

41-55 Washington Street Property

City of Auburn

Cayuga County, New York

**Phase II Environmental
Site Assessment
Site Investigation Report**

October 2013

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Executive Summary

A Phase II Brownfield Site Investigation was completed for the 41-55 Washington Street Property in Auburn, New York. The Site Investigation was conducted in conformance with the EPA-approved Limited Phase II Environmental Site Assessment Sampling and Analysis Plan (SAP) and the following tasks have been completed by B&L:

- Site Survey and Preparation of Site Map,
- Subsurface Investigation,
- Groundwater Investigation,
- Data Validation

The potential use of the Site appears to be commercial or industrial, although no final end use has been specified at this time. Sampling locations were selected to focus on the former Dunn and McCarty shoe building areas that likely used or stored petroleum products (such as an Oil House and Engine Room). The Site Investigation field observations did not identify the presence of petroleum-impacted soil and fill material in the vicinity of these historical features. However, various individual semi-volatile organic compounds (SVOCs) were detected in fill material samples from four locations at concentrations exceeding NYSDEC Part 375 Soil Cleanup Objectives (SCOs). The specific SVOCs reported in these samples appear to be associated with the ash and cinder fill material rather than petroleum fluid releases.

The northern portion of the Site contains hard-fill reportedly from City road projects. This hard-fill was observed to be composed of broken concrete, soil, gravel and lesser volumes of brick, cobbles/boulders, crushed asphalt and metal (re-bar, pipes, steel mesh). One sample representative of this hard-fill contained concentrations of cadmium, barium and copper exceeding Part 375 Restricted-residential and/or Commercial Use SCOs.

The fill supporting the north bank of the Owasco Outlet and the area between the Owasco Outlet and a water raceway consists of predominately brick, broken concrete, cobbles/boulders and metal (pipes, steel mesh) in a matrix of ash and cinders. This fill appears to be from the demolition of the former buildings at the Site. Two samples representative of this fill contained concentrations of acetone exceeding Part 375 Restricted-residential SCO. Several SVOCs and metals exceeding Restricted-residential and/or Commercial Use SCOs were also reported in multiple samples. A more limited set of samples contained two SVOCs (benzo(a)pyrene and dibenzo(a,h)anthracene) and one metal (arsenic) exceeding Industrial Use SCOs. The fill material evaluation demonstrated that fill composition varies across the Site.

Groundwater samples did not contain concentrations of SVOCs or polychlorinated biphenyls (PCBs) exceeding groundwater standards. One VOC (benzene) was detected in one groundwater sample (collected from the southeast corner of the Site (upgradient) at a concentration slightly exceeding the groundwater standard. Three metals (iron, lead, and sodium) were detected in one or more groundwater well samples at concentrations exceeding groundwater standards. Elevated metals are likely attributable to suspended sediments or soluble elements from the natural soils or fill material.

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1.0 Introduction

1.1 Purpose

The City of Auburn received a Brownfields Assessment Grant from the U.S. Environmental Protection Agency (EPA) to investigate and assess several properties including the 41-55 Washington Street property (Site). A Phase I Environmental Site Assessment (ESA) of the Site was performed by Clough Harbour & Associates LLP (CHA) in March 2012. The intent of this Phase II Site Investigation (Site Investigation) was to characterize recognized environmental conditions (RECs) at the Site identified during the Phase I ESA. The investigation scope was defined in Limited Phase II ESA Sampling and Analysis Plan (SAP) prepared by Asbestos & Environmental Consulting Corporation (AECC) dated April 9, 2013. The SAP was approved by a USEPA Project Quality Assurance Officer in April 2013.

As stated in the approved SAP, a limited sampling plan was prepared to accomplish the following objectives:

- Investigate the “oil house”, as identified during the review of the Sanborns.
- Investigate the “engine room”, as identified during the review of the Sanborns.
- Collect groundwater quality information through the installation of a limited monitoring well network.
- Investigate areas previously occupied by factory operations.

These objectives relate to specific RECs presented in Section 1.4.5.1 and 1.4.5.2 of this Phase II Site Investigation Report.

1.2 Special Terms and Conditions

The Site Investigation was conducted in general accordance with the approved Limited SAP and with the latest American Society of Testing and Materials (ASTM) guidance on performing a Phase II Environmental Site Assessment.

Relevant Guidance and Regulatory Criteria (RGRC) to be utilized for this project include, but are not limited to:

- USEPA Region 2 Brownfields Project Planning Guidance, Volumes 1 and 2, dated May 2000 (Final)
- NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation, May 2010 (DER-10)
- 6 NYCRR Part 375 Environmental Remediation Programs
- NYSDEC T.O.G.S. 1.1.1 – Ambient Water Quality Standards & Guidance Values and Groundwater Effluent Limitations

- ASTM E1903-11 - Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process
- 6 NYCRR Part 703 – Water Quality Standards

1.3 Limitations and Exceptions of Assessment

The information, environmental conditions, and conclusions presented in this report as a result of the Phase II Site Investigation are based on B&L's 2013 field investigations and sampling activities. The approved Limited SAP states that sampling activities would not be conducted at some areas (summarized in Section 1.4.5.2 of this report) where recognized environmental concerns were identified during the Phase I ESA process.

1.4 Background

1.4.1 Site Description and Features

The Site consists of one tax parcel (TMP# 115.51-1-31) located at 41-55 Washington Street in the City of Auburn, Cayuga County, New York (see Figure 1). The property is approximately 7.50 acres in size and is divided into three sections, as exhibited in the property boundary survey (Appendix A). The largest area is north of the Owasco Outlet. A narrow area of land is present between the Owasco Outlet and a water raceway, and another narrow area is located between the raceway and a railroad grade south of the Site. The Site is bounded to the east by Washington Street, to the north by West Street, and to the south by the railroad grade. The western property boundary abuts heavily wooded land along the Owasco Outlet. The property also includes a strip of land east of Washington Street occupied by the upstream reach of the raceway.

The Site is currently mostly vacant land that is partially overgrown with brush. The City of Auburn has a sewer pumping station/building on the western portion of the Site at the end of Venice Street. Land south of the Owasco Outlet and north of the raceway is heavily wooded (Figure 2). The raceway contains a complex series of grated spillways, steel pipe enclosed culverts, and concrete enclosed culverts. Remnants of concrete loading bays (associated with the railroad grade) and concrete retaining walls along the southern property boundary were observed. The northern third of the Site contains an asphalt paved parking lot that is being covered with several feet of hard-fill.



Hard-fill Area – Northern portion of Site along West Street



Raceway flowing East to West across the Site

1.4.2 Physical Setting

The Site is accessible from the north by West Street and from the west by Washington Street. The Site is divided by the Owasco Outlet and a water raceway. Surface gradient is generally from the south and east (where State Route 5/20 and a railroad grade are present) to the north and west. Water flow in both the Owasco Outlet and raceway is from east to west. Bedrock (nearly flat-lying) is present in the bed of the Owasco Outlet channel. The ground surface on both side-banks of the Owasco Outlet contains brick, ash and broken concrete.

1.4.3 Site History and Land Use

The Phase I ESA revealed that the Site was formerly the Dunn & McCarthy shoe manufacturing facility which operated from 1895 through 1985. The ESA also identified the presence of two reported petroleum spills at this facility, although each has since been administratively closed by the NYSDEC. Structures previously existing on the Site were demolished, and the construction and demolition debris reportedly remains buried onsite. The City of Auburn obtained ownership of the property in 1995 after the previous owner defaulted on taxes. A detailed historical use description is provided in Section 4.4 of the Phase I ESA.

1.4.4 Adjacent Property Land Use

The land use surrounding the property is a mixed zone of mostly commercial and light industrial. Land use to the north of the Site consists of West Street, residential development, and the Auburn Correctional Facility (northeast). An active railroad grade and State Route 5/20 are present to the south (upgradient) of the Site. Washington Street, an auto part center, and industrial park are present to the east (also upgradient). Venice Street, residential development, and wooded undeveloped land along the Owasco Outlet are present to the west of the Site. The area is serviced by public utilities including natural gas, electricity, municipal sewer, and public water.

1.4.5 Summary of Previous Assessments

1.4.5.1 Phase I ESA

The March 2012 Phase I ESA prepared by CHA identified the following recognized environmental conditions (RECs):

- Documented storage and release of petroleum materials on the Site while it was in operation as the Dunn & McCarthy Shoe Manufacturer. This REC is known herein as the Documented Past Storage and Release of Petroleum REC.
- A long industrial history on the Site. This REC is known herein as Past Industrial History REC.
- The large amount of hard fill material on the Site which was generated by road reconstruction projects within the City. The City of Auburn reports that the material is clean fill, however no analytical documentation to attest to this fact is available. This REC is known herein as the Hard-fill REC.



1972 Sanborn Insurance Map – Depicts Dunn & McCarthy Shoe Factory

While not considered an REC, the Phase I ESA also noted the potential for demolition debris to contain asbestos and/or lead-based paint to be present in the subsurface material on the Site. Although not noted in the Phase I ESA, the Dunn & McCarthy Shoe Factory buildings burned down during a large fire in 1993.

1.4.5.2 Limited Phase II ESA Sampling and Analysis Plan

The approved Limited Phase II ESA Sampling and Analysis Plan (SAP) prepared by AECC dated April 9, 2013 focused on characterization of the nature and extent site contamination resulting from the historical uses identified by the Phase I ESA. The SAP sampling was designed to evaluate the following:

- Investigate the “oil house” with a group of 5 borings
- Install 5 borings in the vicinity of the engine room
- Install 4 monitoring wells across the site to provide limited information regarding groundwater quality
- Install 7 test pits in area previously occupied by factory operations

The approved SAP states that the City elected not to proceed with sampling activities associated with the following:

- Performing a detailed investigation of the Site to include additional borings and groundwater sampling.

The SAP qualified the proposed limited Phase II activities as to “provide sufficient data to identify gross contamination in site soil and groundwater so that a detailed investigation can be designed to address, in addition detail, observed contamination issues”.

Based on the long-term historic industrial operations at the Site the expected primary site contaminants include petroleum hydrocarbons, metals, and polychlorinated biphenyls (PCBs).

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2.0 Phase II Activities

This section of the report discusses the methodologies used during the Site Investigation field activities to gather data necessary to characterize the physical and environmental conditions at the Site.

2.1 Site Survey and Preparation of Site Map

A planimetric site base map was prepared from a topographical and boundary survey completed by licensed surveyors from Popli Design Group, P.C. The survey data was used to develop Site investigation figures for the presentation of data collected during the investigation (i.e., sampling locations, etc.). The base map identifies the property boundaries, utility poles, adjacent streets and properties, and other distinguishing features present at the Site. Newly installed groundwater monitoring well locations and elevations were also surveyed. The completed survey is provided as Appendix A. The survey was also forwarded to City of Auburn staff on August 7, 2013.

2.2 Subsurface Investigation Methodology

The subsurface investigation consisted of test pit excavation to evaluate demolition debris extent and soil borings to evaluate soil quality in areas previously occupied by factory operations.

2.2.1 Test Pit Excavation

Seven (7) test pits were excavated on May 16, 2013 in the approximate locations shown in the Limited SAP to depths ranging from 6.1 to 8.3 feet below ground surface (bgs). Test pits (designated with a TP prefix) are shown on Figure 3. The test pits were excavated to collect field observation data as well as soil sample data. Ten (10) soil samples were collected from test pit excavations. Test pit logs are provided in Appendix B and test pit soil sample data are included in Table 1. Trec Environmental Inc. of Spencerport, New York (Trec Environmental) provided a Kubota Super Series KX121-3 mini-excavator and operator to excavate test pits under the supervision of B&L field staff. B&L field staff evaluated excavated material by entering the excavation until excavation depths were greater than 3 feet, when remaining excavated materials were evaluated in the backhoe bucket. Observations were recorded on the test pit logs.

Using a calibrated photo-ionization detector (PID), test pit samples were screened for total volatile organic vapors. PID calibration records are provided in Appendix E. Upon sample retrieval, the B&L field staff typically screened the sample directly with the PID and recorded the measurements in a field log. Soil samples were then placed in a sealable bag and allowed to equilibrate with ambient daily temperatures, which generally ranged from 75-85 degrees Fahrenheit. The headspace was then measured by inserting the PID into the bag and recording the peak vapor concentration.

2.2.2 Subsurface Soil Borings

Thirteen (13) soil borings (designated with an “SB” prefix) and three (3) soil borings converted to monitoring wells (designated with an “MW” prefix) were completed during the subsurface investigation drilling activities on May 28-30, 2013. Figure 3 shows the location of the subsurface soil borings; while the subsurface soil sampling results are discussed below in Section 3.3.3. The borings were completed in the approximate locations shown in the Limited SAP.

Drilling activities were performed by Trec Environmental using a track-mounted Geoprobe 660DH direct-push rig. Wells were installed using the same rig with rotary driven 4 1/4-inch ID hollow-stem augers. A Barton & Loguidice hydrogeologist observed the drilling activities. Soil samples were continuously collected throughout the total depth of the boring using a 1.5-inch diameter, four-foot long macro-core sampler. All drilling equipment and tools were decontaminated on-site in between each drilling location.

The soil borings were advanced to refusal. The samples were examined for moisture content and logged and described according to the Burmister Soil Classification System. Soil samples were also examined for visual and/or olfactory evidence of contamination. Boring logs are provided in Appendix C.

Using a calibrated photo-ionization detector (PID), each soil sample taken during the soil boring program was screened for total volatile organic vapors using the methodology presented in Section 2.2.1 above. The sample with the highest PID measurement from each boring was selected for laboratory analysis of VOCs, SVOCs, TAL Metals, and PCBs in accordance with the SAP. In the absence of observed potential contamination, one sample from immediately above the saturated zone was collected from each boring. A total of 13 subsurface soil samples (plus 1 blind duplicate sample) were collected during the Site Investigation.

