
HARRISON AVE.
VERMONT ST.
GRADER LA.
SUMMER ST.
CHERRY LANE
HARRISON AVE.
FERRANTE AVE.
GOLD ST.
SUMMER ST.
COTTAGE ST
OAKLAND ST.
COUNTRYSIDE
CROWNINGSHIELD DRIVE
POPLAR ST.
WOODBINE ST.
COUNTRY CLUB ROAD
CHERRY RUM BROOK
CHERRY ST.
CHERRY RUM BROOK
WARNER ST.
WASHBURNE AVE
GREENWAY
GREEN
STERLING ST.
CLARK ST.
BATTLE ST.
TURNER ST
COOKE ST.
STANLEY ST.
SILVER STREET
SILVER ST.
WILDWOOD AVE.
LONG AVE.
DUNNELL RD.
RANGLEY RD.
EASTERN AVE.
McCLELLAN LA.
LOOMIS
ELIZA LA.
TURNERS FALLS RD.
STONE FARM LANE
STONE RIDGE LA.
STONE FARM LA.
ESTER AVE.
SUNRISE AVE.
VALLEY VIEW DRIVE
BURNHAM ROAD
WICHELMAN
MAYNARD
BLANKER
LILLIAN ST.
OVERLAND ROAD
TAFT
KNAPP
COOLIDGE
JEFFERSON
MONROE
ROUTE 2
RAWSON ISLAND
SMEAD ISLAND
POETS SEAT TOWER ROAD
PARKWAY SOUTH
MOUNTAIN RD.
CRESCENT ST.
CHESTNUT HILL
PROSPECT ST.
ARMORY
PROSPECT AVE.
SPENCER CT.
CONGRESS ST.
GRINNELL ST.
HIGHLAND AVE.
JAMES ST.
TRAVER CT.
RUSSELL ST.
MARSHALL ST.
HIGHLAND AVE. EXT.
MADISON CIRCLE
DERBETT
STEVENS
TULIP LA.
MAPLE LA.
MAPLE ST.
FREEMAN DRIVE
ORCHARD ST.
SPRING TERR.
PARK ST.
CHURCH ST.
GEORGE ST.
WRIGHT AVE.
FRANKLIN ST.
HOWELL CT.
JAMES CT.
TYLER PL.
CHEVALIER AVE.
WILSON AVE.
OSGOOD AVE.
UNION ST.
RIGHT ST.