Soil samples were collected in accordance with the SAP. The soil samples submitted for VOCs analysis were collected using disposable plunger type samplers and field preservation method as per USEPA Method SW846-5035. Each VOC sample consisted of 2 vials containing methanol preservative and 1 vial containing sodium bisulfate preservative. Soil samples submitted for analysis of SVOCs, PCBs, and metals were slightly homogenized in decontaminated stainless steel bowls and then placed in the appropriate sample containers. All samples were packed in a cooler on ice and picked-up by a laboratory courier under chain of custody procedures defined in the SAP.

Soil sampling equipment (stainless steel bowl and spatula, etc.) were decontaminated in between use by applying an Alconox® wash and deionized water rinse. The equipment was air dried, then wrapped in aluminum foil until being used again. As further described in Section 3.2.3, in order to ensure acceptable field sampling and equipment cleaning techniques, field blanks were prepared at the Site by pouring laboratory-provided, analyte-free water over the decontaminated sampling device (e.g., macro-core and acetate sleeve) and the stainless steel spatula and mixing bowl, and collecting the runoff into sample bottles. Field equipment blanks were then submitted for analysis of VOCs, SVOCs, metals and PCBs.

2.3 Groundwater Investigation

Three (3) monitoring wells were installed as part of the subsurface investigation. The new wells were installed to perform a number of functions including:

- Collect water level elevation measurements to determine the direction of groundwater flow and seasonal variations in water table conditions;
- Determine the horizontal hydraulic gradient of groundwater flow;
- Characterize levels of contaminants present in the groundwater, if any; and
- Determine potential routes of contaminant migration.

2.3.1 Monitoring Well Installation

As mentioned above, three (3) soil borings were completed as new monitoring wells. The monitoring wells consisted of two-inch diameter PVC with five to ten feet of 0.010-inch slot screen, positioned to straddle the water table. Each well was fitted with the appropriate length of riser and a protective manhole with an expandable rubber-seal cap.

In general, a washed silica sand pack was placed around the screen and extended above the top of the screened interval. An approximate 2-ft thick bentonite plug was placed in the well annulus above the sand pack. The remaining open annulus was filled with grout as part of the surface completion. The monitoring well installation logs are included with the soil boring logs in Appendix C.

2.3.2 Monitoring Well Development

On June 12th (six days after installation) the wells were developed by B&L staff. A PID was used to monitor for the presence of volatile organic vapors on the rim of the monitoring well prior to development. Well development was conducted to remove sediments and suspended particles from the screened interval and filter pack. As well as removing the residual effects of drilling disturbance, the procedure also results in the preferential sorting and distribution of natural formation particles within the emplaced sand pack, creating a natural filter that enables formation waters to enter the well and resists subsequent infilling by sediments.

Field parameters (temperature, pH, conductivity, and turbidity) were monitored during development activities to assess the progress of the well development effort. The wells were considered developed when the field parameters stabilized to a point such that a 10% or less difference was observed between subsequent readings, where feasible. Visual observations of water clarity were also made and recorded during the development process. Well development deviated from this protocol as the development pump minimal flow rate caused the well to dewater to the pump intake. Well development records are included as Appendix C.

2.3.3 Low Flow Groundwater Sampling

Three (3) groundwater samples (including one QA/QC sample) were collected and submitted for laboratory analysis of VOCs, SVOCs, TAL metals, and PCBs. All groundwater samples were collected in substantial conformance with the USEPA Region II “Ground Water Sampling Procedure for Low Stress (Low Flow) Purging and Sampling”. Low flow sampling data and groundwater sample field data sheets are included in Appendix D.

The objective of the low-flow procedure is to collect groundwater samples from monitoring wells while exerting minimum stress on the water-bearing formation and minimizing the disturbance of sediment in the well. The general approach is to minimize the drawdown in the well during purging, thereby reducing disturbance prior to and during sampling. Typically this is accomplished by limiting the flow rate during purging and sampling to rates in the 100 to 500 ml/min range using an adjustable rate, positive displacement groundwater sampling pump, as detailed below. The intended advantage of this procedure is the reduction in the turbidity and aeration of the samples; thereby producing samples that are more representative of the natural groundwater conditions. In summary, the following procedure was followed at each monitoring well location:

1. Set up: Upon arrival at each location, a sheet of new polyethylene was placed on the ground to ensure a clean working surface for the monitoring and sampling equipment.
2. Measure Depth to Groundwater: The static water level (SWL) was measured using a decontaminated water level meter to within the nearest 0.01 foot from the reference point and recorded in the sampling log.
3. Install Pump: The pump was slowly lowered into the well taking care to keep the intake at least two feet above the bottom of the well to prevent mobilization of sediment from the bottom. A QED Sample Pro MicroPurge 1.75” portable bladder pump with dedicated bladders was used in conjunction with a QED MP50 (compressor and control box) and 1/4-inch diameter dedicated discharge tubing. The depth of the pump intake was recorded in the sampling log.
4. Purging: To the extent possible, the pump was started at 500 milliliters per minute or less. The water level was monitored frequently with a water level meter after the start of purging and regularly every three to five minutes once the water level had generally stabilized. Where possible, a steady flow rate and stabilized water level was maintained. To the extent feasible, the pumping was minimized so as to not induce a drawdown in excess of approximately 0.3 feet. Pump rate and water level measurements were recorded in the sampling log.
5. Monitor Indicator Parameters: During purging of the well, an YSI 6920 V2-2WQ Sonde low-flow sampling system, was used with a flow-through cell to continuously monitor the following field indicator parameters: turbidity, temperature, specific conductance, pH and dissolved oxygen (D.O.). Indicator parameters were logged every 3 to 5 minutes. Generally the well was considered stabilized and ready for sample collection when three consecutive readings were within a maximum range (from minimum to maximum measurements) as follows: +0.1 for pH, 3% for specific

conductance, +10% for D.O., +10 mV for ORP, and +10% for turbidity. Calibration records for this instrument are provided in Appendix E.

6. Collect Samples: Upon achieving the targeted indicator parameter stabilization, the discharge tubing was disconnected from the flow-through cell and the sample bottles were filled directly from the tubing by allowing the pump discharge to flow gently down the inside of the container with minimal turbulence. Sample bottles were filled in the order designated in the SAP.
7. Remove Pump and Tubing: After collection of the samples, the pump was turned off, removed from the well, and decontaminated. The discharge tubing was discarded.
8. Close Down: After sampling and removing the pump, the well depth was measured and recorded in the sampling log. The well was then secured.

Deviations (if any) from the above protocol that were necessary to accomplish sample collection are documented in the Field Sampling Records. Following groundwater sample collection at each well location, the pump was disassembled and decontaminated by applying a thorough Alconox[®] and deionized water wash and deionized water rinse.

As further described in Section 3.2.3, in order to ensure acceptable field sampling and equipment cleaning techniques, field banks were prepared each day that groundwater samples were collected with non-dedicated or non-disposable equipment.

2.4 Data Validation

All sample data sets generated for this project (soil, groundwater, and quality assurance/quality control samples) were subjected to an independent third-party data validation by EnviroAnalytics, Inc. from Utica, NY. Copies of the validation summaries and validated laboratory reports are included in Appendix F. The data validation indicates the site data to be considered technically defensible and usable in the validated form. Minor changes to laboratory qualifiers (U, J, E, UJ etc.) were made during the validation and these changes are reflected in Appendix F documentation.

3.0 Evaluation and Presentation of Results

This section presents data collected through field observations made during the Site Investigation activities. The information gathered during the physical investigation can aid in understanding and interpreting the analytical results.

3.1 Field Observations

3.1.1 Surficial Features

Fill materials occupy much of the northern portion of the Site. As previously noted, this space has been used as a hard-fill storage area for various City projects. A water raceway is located south of the Owasco Outlet. The raceway contains a complex series of unmaintained grated spillways, steel pipe enclosed culverts, and concrete enclosed culverts. Remnants of concrete loading bays (associated with the railroad grade) and concrete retaining walls along the southern property boundary were observed. The ground surface on both side-banks of the Owasco Outlet contains brick, ash and broken concrete.

Two monitoring wells were observed on the large area of the Site north of the Owasco Outlet. The purpose of the wells was not identified and the wells were not accessed or sampled. These wells are noted on Figure 3 and on the property survey provided in Appendix A.



Test Pit 2 – Soil and Broken Concrete Fill – Hard-fill Area



Test Pit 5 – Brick Fill Between Owasco Outlet and Raceway

3.1.2 Subsurface Fill

Fill material was observed in each test pit excavated. The fill thickness generally extended to within a few inches of the bedrock surface or in some test pits to buried concrete slabs. Test pits TP-1 and TP-2 were excavated in fill material that appeared representative of the hard-fill on the northern portion of the Site. This was composed of broken concrete, asphalt, cement block with minor brick, wood and boulders in a matrix of sandy soils. An apparent concrete slab was encountered in both of these test pits at a depth of 7.5 and 8.3 feet bgs.

The fill material in the test pits on both the south and north side of the Owasco Outlet (Test Pits TP-3 to TP-5) was typically crushed cement block and brick with burnt wood, metal pipes, sheet metal and cobbles in a matrix of ash and cinders. An apparent concrete slab was encountered in TP-5 at a depth of 6.1 feet bgs. Test pits TP-6 and TP-7 were advanced south of the raceway and the fill material in these excavations contained ash and cinders with abundant broken rock (angular limestone boulders) and minor brick and metal. The fill material along the Owasco Outlet appears to be consistent with building debris from the 1993 fire that destroyed the Dunn & McCarthy facility.



Test Pit 4 - Fill Material



Test Pit 5 - Metal Pipes and Concrete Slab

Similar fill material composition was encountered in the soil borings. The fill material was generally described as dark brown to black cinders and ash with varied amounts of crushed brick, crushed concrete, coal and broken rock.

Trace levels (3.0 ppmv) of volatile organic vapors were detected in the fill material encountered in TP-7 (located between the raceway and railroad grade). No other volatile organic vapors were detected within the test pits. Elevated levels (greater than 3 ppmv) of volatile organic vapors were detected in fill material encountered in two soil borings, SB-1 (12.5 ppmv) and SB-7 (9.0 ppmv).

3.1.3 Overburden Soils

Natural or undisturbed native soils above bedrock were identified in some test pits and soil borings as a discontinuous thin layer (0.5 to 1.0 feet) of silty clay noted above the bedrock surface. Thicker intervals of native or undisturbed soils were also encountered in soil borings SB-2 to SB-6, SB-8 and SB-13. Petroleum odors were not observed during sample collection and PID readings did not exceed 3.0 ppmv in overburden soils.

3.1.4 Bedrock

Bedrock was encountered in each test pit ranging in depth from 6.5 to 8.1 feet bgs (with the exception on TP-1, TP-2, and TP-5 where concrete slabs were encountered). Bedrock was encountered in each soil boring ranging in depth from 7.0 to 14.0 feet bgs. The bedrock was observed to be a grey to black crystalline limestone. Geologic mapping (NYS Geological Society Bedrock Geology – Finger Lakes Sheet) indicates that the bedrock unit is the Onondaga Limestone. The soil/bedrock interface in the test pits was dry (except for wet conditions in TP-7) and the rock surface was observed to be flat-lying or (in some test pits) broken into slabs. Fractured or crushed bedrock samples were brought to the surface in the macro-core cutting shoe at the bottom of borings SB-1, SB-2, SB-3, SB-6, SB-8, SB-9 and SB-12. Petroleum impacts were not noted in the bedrock samples.

3.1.5 Groundwater

Groundwater and water saturated soils were not encountered in the test pits which were excavated to the bedrock surface, with the exception of TP-7 which encountered wet fill material on top of bedrock. Wet soil/fill material was encountered in soil borings SB-7, SB-8, SB-12, and SB-13.

Three monitoring wells were installed to the top of bedrock. Static water levels were measured to be approximately 6.31 to 9.45 feet bgs in the three monitoring wells installed. Water level elevations measured in the monitoring wells indicated a general groundwater flow direction towards both the raceway and Owasco Outlet. Groundwater contours were not prepared as staff gauges on multiple points along the Owasco Outlet and raceway would be needed to determine groundwater gradients and flow direction. Figure 4 depicts the groundwater elevations based on static water levels collected during the groundwater sampling activities on June 24, 2013.

3.2 Analytical Soil and Groundwater Results

The following sections discuss the results of the Site Investigation sample analyses and identify the contaminant distribution at the Site. All analytical laboratory data packages were reported as NYSDEC CLP Category B deliverables. The validated analytical laboratory report summaries are included in Appendix F.

The goal for remediation at the Site is to allow the City to return the Site to productive use, but at this time a future use has not been proposed. Therefore, throughout the course of this report, the identified contaminants of concern in soil samples were initially compared to 6 NYCRR Part 375 Restricted-residential Soil Cleanup Objectives (SCOs), but then the results were compared to Commercial and Industrial Use SCOs which may also be applicable to the future land use. As stated in the Part 375 Regulations, the “Restricted-Residential” land use category shall only be used where there is a common ownership or a single owner/managing entity of the site; vegetable gardens and single-family housing are prohibited, but active recreational uses are allowed. The “Commercial” land use category primary purpose is buying, selling or trading of merchandise or services, and includes passive recreational uses, which are defined as public uses with limited potential for soil contact. The “Industrial” land use category primary purpose is manufacturing, production, fabrication or assembly processes and ancillary services, but does not include any recreational component. Identified contaminants were also compared to Part 375 SCO for the Protection of Groundwater. Groundwater data was compared to 6 NYCRR Part 703.5 Water Quality Standards.

3.2.1 Subsurface Soil/Fill Sampling Results

Subsurface samples collected from the test pits and soil borings across the eastern portion of the Site (depicted as TP-1 to TP-7, SB-01 to SB-13 on Figure 3) were analyzed for VOCs, SVOCs, TAL metals, and PCBs. The summary data is presented in attached Tables 1 and 2 and the validated laboratory analytical report summaries are included in Appendix F.

Subsurface Soil/Fill Sampling Results – VOCs

Acetone, which was detected in samples SB-6 2-4' and SB-11 7-8.3' at estimated concentrations of 143 microgram per kilogram (ug/kg) and 672 ug/kg, respectively, was the only VOC to exceed the Protection of Groundwater SCO (50 ug/kg). These acetone concentrations are below Restricted-residential, Commercial and Industrial Use SCOs.

Subsurface Soil/Fill Sampling Results – SVOCs

Several SVOC results exceeded SCOs, as described below.

- One SVOC ((benzo(a)pyrene) in samples TP-4 2-4' and TP-5 2-4', and two SVOCs (dibenzo(a,h)anthracene and benzo(a)pyrene) in samples SB-9 12-13.8' and SB-11 7-8.3', exceeded the Industrial, Commercial, Restricted-residential and Protection of Groundwater Use SCOs.
- Four SVOCs (dibenzo(a,h)anthracene, benzo(a)pyrene, benzo(a)anthracene and benzo(b)fluoranthene) in sample SB-11 7-8.3', exceeded Commercial Use SCOs, Restricted-residential and Protection of Groundwater Use SCOs.
- Several SVOCs in samples TP-4 2-4', TP-5 2-4', SB-9 12-13.8' and SB-11 7-8.3' were reported at concentrations exceeding Protection of Groundwater and/or Restricted-residential Use SCOs.

Subsurface Soil/Fill Sampling Results – Metals

Several metal results exceeded SCOs, as described below:

- Arsenic exceeded the Industrial, Commercial, Restricted-residential and Protection of Groundwater SCOs in two samples from soil boring SB-7.
- Arsenic, barium, copper and/or lead concentrations exceeded Restricted-residential and Commercial Use SCOs in several samples.
- Arsenic, barium, copper, mercury, cadmium and/or lead concentrations exceeded Restricted-residential SCOs in several samples.
- Four metals (arsenic, barium, lead and mercury) exceeded Protection of Groundwater SCOs in several samples.

Subsurface Soil/Fill Sampling Results – PCBs

PCBs were reported to be detected in samples TP-4 2-4' and SB-1 6-7' but at concentrations below the Restricted-Residential Use SCO. Remaining samples did not contain reported concentrations of PCBs above method detection limits.

3.2.2 Groundwater Sampling Results

Groundwater samples were collected using low flow sampling methods from each of the three newly installed wells at the Site (Figure 4). The samples were analyzed for VOCs, SVOCs, TAL metals, and PCBs. The summary data is presented in Table 3 and the validated laboratory analytical report summaries are included in Appendix F. Groundwater sampling field data are found in Appendix D.

Groundwater Sampling Results – VOCs

Benzene in monitoring well MW-3 was the only VOC reported above method reporting limits. Benzene was detected at 9.0 ug/L, which is above the groundwater standard for benzene (1 ug/L). MW-3 is located at the upgradient corner of the Site and appears to represent groundwater quality migrating onto the Site south of the raceway.

Groundwater Sampling Results – SVOCs

There were no reported detections of SVOCs in the groundwater samples collected.

Groundwater Sampling Results – PCBs

There were no reported detections of PCBs in the groundwater samples collected.

Groundwater Sampling Results – Metals

The groundwater sampling results for total metals demonstrate exceedances of the NYSDEC Part 703.5 Groundwater Standard for iron in samples from each well, lead in the sample from well MW-2, and sodium in the sample from well MW-1. The

remaining metals detected were at concentrations below groundwater standards or were below method reporting limits. No dissolved metals analyses were performed as part of the June 2013 sampling event, but turbidity values were generally low (16.8 NTU or less). As such, the total metals concentrations observed appear to be representative of groundwater conditions at the Site.

3.2.3 Quality Assurance/Quality Control

Several steps were taken in the field to ensure the integrity of the samples collected during the Site Investigation was maintained in accordance with the SAMP.

1. Decontamination Procedures - The decontamination of non-dedicated equipment and tools used during drilling, well installation and sampling activities was performed in accordance with the procedures outlined in the SAP and referenced protocols, and as described herein.
2. Documentation - The samples were delivered to the laboratory with appropriate chain-of-custody records. Relevant information regarding the sampling activities was provided on these records, including sampling date and time, sample identification, number of bottles filled at each sampling location, preservatives used, bottle size, sampling method, date and time of shipment, blanks included, and release signature.

Sampling data sheets were maintained in the field for each sampling location. Pertinent data, including sample location, date, volume purged, static water level, total well depth, weather conditions, sample appearance, parameters to be analyzed, and the results of field parameter determinations, were appropriately recorded. Groundwater sampling field data sheets are found in Appendix D and chain-of-custody records are provided with the respective laboratory data in Appendix F.

3. Equipment Calibration - Instrument calibrations were performed in general accordance with the SAP and reference protocols. Water quality instrument calibration records and PID calibration records are included in Appendix E.
4. Field Equipment Blanks - The purpose of analyzing field equipment blanks is to demonstrate that sampling procedures do not result in contamination of the environmental samples and to evaluate the effectiveness of the decontamination of field equipment performed by field personnel. In order to ensure acceptable field sampling and equipment cleaning techniques, field equipment blanks were prepared each day that sediment and soil samples were collected with non-dedicated or non-disposable equipment.

During soil sampling activities, field equipment blanks were prepared at the Site by pouring laboratory-provided, analyte-free water over the decontaminated sampling device (e.g., macro-core cutting shoe with a new attached acetate sleeve) and the stainless steel spatula and mixing bowl, and collecting the runoff into sample bottles.

During groundwater sampling activities, field equipment blanks were prepared at the Site each day that samples were collected using the decontaminated pump and the following procedure: The pump's removable intake screen was placed in a clean glass beaker; a short length of discharge tubing was attached to the pump and then, while holding the pump upside down, the sampler poured laboratory-provided, analyte-free water through an unused bladder and through the pump body until the water flowed through the discharge tubing into the glass beaker containing the intake screen. The water was then poured from the beaker into the sample bottles.

Field equipment blanks were submitted for analysis of VOCs, SVOCs, PCBs and metals. The groundwater sampling equipment blank did not contain concentrations of VOCs, SVOC, PCBs and metals above method reporting limits. There were no VOCs or PCBs detected in the soil sampling equipment blank samples. The soil sampling equipment blank sample contained trace estimated concentrations of one SVOC below method reporting limits. This sample also contained eight (8) metals, but seven (7) of these metals were also detected at an estimated concentration below reporting limits (RL). The analytical results for the field equipment blanks are presented in Table 3.

5. Trip Blanks and Temperature Blanks - A trip blank accompanied the groundwater sample coolers that were shipped to the laboratory. Trip blanks received identical handling as all on-site samples. This methodology assessed bottle preparation procedures and laboratory integrity. Temperature blanks accompanied the soil sample coolers that were shipped to the laboratory.

Trip blanks were submitted for analysis of VOCs. Trip blank samples MC21383-26 and MC-21383-27 were submitted with the soil samples and sample MC22017-13 was submitted with the groundwater samples. There were no VOCs detected in the trip blanks submitted with the soil and groundwater samples.

6. Data Validation - Soil and groundwater sample laboratory data was required to be validated by a qualified third party data validator in conformance with the SAP. Appendix F contains EnviroAnalytic's Data Usability Summary Reports (DUSR) for each of the laboratory data packages, with individual discussion for each of the analytical groupings (VOCs, SVOCs, PCBs and Metals). The validated laboratory analytical summary reports are also provided in Appendix F. Overall, the DUSRs indicate the reported data to be considered usable; the data validation resulted in the addition of numerous "J" and "UJ" qualifiers to the VOC and SVOC analyses.
7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) – MS/MSD samples were collected at a frequency of one for every twenty samples for each sample matrix during the site investigation. The purpose of these samples is to evaluate the effect of the sample matrix on the analytical results. The results of the MS/MSD analyses can be found in the validated laboratory analytical data summaries in Appendix F.
8. Blind Duplicate - Duplicates and quality control samples provide information on both sampling and analytical variability. Blind duplicate soil and groundwater samples were collected at a frequency of one for every twenty samples from each

matrix to demonstrate the reproducibility of sampling techniques and laboratory analysis.

Laboratory data precision is maintained by strict adherence to sampling procedures and analytical protocols. Precision is measured by monitoring the degree to which duplicate measurements are reproducible. Close agreement between field samples taken in duplicate and laboratory split duplicate samples provide measurements of sampling and laboratory precision. Precision was calculated as:

$$\text{RPD} = \frac{D}{M} \times 100$$

Where: RPD : Relative Percent Difference
D : Difference between 2 measurements
M : Mean of 2 measurements

Precision and accuracy are measurements of reproducibility and the degree to which data approximate true values. These data qualities are controlled by defining acceptance limits for quality control (QC) measurements associated with all reported data. The precision measurements for duplicate soil and groundwater results were compared to an RPD criterion of 20%.

The precision measurements for the duplicate soil boring soil sample collected at SB-2 9-10.8' identified three (3) discrepancies for inorganics above the 20% RPD criteria as shown on Table 4. Barium concentrations showed the greatest variability with the duplicate sample having an RPD of 73%. Two (2) organic discrepancies were observed, however the reported organic concentrations were estimated (detected concentration below method reporting limit).

The precision measurements for the duplicate test pit soil sample collected at TP-7 1-3' identified several (12) discrepancies for organics above the 20% RPD criteria as shown on Table 4. Several (7) inorganic discrepancies were observed, however most of the reported inorganic concentrations were estimated. Lead and mercury concentrations showed the greatest variability with the duplicate sample having an RPD of 109%.

The precision measurements for the duplicate groundwater sample identified only one discrepancy above the 20% RPD criteria. The discrepancy was for chromium (40%).

4.0 Discussion of Findings and Conclusions

4.1 Recognized Environmental Conditions

B&L has performed a Phase II ESA at the property at 41-55 Washington Street in conformance with the scope and limitations of ASTM Practice E1903-11 and for the objectives listed in Section 1.4.5.1 and 1.4.5.2 of this report. The results of this Site Investigation as they relate to the RECs documented in the Phase I ESA Report are discussed in this section. Additional detailed Site Investigation findings and conclusions are presented in Section 4.2.

- Documented Past Storage and Release of Petroleum REC: As stated in Section 1.1 and in the Limited SAP, sampling activities focused on areas where documented petroleum use occurred on the Site. Significant petroleum impacts were not observed during field investigations, but several SVOCs exceeded Part 375 Soil Cleanup Objectives. The SVOCs detected appear to be representative of residual organics in the ash and cinder fill material and not a result of released petroleum fuels. Groundwater did not appear to be impacted by petroleum compounds with the exception of benzene in a groundwater sample collected at the southeast corner of the Site. The position of this groundwater monitoring well is at the upgradient property boundary, and the benzene appears to be migrating onto the 41-55 Washington Street Site. The sampling conducted appears to have evaluated this REC, providing analytical data on soil, fill and groundwater in former petroleum use areas.
- Hard-Fill REC: PCBs and SVOCs were not reported at concentrations exceeding Part 375 SCOs in samples representative of the hard-fill (samples from test pits TP-1 and TP-2). One hard-fill sample contains concentrations of barium, cadmium and copper exceeding Restricted-Residential and/or Commercial Use SCOs. Remaining fill samples collected during this Site Investigation appear to be representative of historic fill from building demolition debris and past industrial processes. Based on the elevated metal concentrations in one hard-fill sample, limited additional characterization of the hard-fill appears warranted pending proposed land use classification and development plans.
- Past Industrial History REC: The Site Investigation was not designed specifically to evaluate the past industrial use REC across the entire Site, but the sampling conducted provides information on soil, fill and groundwater quality in the former footprint of the largest Dunn and McCarthy shoe manufacturing buildings. Based on the elevated SVOC and metal concentrations in fill materials samples, limited additional characterization of the historic fill appears warranted pending proposed land use classification and development plans.

4.2 Site Investigation Summary

The intent of this Phase II Brownfields Site Investigation was to assess subsurface conditions at the Site. Completed Phase II tasks include:

- A boundary and topographic survey was completed in June-July 2013.
- Test pits were excavated in May 2013 to evaluate subsurface conditions on the eastern portion of the Site.
- Drilling activities were completed in June 2013 and included the collection of subsurface soil/fill samples and the installation of three new permanent monitoring wells.
- The new monitoring wells were surveyed, developed and sampled June 2013.
- Soil/fill and groundwater samples were submitted to Accutest Laboratories for the analysis of VOCs, SVOCs, TAL metals, and PCBs.
- Independent third-party data validation was performed on all laboratory samples by EnviroAnalytics of Utica, New York.