MassDEP - Bureau of Waste Site Cleanup

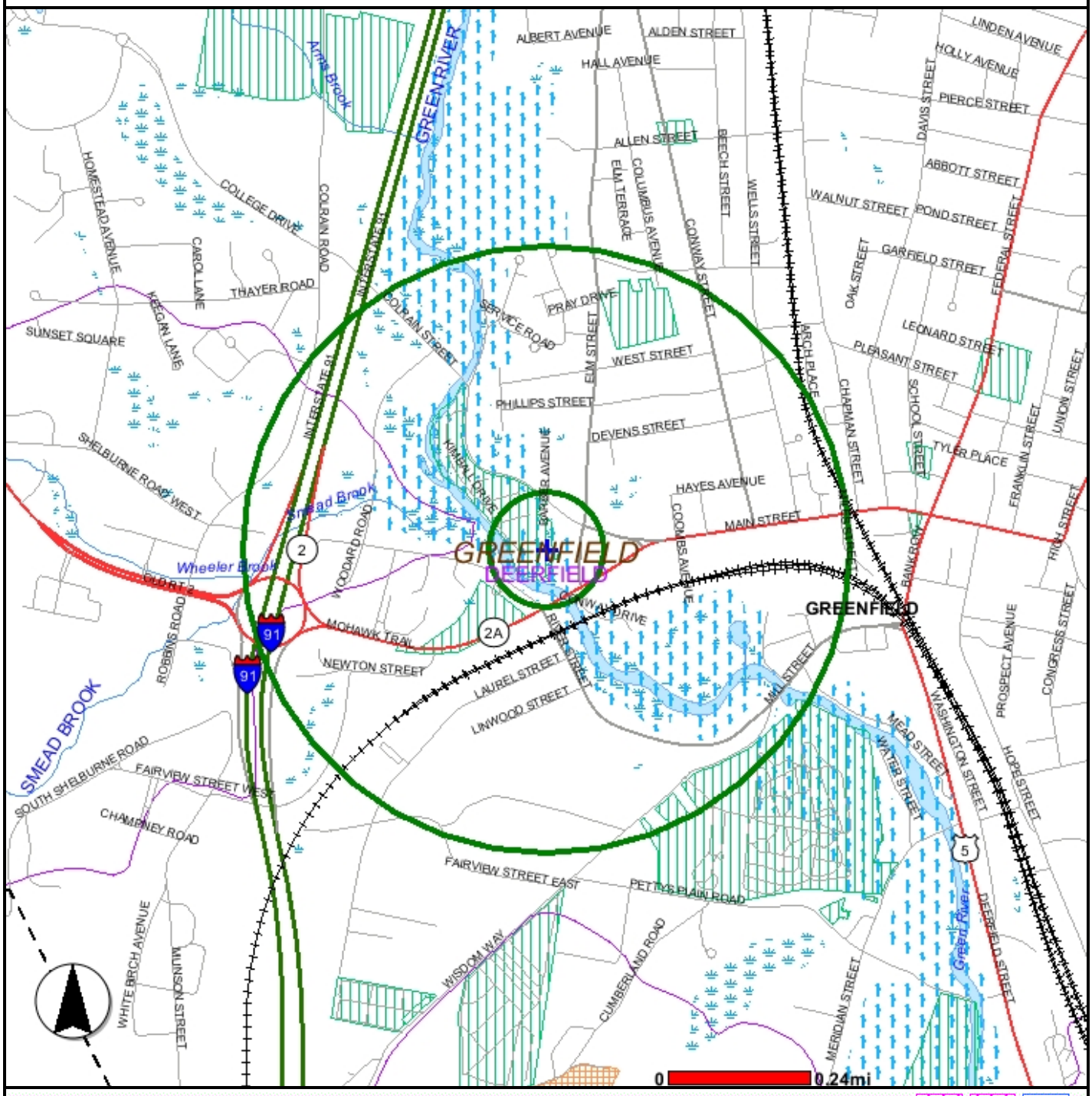
MCP Numerical Ranking System Map: 500 feet & 0.5 Mile Radii

Site Name:
Catch Basin Outfall Area
Greenfield, MA
RTN:
NAD83 MA Coordinates:
108674mE, 926856mN

April 4, 2012

The information shown on this map is the best available at the date of printing. For more information please refer to www.mass.gov/mgis/massgis.htm

MassDEP
Commonwealth of Massachusetts
Department of Environmental Protection



Roads: Limited Access, Divided, Other Hwy, Major Road, Minor Road, Track, Trail

Boundaries: Town, County, DEP Region; Train; Powerline; Pipeline; Aqueduct

Basins: Major, Sub; Streams: Perennial, Intermittent, Man Made Shore, Dam

Aquifers: Medium Yield, High Yield, EPA Sole Source

Non Potential Drinking Water Source Area: Medium, High (Yield)

PWS Protection Areas: Zone II, IWPA, Zone A

Hydrography: Open Water, PWS Reservoir, Tidal Flat

Wetlands: Freshwater, Saltwater, Cranberry Bog

FEMA 100yr Floodplain; Protected Open Space; ACEC

NHESP: Est Rare Weland Habitat, Certified Vernal Pool

DEP Permitted Solid Waste Landfill

PHOTOGRAPHS OF OUTFALL SAMPLE LOCATIONS NEAR SOLON STREET, GREENFIELD, MA, TAKEN ON APRIL 11, 2012

Photo 1. Storm drain daylight location.