Findings of the Site Investigation tasks include the following:

- Validated analytical data indicates that one or more soil/fill samples contain mercury and cadmium exceeding Part 375 Restricted-Residential Use SCOs; barium, lead, and copper at concentrations exceeding Restricted-Residential and Commercial Use SCOs; and arsenic at concentrations exceeding the Restricted-Residential, Commercial and Industrial Use SCOs. One volatile compound (acetone) and several metals were also detected at concentrations exceeding the Part 375 Protection of Groundwater SCO. Seven (7) SVOCs were detected at concentrations exceeding Part 375 SCOs in several samples. Two (2) of these SVOCs (benzo(a)pyrene and/or dibenzo(a,h)anthracene) were detected at concentrations exceeding the Restricted-Residential, Commercial and Industrial Use SCOs. The samples with the SCO exceedences are generally representative of the historic fill material.
- Fill material extends from ground surface to bedrock in many of the borings and test pits advanced. The hard-fill located on the northern portion of the property differs significantly in composition from the historic fill along the Owasco Outlet banks. Hard-fill consists of broken concrete, asphalt, cement block with minor brick, wood and boulders. The historic fill material along the south and north side of the Owasco Outlet was typically crushed cement block and brick with burnt wood, metal pipes, sheet metal and cobbles in a matrix of ash and cinders. Fill material south of the raceway contained ash and cinders with abundant broken rock (angular limestone boulders) and minor brick and metal.
- Three metals (iron, lead, and sodium) were detected in one or more groundwater well samples at concentrations exceeding groundwater standards. Groundwater samples did not contain concentrations of VOCs, SVOCs or PCBs exceeding groundwater standards with the exception of benzene in the monitoring well located at the southeast corner of the Site. This well is located at the upgradient property

boundary and benzene appears to be migrating onto the Site from an unknown source.

- Groundwater was encountered to be in a water table aquifer that may be seasonally perched on the bedrock surface and is influenced by water level fluctuations in the Owasco Outlet and a level-controlled water raceway.
- The Site is currently vacant and undeveloped. Public water is available to businesses and residents surrounding the Site. Groundwater is not utilized onsite. The lack of individual volatile organic compounds at concentrations over SCOs indicates that the only complete exposure pathway to contaminants may be to future onsite personnel in direct contact (absorption and ingestion) with fill material that contains SVOCs and metals exceeding Part 375 SCOs.

4.3 Recommendations

It is recommended to coordinate with the NYSDEC to determine if further investigations of the SVOC and metal impacted soil/fill will be required based on this Site Investigation data and proposed future site use. Installation of a properly designed soil cap should be discussed as an option to minimize public exposure to SVOC and metal-impacted soil/fill in this area.



Tables

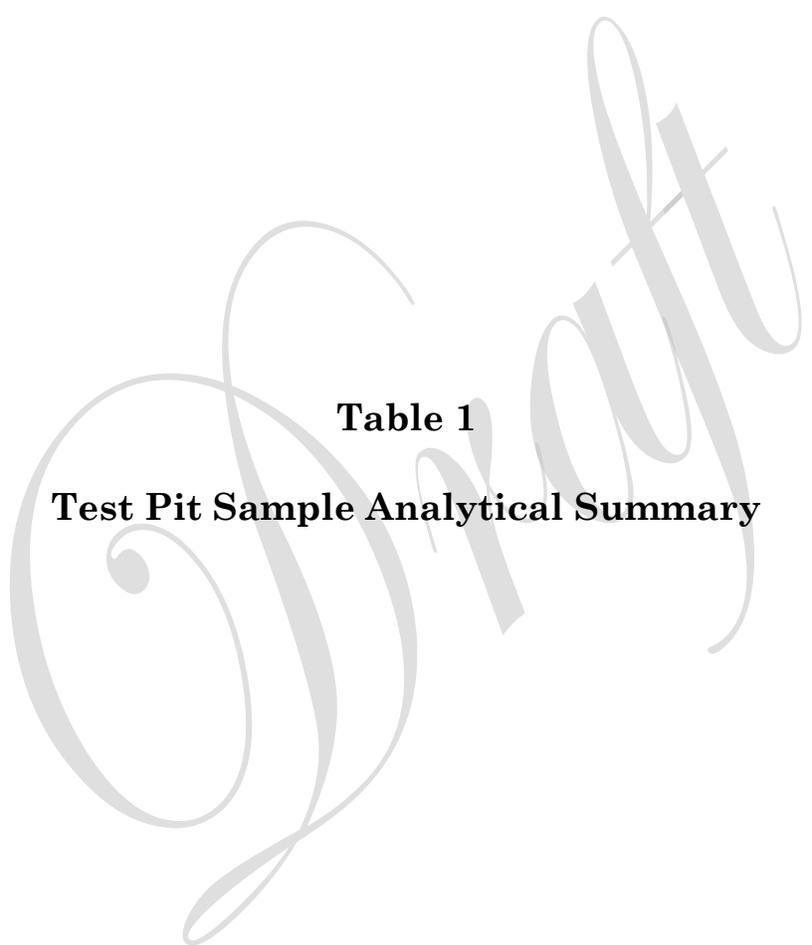


Table 1
Test Pit Sample Analytical Summary

Table 1
41-55 Washington Street - Test Pit Soil Sample Analytical Summary
City of Auburn EPA Brownfield Assessment Grant Program - Phase II Site Investigation
Auburn, New York
B&L Project No. 554.046.001

Client Sample ID:	TP-1 7.0'	TP-2 5-7'	TP-3 2-4'	TP-3 6.5-7.0'	TP-4 2-4'	TP-4 6-6.5'	TP-5 2-4'	TP-6 4-6'	TP-7 1-3'	TP-7 5.5-6.0'	Restricted Residential Use SCO	Commercial Use SCO	Industrial Use SCO	Protection of Groundwater SCO										
Lab Sample ID:	MC21006-1	MC21006-2	MC21006-3	MC21006-4	MC21006-5	MC21006-6	MC21006-7	MC21006-8	MC21006-9	MC21006-11														
Date Sampled:	5/16/2013	5/16/2013	5/16/2013	5/16/2013	5/16/2013	5/16/2013	5/16/2013	5/16/2013	5/16/2013	5/16/2013														
Semi-volatiles (SW846 8270C) Target Compound List (ug/kg)																								
Acenaphthene	ND (110)	ND (120)	ND (120)	ND (110)	112	J	ND (110)	538	ND (120)	ND (100)	ND (130)	100000	500000	1000000	98000									
Acenaphthylene	ND (110)	ND (120)	ND (120)	ND (110)	101	J	ND (110)	ND (120)	82.9	J	39.1	J	ND (130)	100000	500000	1000000	107000							
Anthracene	41.2	J	58.4	J	ND (110)	366	ND (110)	1130	75	J	168	96.2	J	100000	500000	1000000	1000000							
Benzo(a)anthracene	99.7	J	425	J	53.5	J	ND (110)	1280	492	901	424	1000	5600	100000	11000	1000	1000							
Benzo(a)pyrene	73.8	J	257	J	83.4	J	ND (110)	1120	1940	463	729	1000	1000	1000	1100	22000	1700							
Benzo(b)fluoranthene	74.3	J	325	J	63.9	J	ND (110)	968	ND (110)	653	334	1000	5600	100000	11000	1700	1700							
Benzo(g,h,i)perylene	ND (110)	192	93.5	J	ND (110)	749	ND (110)	1020	374	382	190	100000	500000	1000000	1000000	1000000	1000000							
Benzo(k)fluoranthene	64.8	J	337	J	ND (120)	ND (110)	1020	ND (110)	1590	425	584	3900	56000	110000	1700	1700	1700							
Carbazole	ND (110)	51.7	J	ND (120)	ND (110)	161	ND (110)	588	ND (120)	ND (100)	ND (130)	-	-	-	-	-	-							
Chrysene	94	J	465	J	64.8	J	ND (110)	1250	2020	569	774	3900	56000	110000	1000	1000	1000							
Dibenz(a,h)anthracene	ND (110)	66.4	J	ND (120)	ND (110)	241	ND (110)	445	119	J	149	83.2	J	330	560	1100	1000000							
Dibenzofuran	ND (110)	ND (120)	ND (120)	ND (110)	87.3	J	ND (110)	397	ND (120)	ND (100)	ND (130)	59000	350000	1000000	6200	6200	6200							
Di-n-butyl phthalate	ND (270)	ND (300)	ND (300)	ND (280)	ND (300)	ND (290)	61.5	J	ND (300)	ND (260)	ND (320)	-	-	-	-	8100	8100							
bis(2-Ethylhexyl)phthalate	ND (270)	ND (300)	ND (300)	ND (280)	193	J	ND (290)	ND (300)	371	ND (260)	128	J	-	-	-	435000	435000							
Fluoranthene	218	795	71	J	ND (110)	2710	ND (110)	4700	639	1250	685	100000	500000	1000000	1000000	1000000	1000000							
Fluorene	ND (110)	ND (120)	ND (120)	ND (110)	132	ND (110)	597	ND (120)	ND (100)	ND (130)	100000	500000	1000000	1000000	3860000	3860000	3860000							
Indeno(1,2,3-cd)pyrene	37.4	J	176	J	62.1	J	ND (110)	669	ND (110)	1030	304	500	5600	11000	8200	8200	8200							
2-Methylnaphthalene	ND (110)	ND (120)	ND (120)	ND (110)	ND (120)	ND (110)	244	118	J	ND (100)	ND (130)	-	-	-	364000	364000	364000							
Naphthalene	ND (110)	ND (120)	ND (120)	ND (110)	99.7	J	ND (110)	664	116	J	ND (100)	100000	500000	1000000	12000	12000	12000							
Phenanthrene	146	422	48.8	J	ND (110)	1680	ND (110)	3840	349	453	279	100000	500000	1000000	1000000	1000000	1000000							
Pyrene	169	562	72.1	J	ND (110)	2400	ND (110)	3540	655	1050	559	100000	500000	1000000	1000000	1000000	1000000							
PCBs (SW846 8082) (ug/kg)																								
Aroclor 1254	ND (28)	ND (30)	ND (31)	ND (28)	50.4	ND (38)	ND (39)	ND (39)	ND (39)	ND (35)	ND (43)	1000	1000	25000	3200									
Aroclor 1260	ND (28)	ND (30)	ND (31)	ND (28)	16.8 ^a	J	ND (38)	ND (39)	ND (39)	ND (35)	ND (43)	1000	1000	25000	3200									
Metals Analysis (mg/kg)																								
Aluminum	6260	J	4230	J	7840	J	6250	J	5680	J	6380	J	7630	J	3590	J	2980	J	4150	J	-	-	-	-
Antimony	0.99	U	2	J	0.72	J	0.98	U	0.44	J	0.98	U	1	U	1.5	J	1	U	0.91	J	-	-	-	-
Arsenic	2.7	J	7.9	J	6	J	3.2	J	7.7	J	7	J	4.9	J	4.2	J	6.6	J	6.6	J	16	16	16	16
Barium	70.7	J	2010	J	1330	J	40.4	J	694	J	53.9	J	1040	J	349	J	38.6	J	52	J	400	400	10000	820
Beryllium	0.29	B	0.31	B	0.29	B	0.29	B	0.31	B	0.45	B	0.33	B	0.5	B	0.15	B	0.56	B	72	590	2700	47
Cadmium	0.4	U	5.4	J	0.83	J	0.068	B	0.74	J	1.1	J	0.55	J	1.3	J	0.081	B	0.64	J	4.3	9.3	60	7.5
Calcium	75200	J	33800	J	102000	J	43900	J	87000	J	14500	J	122000	J	39800	J	56700	J	53200	J	-	-	-	-
Chromium	9.4	J	17.8	J	15.1	J	15.9	J	20.1	J	9.5	J	20	J	27.4	J	5.7	J	16.7	J	180	1500	6800	NS
Cobalt	6.9	J	10.4	J	6.2	J	6.5	J	6.5	J	6.6	J	8	J	8.4	J	7.2	J	10	J	-	-	-	-
Copper	14.4	J	623	J	138	J	31.1	J	136	J	23	J	53	J	353	J	38.8	J	95.8	J	270	270	10000	1720
Iron	12500	J	59200	J	18900	J	11800	J	19800	J	12800	J	11800	J	15000	J	10300	J	15300	J	-	-	-	-
Lead	5.6	J	184	J	605	J	18.6	J	185	J	16.5	J	534	J	221	J	57.2	J	100	J	400	1000	3900	450
Magnesium	28000	J	5080	J	11400	J	17900	J	10300	J	2680	J	15300	J	6700	J	13900	J	10400	J	-	-	-	-
Manganese	402	J	438	J	328	J	297	J	311	J	457	J	313	J	228	J	484	J	255	J	2000	10000	10000	2000
Mercury	0.026	J	0.35	J	0.023	J	0.29	J	0.68	J	0.052	J	0.041	J	0.58	J	0.15	J	0.72	J	0.81	2.8	5.7	0.73
Nickel	13.1	J	21	J	15.6	J	12.7	J	13.2	J	16.7	J	15.3	J	34.7	J	10.5	J	28.8	J	310	310	10000	130
Potassium	1370	J	832	J	1430	J	1200	J	1070	J	909	J	1780	J	565	J	426	B	425	B	-	-	-	-
Selenium	0.99	U	1	U	0.36	B	0.98	U	1	U	0.7	B	0.48	B	1.1	B	0.49	B	1.5	B	180	1500	6800	4
Silver	0.49	U	0.51	U	0.5	U	0.49	U	0.48	B	0.49	U	0.5	U	0.98	U	0.51	U	0.15	B	180	1500	6800	8.3
Sodium	132	B	382	B	575	B	57.4	B	269	B	36.3	B	424	B	131	B	56.4	B	132	B	-	-	-	-
Thallium	0.99	U	1	U	0.99	U	0.98	U	1	U	0.98	U	1	U	0.99	U	1	U	1	U	-	-	-	-
Vanadium	10.8	J	24.3	J	29.4	J	11.9	J	20.7	J	14.2	J	29	J	12.6	J	6.7	J	10.5	J	-	-	-	-
Zinc	25	J	2390	J	1060	J	37	J	615	J	251	J	559	J	623	J	55.2	J	582	J	10000	10000	10000	2480

Analytical Footnotes:

a = Estimated value due to presence of other Aroclor pattern
 UJ and J = Indicates detection or detection limit below RL and should be considered approximate
 B = Indicates detection greater than method detection limit (MDL) but less than RL
 ND = Not detected above RL (RL in parentheses)
 U = Metal not detected above RL (RL in preceding cell)
 Refer to analytical reports for full lists of compounds analyzed, results and laboratory notations.

Notes:

Commercial Use, Industrial Use, Restricted Residential, and Protection of Groundwater SCOs from 6 NYCRR Part 375.6-8(b)
 Yellow highlighted results exceed Protection of Groundwater SCO
 Green highlighted results exceed Restricted Residential Use SCO
 Orange highlighted results exceed Restricted Residential & Commercial Use SCO
 Red highlighted results exceed Restricted Residential, Commercial & Industrial Use SCO

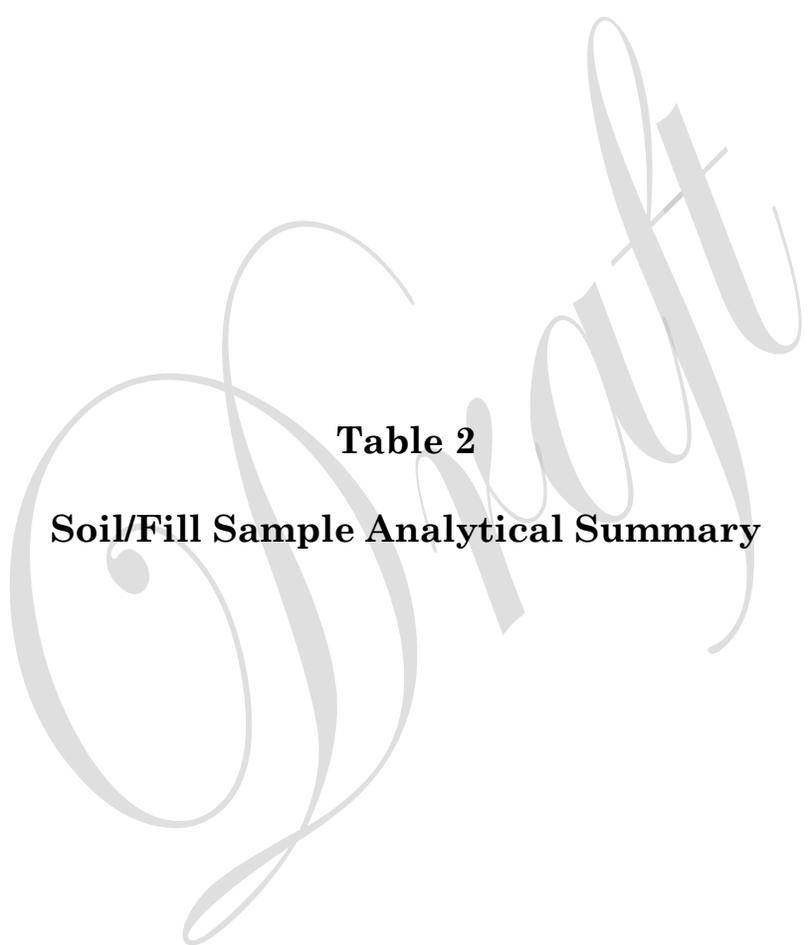


Table 2
Soil/Fill Sample Analytical Summary

Table 2
41-55 Washington Street - Soil Sample Analytical Summary
City of Auburn EPA Brownfield Assessment Grant Program - Phase II Site Investigation
Auburn, New York
B&L Project No. 554.046.001

Client Sample ID:	SB-1 6-7'	SB-2 9-10.8'	SB-3 9-10'	SB-4 7-7.8'	SB-5 10-12'	SB-6 2-4'	SB-6 7-9'	SB-7 8.5-9.5'	SB-7 13-14'	SB-8 13-13.8'	SB-9 12-13.8'	SB-10 11-12'	SB-11 7-8.3'	Restricted Residential Use SCO	Commercial Use SCO	Industrial Use SCO	Protection of Groundwater SCO													
Lab Sample ID:	MC21383-1	MC21383-2	MC21383-3	MC21383-4	MC21383-5	MC21383-6	MC21383-7	MC21383-9	MC21383-10	MC21383-11	MC21383-12	MC21383-14	MC21383-15																	
Date Sampled:	5/28/2013	5/28/2013	5/28/2013	5/28/2013	5/28/2013	5/28/2013	5/28/2013	5/28/2013	5/29/2013	5/29/2013	5/29/2013	5/30/2013	5/30/2013																	
Volatiles (SW846 8260B) Target Compound List (ug/kg)																														
Acetone	ND (10)	UJ	ND (11)	UJ	ND (7.5)	UJ	ND (7.5)	UJ	ND (6.4)	UJ	143	J	ND (7.0)	UJ	ND (25)	UJ	ND (12)	UJ	ND (8.7)	UJ	ND (16)	UJ	ND (10)	UJ	672	J	100000	500000	1000000	50
Benzene	0.5		ND (0.55)	UJ	ND (0.37)	UJ	0.22	J	ND (0.32)	UJ	0.27	J	ND (1.2)	UJ	ND (0.62)	J	1	J	1.8	J	2.8	J	2.3	J	4.800	J	4800	44000	890000	80
Carbon disulfide	ND (5.0)		0.75	J	1	UJ	ND (3.8)	J	0.45	J	0.69	J	ND (3.5)	UJ	1.1	J	0.74	J	ND (7.9)	UJ	0.55	J	1.3	J	-	-	-	-	2700	
Chloromethane	ND (5.0)		ND (5.5)	UJ	ND (3.8)	UJ	ND (3.7)	J	0.93	J	ND (3.5)	UJ	ND (12)	UJ	ND (6.2)	J	ND (4.4)	J	ND (7.9)	UJ	ND (5.1)	J	ND (8.4)	J	-	-	-	-	-	
Ethylbenzene	ND (2.0)		ND (2.2)	UJ	ND (1.5)	UJ	ND (1.5)	UJ	ND (1.3)	UJ	ND (1.4)	UJ	ND (5.0)	UJ	ND (2.5)	UJ	ND (1.7)	UJ	ND (3.2)	UJ	0.38	J	ND (3.4)	J	-	-	41000	390000	780000	1000
Toluene	ND (5.0)		ND (5.5)	UJ	ND (3.7)	UJ	ND (3.8)	UJ	ND (3.2)	UJ	ND (4.3)	UJ	ND (12)	UJ	ND (6.2)	J	0.83	J	ND (7.9)	UJ	2.3	J	ND (8.4)	J	-	-	100000	500000	1000000	700
1,1,1-Trichloroethane	0.51	J	ND (2.2)	UJ	ND (1.5)	UJ	ND (1.5)	UJ	ND (1.3)	UJ	ND (1.7)	UJ	0.28	J	ND (5.0)	UJ	ND (2.5)	UJ	ND (1.7)	UJ	ND (3.2)	UJ	ND (2.0)	J	-	-	100000	500000	1000000	680
Xylene (total)	ND (2.0)		ND (2.2)	UJ	ND (1.5)	UJ	ND (1.5)	UJ	ND (1.3)	UJ	ND (1.7)	UJ	0.28	J	ND (5.0)	UJ	ND (2.5)	UJ	ND (1.7)	UJ	ND (3.2)	UJ	1	J	1.3	J	100000	500000	1000000	1600
Semi-volatiles (SW846 8270C) Target Compound List (ug/kg)																														
Acenaphthylene	ND (120)		ND (100)		ND (110)		ND (120)		ND (110)		ND (100)		ND (110)		ND (240)		ND (160)		ND (130)		46.2	J	ND (120)		79.6	J	100000	500000	1000000	107000
Anthracene	ND (120)		ND (100)		ND (110)		ND (120)		ND (110)		ND (100)		100	J	ND (240)		74.4	J	30.6	J	461		42.1	J	4880		100000	500000	1000000	1000000
Benzo(a)anthracene	42.2	J	36.8	J	ND (110)		ND (120)		ND (100)		562		288		ND (240)		288		153		1180		96.8	J	8030		1000	5600	11000	1000
Benzo(a)pyrene	30.2	J	23.5	J	ND (110)		ND (120)		ND (100)		450		241		ND (240)		241		154		970		83.9	J	5740		1000	1000	1100	22000
Benzo(b)fluoranthene	35	J	28.7	J	ND (110)		ND (120)		ND (100)		358		240		ND (240)		240		121	J	912		72.1	J	4410		1000	5600	11000	1700
Benzo(g,h)perylene	29.7	J	ND (100)		ND (110)		ND (120)		ND (100)		248		162		ND (240)		162		95.4	J	599		46.3	J	2710		100000	500000	1000000	1000000
Benzo(k)fluoranthene	18.1	J	ND (100)		ND (110)		ND (120)		ND (100)		423		166		ND (240)		166		144		729		70	J	5390		3900	56000	110000	1700
Carbazole	ND (120)		ND (100)		ND (110)		ND (120)		ND (100)		ND (100)		ND (100)		ND (110)		ND (120)		ND (110)		ND (120)		21.5	J	2395		-	-	-	-
Chrysene	36.4	J	29.3	J	ND (110)		ND (120)		ND (100)		524		297		ND (240)		297		165		1300		85	J	6690		3900	56000	110000	1000
Dibenz(a,h)anthracene	ND (120)		ND (100)		ND (110)		ND (120)		ND (100)		98.2	J	ND (240)		ND (160)		30.9	J	221		19.1	J	1340		330		560	560	1100	1000000
Dibenzofuran	ND (120)		ND (100)		ND (110)		ND (120)		ND (100)		ND (110)		ND (110)		ND (120)		ND (130)		133		133		ND (120)		2110		59000	350000	1000000	6200
bis(2-Ethylhexyl)phthalate	128	J	61.1	J	ND (270)		ND (290)		20.3	J	ND (260)		152	J	ND (610)		ND (410)		385		161	J	94.1	J	141	J	-	-	-	435000
Fluoranthene	67.7	J	60.6	J	ND (110)		ND (120)		ND (110)		28.4	J	880		ND (240)		528		279		2600		185		18800		100000	500000	1000000	1000000
Fluorene	ND (120)		ND (100)		ND (110)		ND (120)		ND (100)		ND (100)		ND (110)		ND (240)		ND (160)		ND (130)		258		19.5	J	2650		100000	500000	1000000	386000
Indeno(1,2,3-cd)pyrene	20.9	J	ND (100)		ND (110)		ND (120)		ND (100)		228		ND (240)		ND (240)		138		80.5	J	518		43.6	J	2820		500	5600	11000	8200
2-Methylnaphthalene	ND (120)		ND (100)		ND (110)		ND (120)		ND (100)		ND (100)		ND (110)		ND (240)		ND (160)		ND (130)		60.1	J	ND (120)		1360		-	-	-	36400
Naphthalene	ND (120)		69.7	J	ND (110)		ND (120)		ND (100)		ND (100)		ND (110)		ND (160)		71.6	J	ND (160)		105	J	20.5	J	3810		100000	500000	1000000	12000
N-Nitrosodiphenylamine	ND (290)		ND (260)		ND (270)		ND (290)		ND (270)		ND (260)		ND (110)		ND (140)		ND (320)		ND (330)		ND (330)		ND (300)		482	J	-	-	-	-
Phenanthrene	56.4	J	32.2	J	ND (110)		ND (120)		ND (100)		ND (110)		ND (110)		ND (240)		ND (240)		137		2070		157		17300		100000	500000	1000000	1000000
Pyrene	66.3	J	52.4	J	ND (110)		ND (120)		ND (110)		24.4	J	756		ND (240)		506		216		1930		124		12000		100000	500000	1000000	1000000
Detected PCBs by SW846 8082 (ug/kg)																														
Arochlor 1254	53.4		ND (34)		ND (35)		ND (38)		ND (36)		ND (35)		ND (36)		ND (78)		ND (55)		ND (44)		ND (44)		ND (41)		ND (38)		1000	1000	25000	3200
Metals Analysis (mg/kg)																														
Aluminum	9670		3060		2860		3830		3500		2880		4820		5610		4580		4050		19000	J	15000	J	9350	J	-	-	-	-
Antimony	0.98	U	0.98	U	1	U	0.99	U	1	U	0.98	U	0.97	U	38.5	J	4.1	J	0.98	U	0.28	B	1	U	0.99	U	-	-	-	-
Arsenic	5.2		2.7		4.7		5.4		2.7		4.2		5.1		52.7		22.2		6.8		7.7		6.8		7.8		16	16	16	16
Barium	439		43.7		44.5		26.2		50.1		23.9		72.7		2100		428		110		267		115		425		400	400	10000	820
Beryllium	0.47		0.2	B	0.18	B	0.22	B	0.43	B	0.32	B	0.29	B	0.28	B	0.28	B	0.52	B	0.71	B	0.56	B	0.51	B	72	590	2700	47
Cadmium	0.43		0.39	U	0.4	U	0.2	B	0.41	U	0.069	B	0.11	B	1.3		0.52		0.28	B	0.28	B	0.22	B	0.24	B	4.3	9.3	60	7.5
Calcium	132000		151000		213000		127000		128000		2300		29600		22000		27500		114000		85100		73300		122000		-	-	-	-
Chromium	11.6	J	5.9	J	5.6	J	7	J	6	J	5.6	J	33.4	J	23.3	J	32.8	J	17.9	J	37.6		12.8		16.3		180	1500	6800	NS
Cobalt	4.8	B	3.6	B	4.8	B	5.5	B	4.5	B	6	B	4.6	B	17.8		7.7		5.1		7.4		4.8	B	5.1		-	-	-	-
Copper	42.9		7.8		6.4		13		9.1		8.2		23.1		107		121		53.3		121		19.1		31.5		270	270	10000	1720
Iron	9900	J	7790	J	8280	J	10500	J	8090	J	41600	J	12600	J	260000	J	71000	J	15800	J	19300		9950		10100		-	-	-	-
Lead	122		4		10.6		6.1		4.2		5.8		22		2140		211		65.9		232		39.6		60.7		400	1000	3900	450
Magnesium	15800	J	44100	J	35300	J	33000	J	30800	J	1200	J	10000	J	4050	J	8000	J	12000	J	21700		16700		21500		-	-	-	-
Manganese	318	J	285	J	264	J	573	J	267	J	247	J	253	J	1000	J	524	J	363	J	370		235		415		2000	10000	10000	2000
Mercury	0.036		0.034	U	0.034		0.042		0.034		0.057		0.047		0.11		0													