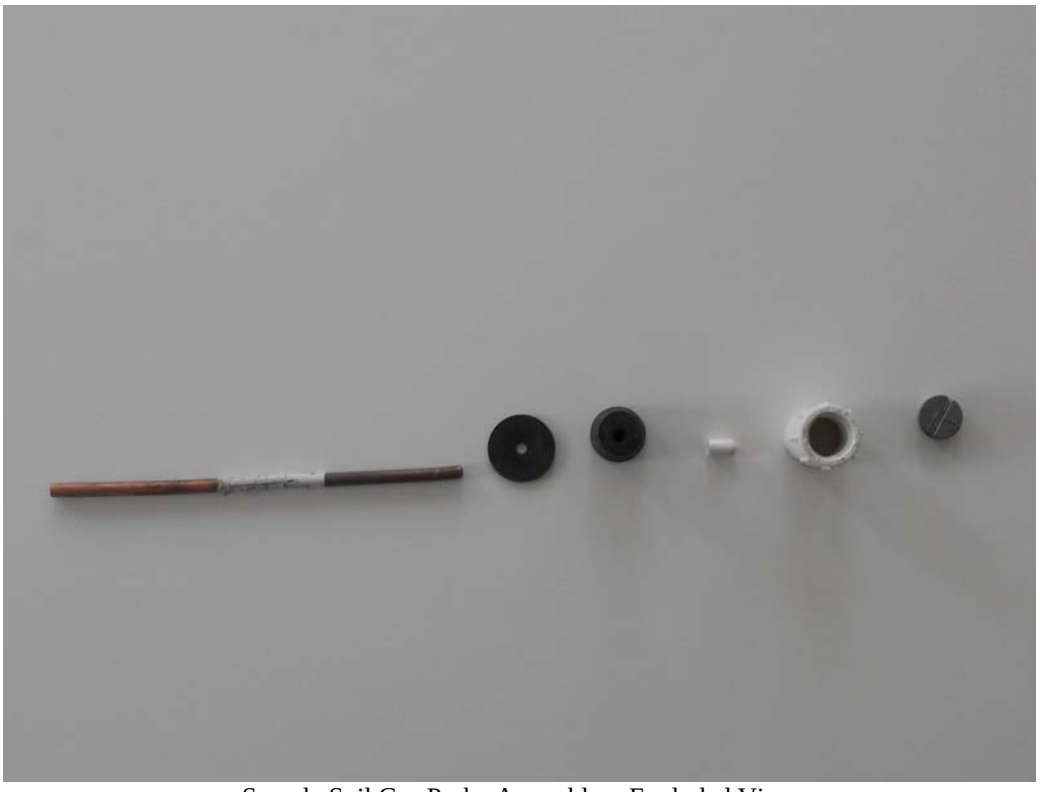
Photo 2. View of outfall and ponding area below.

Photo 3. Sample location OF-1.