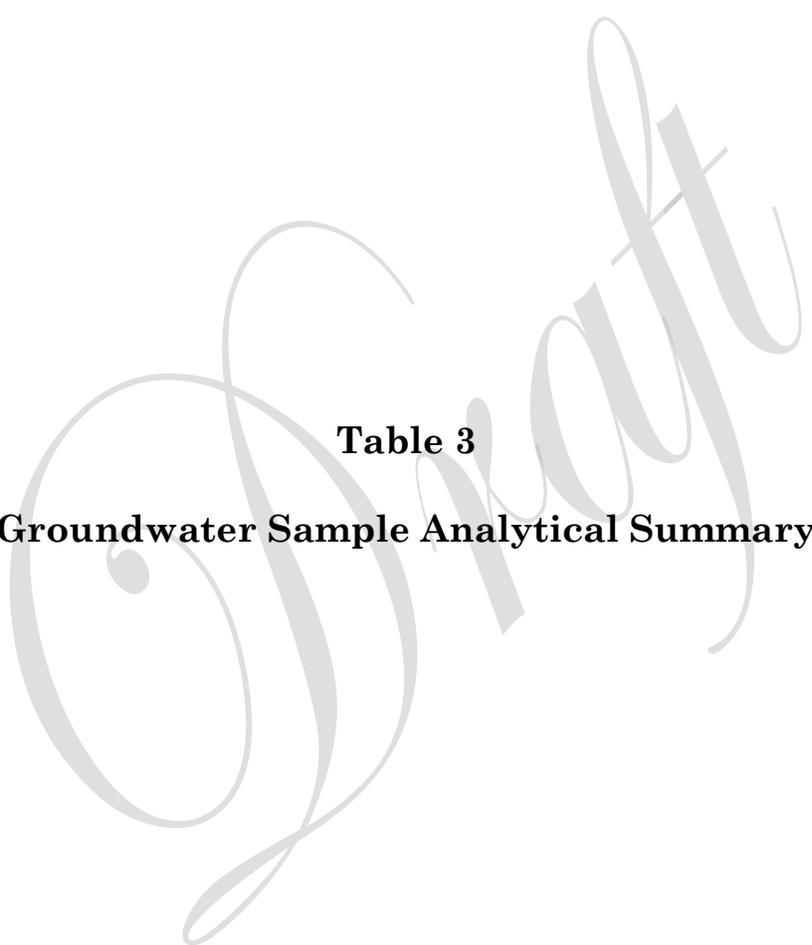


Table 3
Groundwater Sample Analytical Summary

Table 3
41-55 Washington Street - Groundwater Sample Analytical Summary
City of Auburn EPA Brownfield Assessment Grant Program - Phase II Site Investigation
Auburn, New York
B&L Project No. 554.046.001

Client Sample ID:	MW-1	MW-2	MW-3	Groundwater Standard			
Lab Sample ID:	MC22017-1	MC22017-3	MC22017-2				
Date Sampled:	6/19/2013	6/20/2013	6/20/2013				
Detected Volatiles (SW846 8260B) NYSDEC STARS LIST (ug/l)							
Benzene	ND (0.50)	ND (0.50)	9				1
Detected Semi-volatiles (SW846 8270C) NYSDEC STARS List (ug/l)							
None Detected	-	-	-				-
PCBs (SW846 8082) (ug/l)							
None Detected	-	-	-				-
Metals Analysis (ug/l)							
Aluminum	1090	346	1310				-
Antimony	6	2.9	6	U	B	U	3
Arsenic	4	4	4	U	U	U	25
Barium	74.9	107	55.2				1000
Calcium	115000	44700	109000				-
Chromium	2.5	3	4.9	B	B	B	50
Cobalt	1	50	1.9	B	U	B	-
Copper	25	22.2	7.6	U	B	B	200
Iron	888	834	1670				300
Lead	5	61.1	2.7	U		B	25
Magnesium	27100	9680	36700				-
Manganese	51.6	16.8	252				300
Mercury	0.2	0.2	0.073	UJ	UJ	J,B	0.7
Nickel	2	2.1	5.9	B	B	B	100
Potassium	6840	2290	11900		B		-
Sodium	116000	14300	15900				20000
Vanadium	10	10	4	U	U	B	-
Zinc	3.9	109	15.5	B		B	-

Notes:

UJ and J = Indicates detection or detection limit should be considered approximate

B = Indicates detection greater than method detection limit (MDL) but less than RL

ND = Not detected above RL (RL in parentheses)

U = Metal not detected above RL (RL in preceding cell)

ug/l = micrograms per liter

Yellow highlighted results exceed Groundwater Standard

Groundwater Standard = NYSDEC Part 703.5 GW Quality Standards (Class GA Water Body)

and/or Technical Operational Guidance Series (TOGS) 1.1.1. Water Quality Guidance Values

Refer to analytical reports for full lists of compounds analyzed, results and laboratory notations

Table 4
Field Equipment Blank/Duplicate Data Summary

Table 4
41-55 Washington Street - Field Equipment Blank / Duplicate Sample Summary
City of Auburn EPA Brownfield Assessment Grant Program - Phase II Site Investigation
Auburn, New York
B&L Project No. 554.046.001

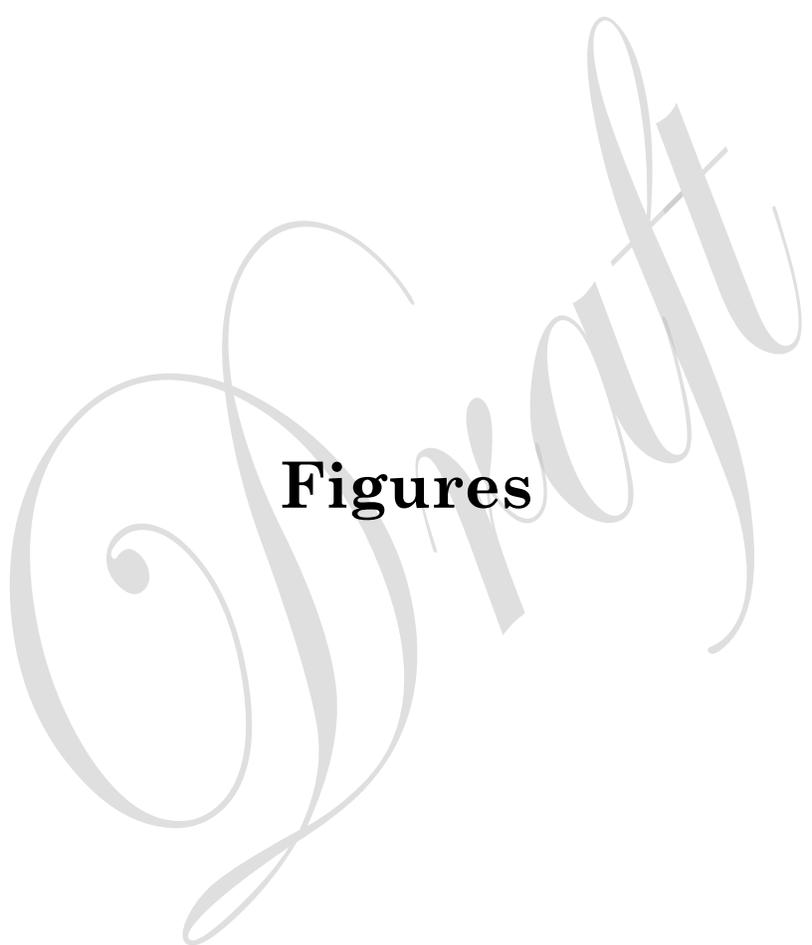
Soil Sampling Duplicate Sample					
Lab Sample ID:	SB-2 9-10.8'		DUP-1		Relative Percent Difference
Date Sampled:	MC21383-2 6/5/2013		MC21383-8 6/5/2013		
GC/MS Volatiles (SW846 8260B) ug/kg					
Carbon Disulfide	0.75	J	1.2	J	46
GC/MS Semi-volatiles (SW846 8270C) ug/kg					
Bis(2-Ethylhexyl)phthalate	61.1	J	ND (260)		NA
Pyrene	52.4	J	50.3	J	-4
Benzo(b)fluoranthene	28.7	J	18.4	J	-44
Fluoranthene	60.6	J	57.7	J	-5
Chrysene	29.3	J	28.2	J	-4
Benzo(a)anthracene	36.9	J	32.9	J	-11
Phenanthrene	32.2	J	36	J	11
Benzo(a)pyrene	23.5	J	ND (100)		NA
Naphthalene	69.7	J	ND (100)		NA
Benzo(k)fluoranthene	NA (100)	U	19.9	J	NA
PCBs (SW846 8082)					
None Detected					
Metals Analysis (mg/kg)					
Aluminum	3060		3200		4
Arsenic	2.7		2.7		0
Barium	43.7		93.5		73
Beryllium	0.2	B	0.2	B	0
Calcium	151000		154000		2
Chromium	5.9	J	5.8	J	-2
Cobalt	3.6	B	4.1	B	13
Copper	7.8		8.7		11
Iron	7790	J	7800	J	0
Lead	4		4		0
Magnesium	44100	J	29200	J	-41
Manganese	285	J	290	J	2
Mercury	NA (0.034)		0.035		NA
Nickel	8	J	8.8	J	10
Potassium	860		868		1
Sodium	146	B	137	B	-6
Vanadium	7.3	J	6.9	J	-6
Zinc	15.8	J	20.1	J	24

Groundwater Sampling Duplicate Sample					
Lab Sample ID:	MW-2		DUPE-X		Relative Percent Difference
Date Sampled:	MC22017-3 6/20/2013		MC22017-4 6/20/2013		
GC/MS Volatiles (SW846 8260B)					
None Detected					
GC/MS Semi-volatiles (SW846 8270C) ug/l					
Fluoranthene	ND (2.2)		0.29	J	NA
Phenanthrene	ND (2.2)		0.27	J	NA
Pyrene	ND (2.2)		0.3	J	NA
PCBs (SW846 8082)					
None Detected					
Metals Analysis (ug/L)					
Aluminum	346		307		-12
Antimony	2.9	B	3.4	B	16
Barium	107		108		1
Calcium	44700		44500		0
Chromium	3	B	2	B	-40
Copper	22.2	B	22	B	-1
Iron	834		787		-6
Lead	61.1		59.9		-2
Magnesium	9680		9760		1
Manganese	16.8		16.6		-1
Nickel	2.1	B	2.1	B	0
Potassium	2290	B	2350	B	3
Sodium	14300		14200		-1
Zinc	109		110		1

Note: Samples MW-2 MC22017-3 and Dupe-X MC22017-4 were collected at another site being sampled under the same project scope of services as 41-55 Washington St.

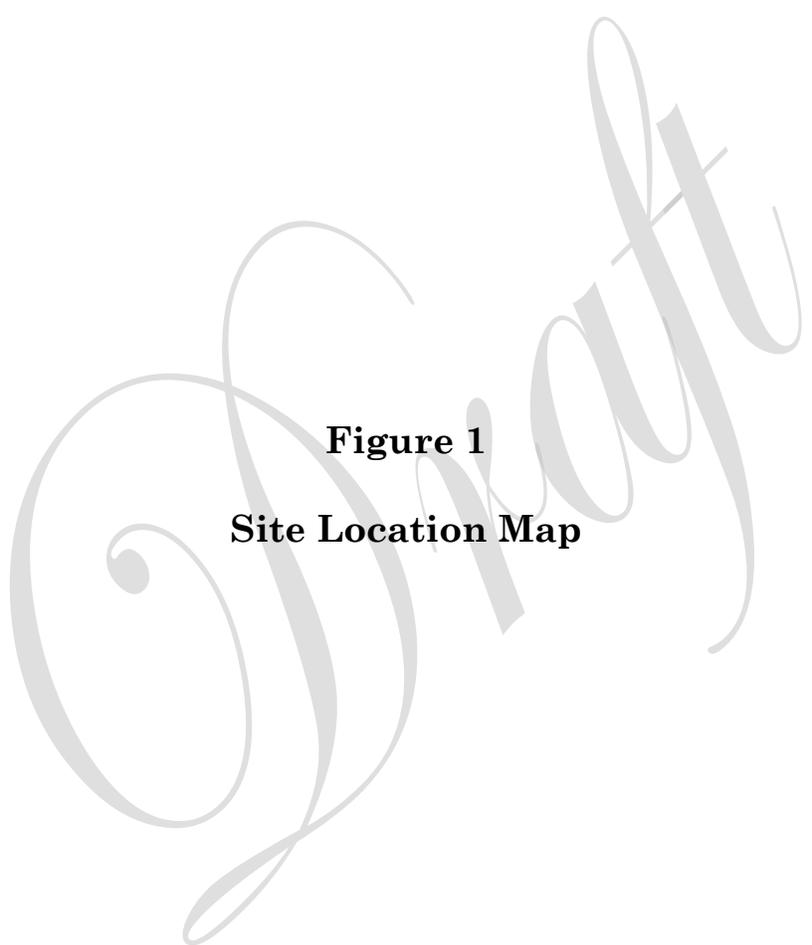
Groundwater Sampling Equipment Blank Sample	
Lab Sample ID:	Field Blank MC22017-6
Date Sampled:	6/20/2013
GC/MS Volatiles (SW846 8260B)	None Detected

Soil Sampling Equipment Blank Sample		
EQUIPMENT BLANK-1		
Lab Sample ID:	MC21383-13	
Date Sampled:	5/30/2013	
GC/MS Volatiles (SW846 8260B)		
None Detected		
GC/MS Semi-Volatiles (SW846 8270) ug/kg		
Bis(2-Ethylhexyl)phthalate	1.2	J
PCBs (SW846 8082)		
None Detected		
Metals Analysis (ug/L)		
Aluminum	48.5	B
Iron	169	
Magnesium	124	B
Manganese	2.8	B
Sodium	495	B
Zinc	0.7	B
Calcium	796	B
Mercury	0.11	B

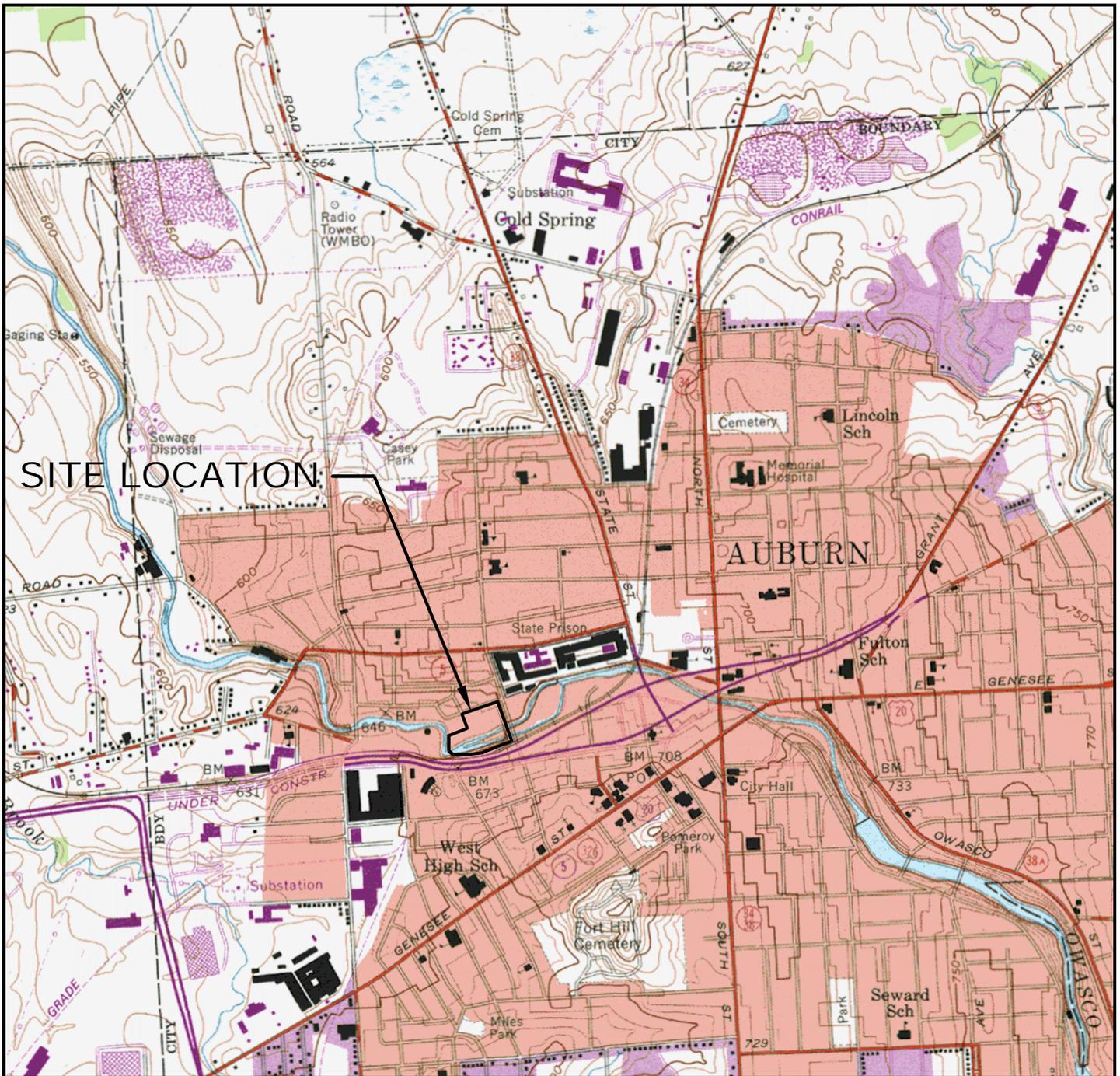


Figures

Figure 1
Site Location Map



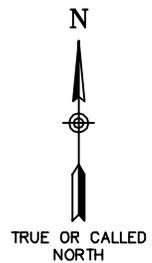
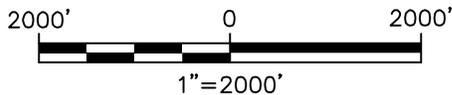
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 SYR By: b.jp



SOURCE: AUBURN, NEW YORK U.S.G.S. QUADRANGLE MAP, DATE 1954, PHOTO REVISED 1978.



QUADRANGLE LOCATION



CITY OF AUBURN
 BROWNFIELD ASSESSMENT
 41-55 WASHINGTON STREET
 SITE LOCATION MAP

Figure Number

1

Project Number

554.046.001

Date
 AUGUST, 2013

Scale
 1"=2000'

CITY OF AUBURN

CAYUGA COUNTY, N.Y.

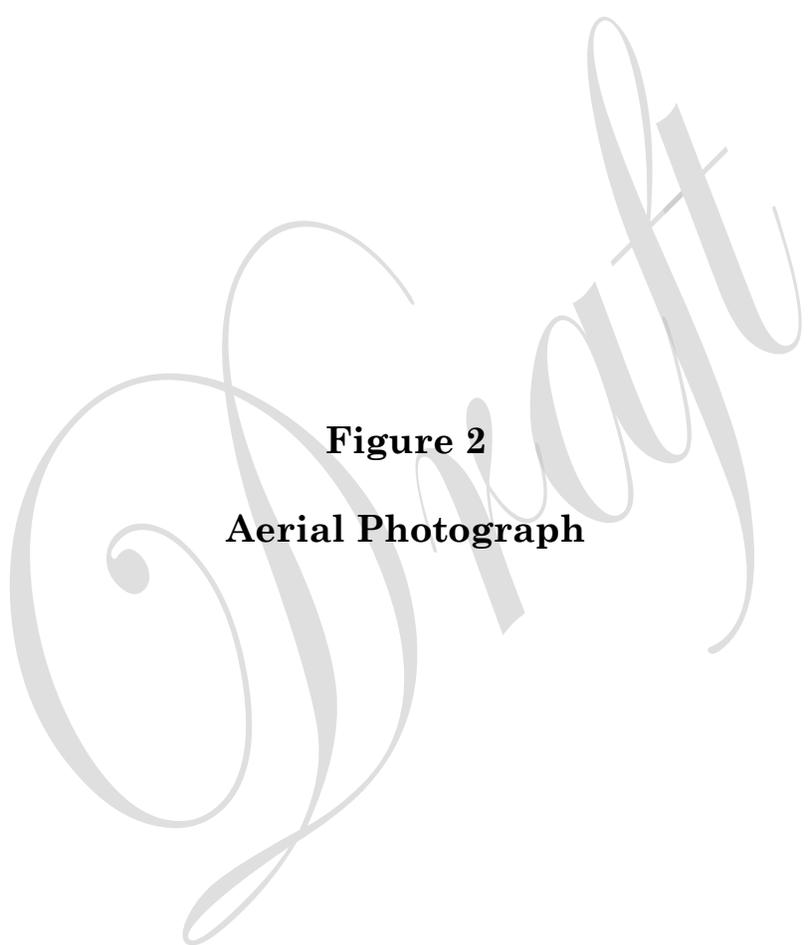


Figure 2
Aerial Photograph

Plotted: Oct 04, 2013 - 7:36AM SYR By: bjp
Z: \\BL-Vault\02\18217AD2-1C71-4823-8927-99D5C4054147\0\432000-432999\432379\1\554046_FIG 2 (ID 432379).dwg



SITE LOCATION

WASHINGTON ST.
WEST 5TH
VENICE ST.

NYS RT. 5 & 20



CITY OF AUBURN
BROWNFIELD ASSESSMENT
41-55 WASHINGTON STREET
AERIAL PHOTOGRAPH
CITY OF AUBURN
CAYUGA COUNTY, NEW YORK



Date
AUGUST, 2013
Scale
1" = 200'
Figure Number
2
Project Number
554.046.001

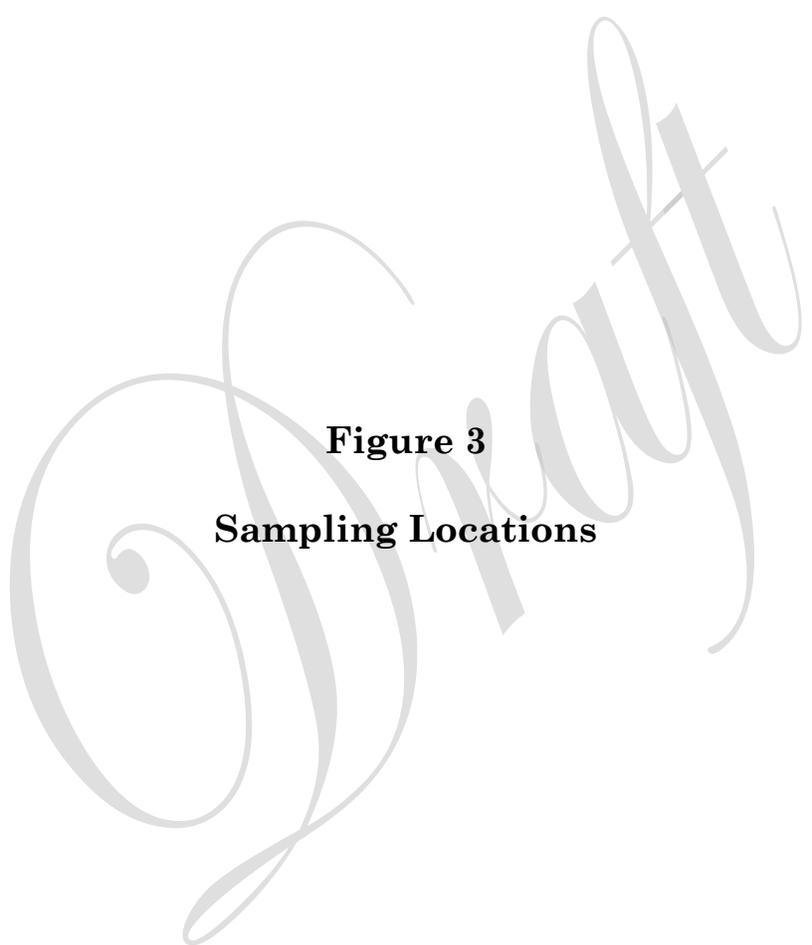
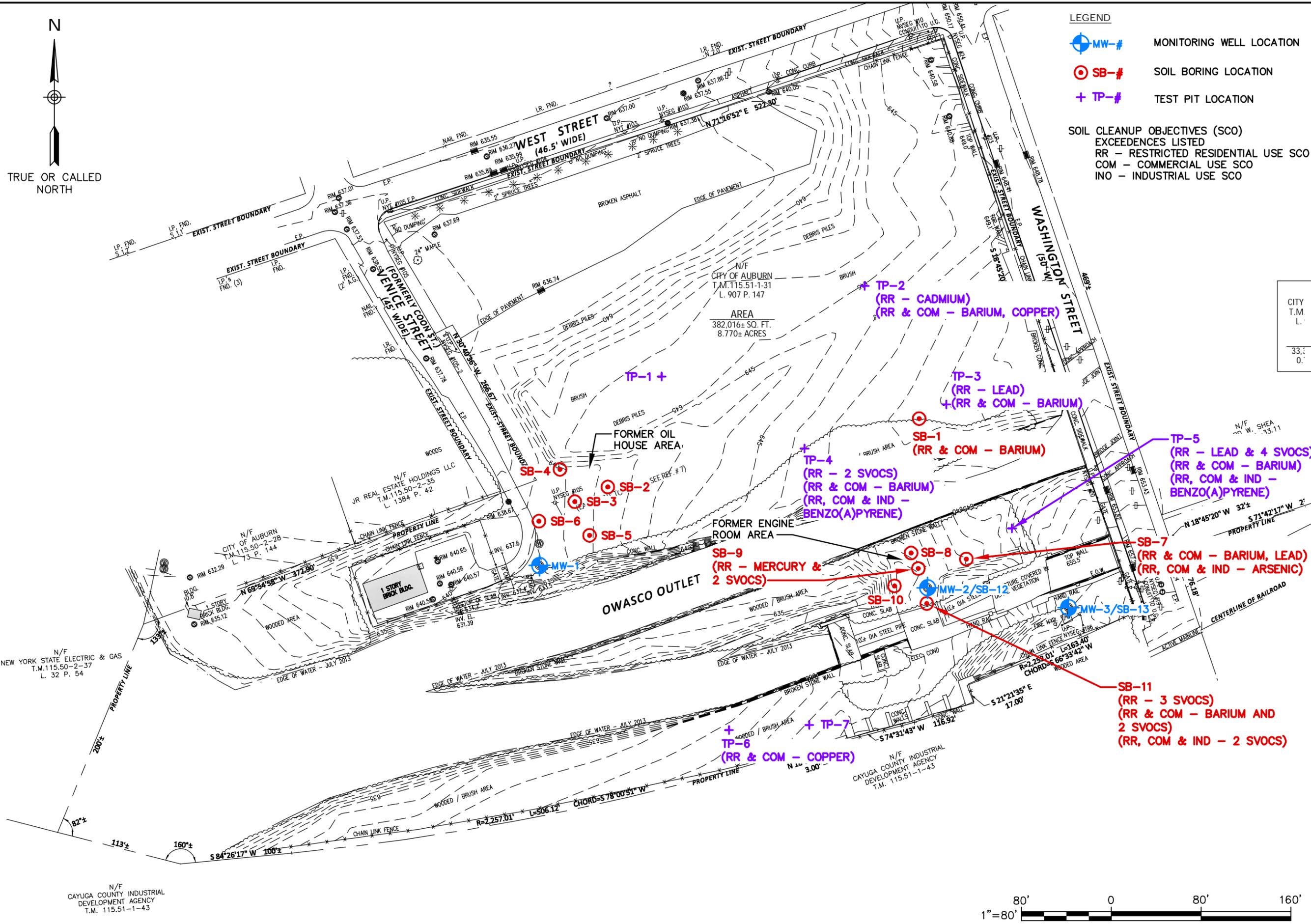
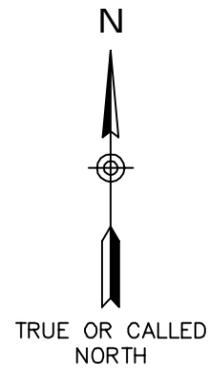