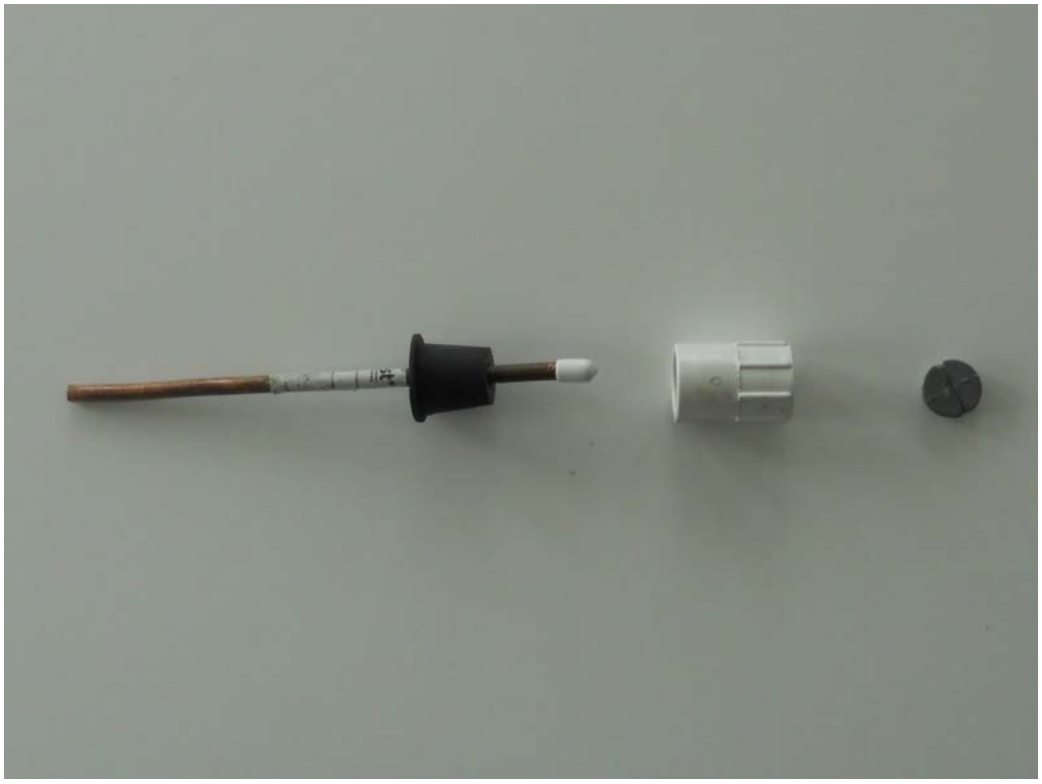
Photo 4. Sample location OF-2.

APPENDIX G
SOIL GAS POINT CONSTRUCTION DETAILS AND SAMPLING LOGS

Sample Soil Gas Probe Assembly



Sample Soil Gas Probe Assembly – Exploded View



Sample Soil Gas Probe Assembly – Partly Assembled

Sample Soil Gas Probe Assembly

Summa Canister Soil Gas Sampling Log

Project Name: Lunt Silversmith
Location: Greenfield, MA
Weather: Cloudy / Rain
Project Number: 1753-03-01
Date: 1/26/12
Sampler: BMW

SAMPLE DESIGNATION: SG-4
Lab Canister Number: 0164
Lab Regulator Number: 826
SAMPLING SEQUENCE NUMBER: 1 of 4

SAMPLING DATA

Time	1535	1545	1555	1605	
He in Shroud (%)	49.8%	44.2%	39.7%	34.5%	
He in line (ppm)	0.0	1225	1025	1350	
Ambient He (ppm)	0	0	0	0	
PID in line (ppmv)	21.6	13.3	7.4	8.0	
Ambient PID (ppmv)	0.0	0.0	0.0	0.0	

ADDITIONAL DATA

Time Initial: 1535
Time Final: 1605
Pressure Initial: 30 "Hg
Pressure Final: 0 "Hg
Temperature Initial: 50 °F
Temperature Final: 50 °F
Can size: 3 L
Fill time: 30 minute
(based on regulator setting)

Laboratory: Spectrum
Analysis: TO-15

Notes and Observations (Odors, etc):

Describe soil gas point location: Adjacent to degreaser, western side of building

Soil gas point construction/depth: Copper tubing = 6" Washer, stopper, PVC cap cemented in-place

PID used: Thermo 580B w/ 11.8 eV lamp

Summa Canister Soil Gas Sampling Log

Project Name: Lunt Silversmith
Location: Greenfield, MA
Weather: Cloudy / Rain
Project Number: 1753-03-01
Date: 1/26/12
Sampler: BMW

SAMPLE DESIGNATION: SG-9
Lab Canister Number: 0134
Lab Regulator Number: 1316
SAMPLING SEQUENCE NUMBER: 2 of 4

SAMPLING DATA

Time	1615	1625	1635	1645	
He in Shroud (%)	39.5%	31.7%	24.4%	19.1%	
He in line (ppm)	0	725	1075	850	
Ambient He (ppm)	0	0	0	0	
PID in line (ppmv)	0	1.9	1.3	0.4	
Ambient PID (ppmv)	0	0	0	0	

ADDITIONAL DATA

Time Initial: 1615
Time Final: 1645
Pressure Initial: 29 "Hg
Pressure Final: 0 "Hg
Temperature Initial: 50 °F
Temperature Final: 50 °F
Can size: 3 L
Fill time: 30 minute
(based on regulator setting)

Laboratory: Spectrum
Analysis: TO-15

Notes and Observations (Odors, etc):

Describe soil gas point location:

Soil gas point construction/depth: Copper length = 6" Washer, stopper, PVC ~~cap~~ cemented in-place

PID used: Thermo 580B w/ 11.8 eV lamp

Summa Canister Soil Gas Sampling Log

Project Name: Lant Silversmith
Location: Greenfield, MA
Weather: Cloudy / Rain
Project Number: 1753-03-01
Date: ~~1/26/12~~ 1/27/12
Sampler: BMW

SAMPLE DESIGNATION: SG-10
Lab Canister Number: 1078
Lab Regulator Number: 0054
SAMPLING SEQUENCE NUMBER: 3 of 4

SAMPLING DATA

Time	0840	0850	0900	0910	
He in Shroud (%)	40.6%	29.5%	18.5%	15.7%	
He in line (ppm)	0	1825	750	800	
Ambient He (ppm)	0	0	0	0	
PID in line (ppmv)	0.0	0.0	0.0	0.0	
Ambient PID (ppmv)	0.0	0.0	0.0	0.0	

ADDITIONAL DATA

Time Initial: 0840
Time Final: 0910
Pressure Initial: 29 " Hg
Pressure Final: 0 " Hg
Temperature Initial: 50 °F
Temperature Final: 50 °F
Can size: 3 L
Fill time: 30 minute
(based on regulator setting)

Laboratory: Spectrum
Analysis: TO-15

Notes and Observations (Odors, etc): between 0850 and 0900, accidentally hit ~~the~~ shroud ∴ loss of helium
Describe soil gas point location: Loading dock area
Soil gas point construction/depth: Copper tubing = 6" Washer, stopper, PVC cap cemented in-place
PID used: Thermo 580B w/ 11.8 eV lamp

Summa Canister Soil Gas Sampling Log

Project Name: Lunt Silversmith
Location: Greenfield, MA
Weather: Cloudy / Rain
Project Number: 1753-03-01
Date: ~~1/26/12~~ 1/27/12
Sampler: BMW

SAMPLE DESIGNATION: SG-11
Lab Canister Number: 0131
Lab Regulator Number: 0040
SAMPLING SEQUENCE NUMBER: 4 of 4

SAMPLING DATA

Time	0914	0924	0934	0944	
He in Shroud (%)	45.3%	39.8%	33.3%	29.4%	
He in line (ppm)	0	125	350	175	
Ambient He (ppm)	0	0	0	0	
PID in line (ppmv)	0.0	0.0	0.0	0.0	
Ambient PID (ppmv)	0.0	0.0	0.0	0.0	

ADDITIONAL DATA

Time Initial: 0914
Time Final: 0924
Pressure Initial: 29 " Hg
Pressure Final: 0 " Hg
Temperature Initial: 50°F
Temperature Final: 50°F
Can size: 3 L
Fill time: 30 minute
(based on regulator setting)

Laboratory: Spectrum
Analysis: TO-15

Notes and Observations (Odors, etc):

Describe soil gas point location: Office area ⇒ southwestern office

Soil gas point construction/depth: Copper tubing = 6" Washer, stopper, PVC cap cemented in-place

PID used: Thermo 580B w/ 11.8 eV lamp