Figure 3
Sampling Locations

Plotted: Oct 11, 2013 - 7:45AM SYR By: bjp
 Z: \\BL-Vault\02\18217AD2-1C71-4823-8927-99D5C4054147\0\432000-432999\432382\L\554046_FIG 3 (ID 432382).dwg



LEGEND

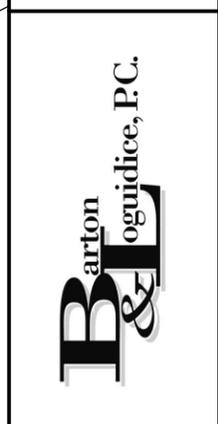
- ⊕ MW-# MONITORING WELL LOCATION
- ⊙ SB-# SOIL BORING LOCATION
- + TP-# TEST PIT LOCATION

SOIL CLEANUP OBJECTIVES (SCO) EXCEEDENCES LISTED

- RR - RESTRICTED RESIDENTIAL USE SCO
- COM - COMMERCIAL USE SCO
- IND - INDUSTRIAL USE SCO

CITY T.M. L.
 33.0'

CITY OF AUBURN
 BROWNFIELD ASSESSMENT
 41-55 WASHINGTON STREET
 SAMPLING LOCATION MAP
 CAYUGA COUNTY, NEW YORK



Date
 AUGUST, 2013

Scale
 1" = 80'

Figure Number
 3

Project Number
 554.046.001



N/F
 CAYUGA COUNTY INDUSTRIAL
 DEVELOPMENT AGENCY
 T.M. 115.51-1-43

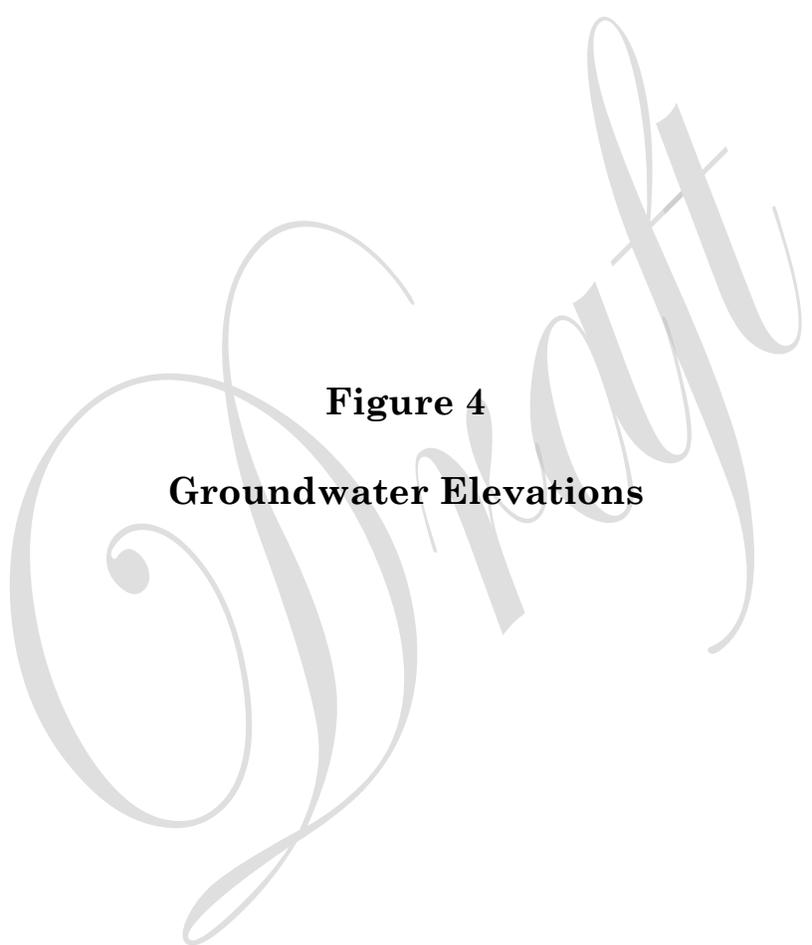
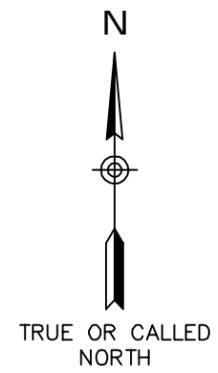
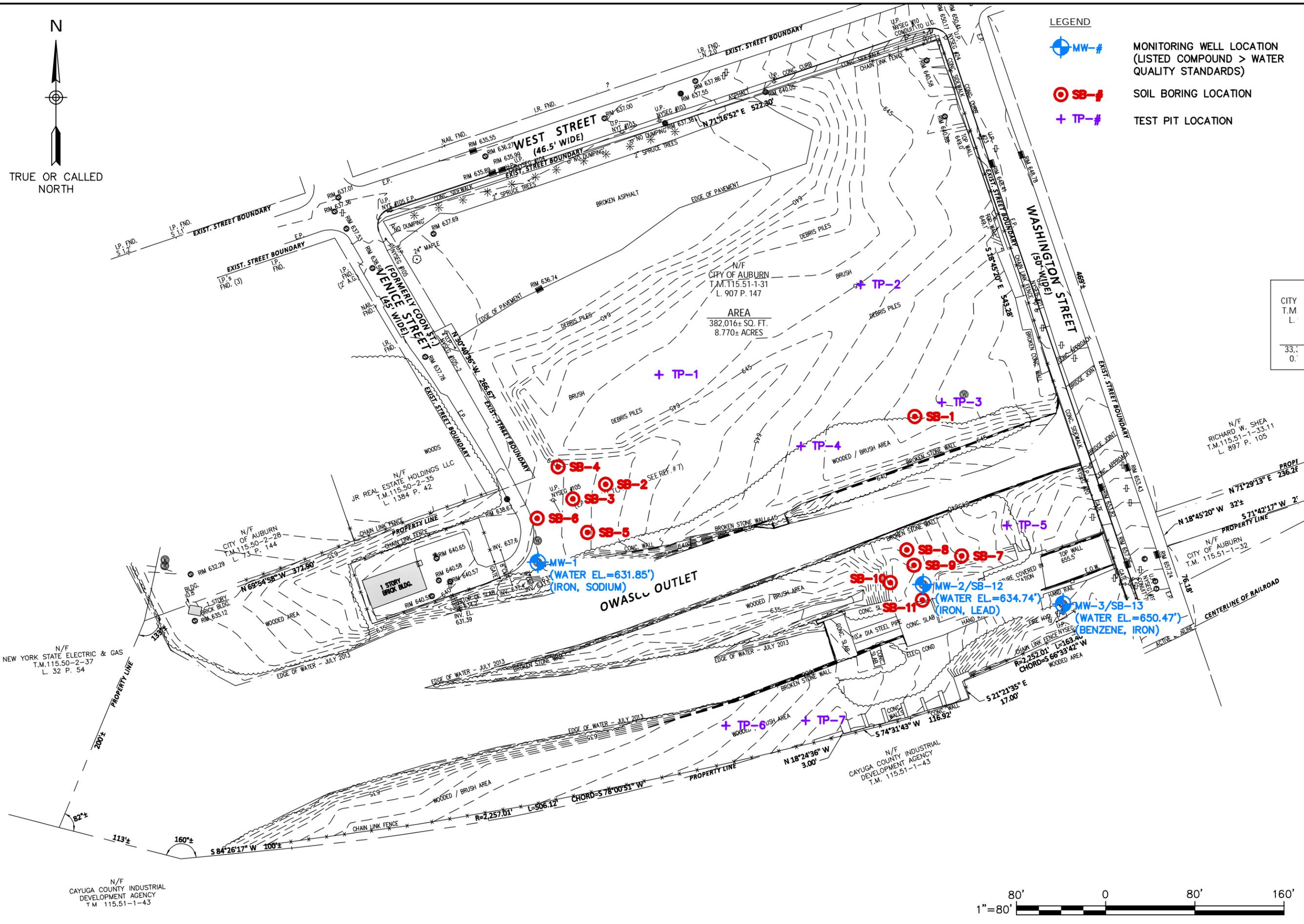


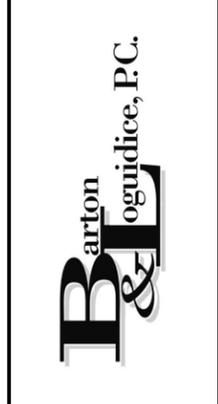
Figure 4
Groundwater Elevations

Plotted: Oct 04, 2013 - 7:40AM SYR By: bjp
 Z: \\BL-Vault\02\18217AD2-1C71-4823-8927-99D5C4054147\0\432000-432999\432469\432469_L\554046_FIG 4 (ID 432469).dwg



CITY T.M. L.
33.0'

CITY OF AUBURN
 BROWNFIELD ASSESSMENT
 41-55 WASHINGTON STREET
 GROUNDWATER ELEVATIONS - JUNE 2013
 CAYUGA COUNTY, NEW YORK



Date
AUGUST, 2013

Scale
1" = 80'

Figure Number
4

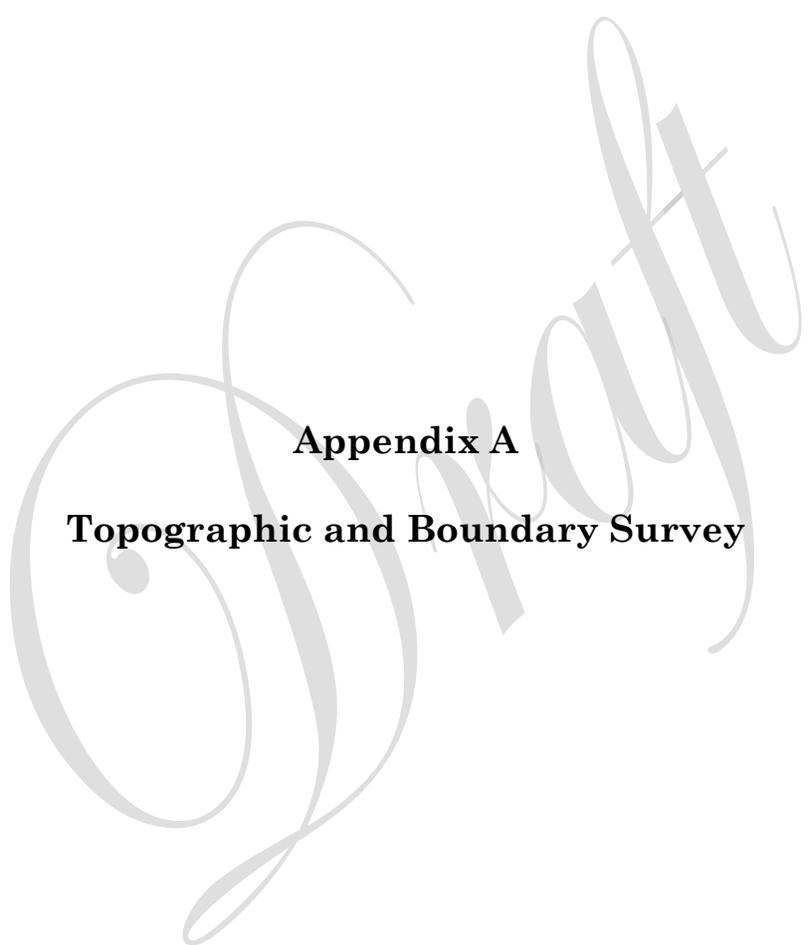
Project Number
554.046.001



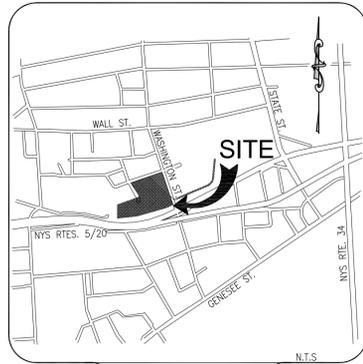
N/F
 CAYUGA COUNTY INDUSTRIAL
 DEVELOPMENT AGENCY
 T.M. 115.51-1-43



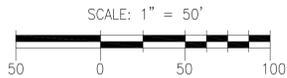
Appendices



Appendix A
Topographic and Boundary Survey



VICINITY MAP



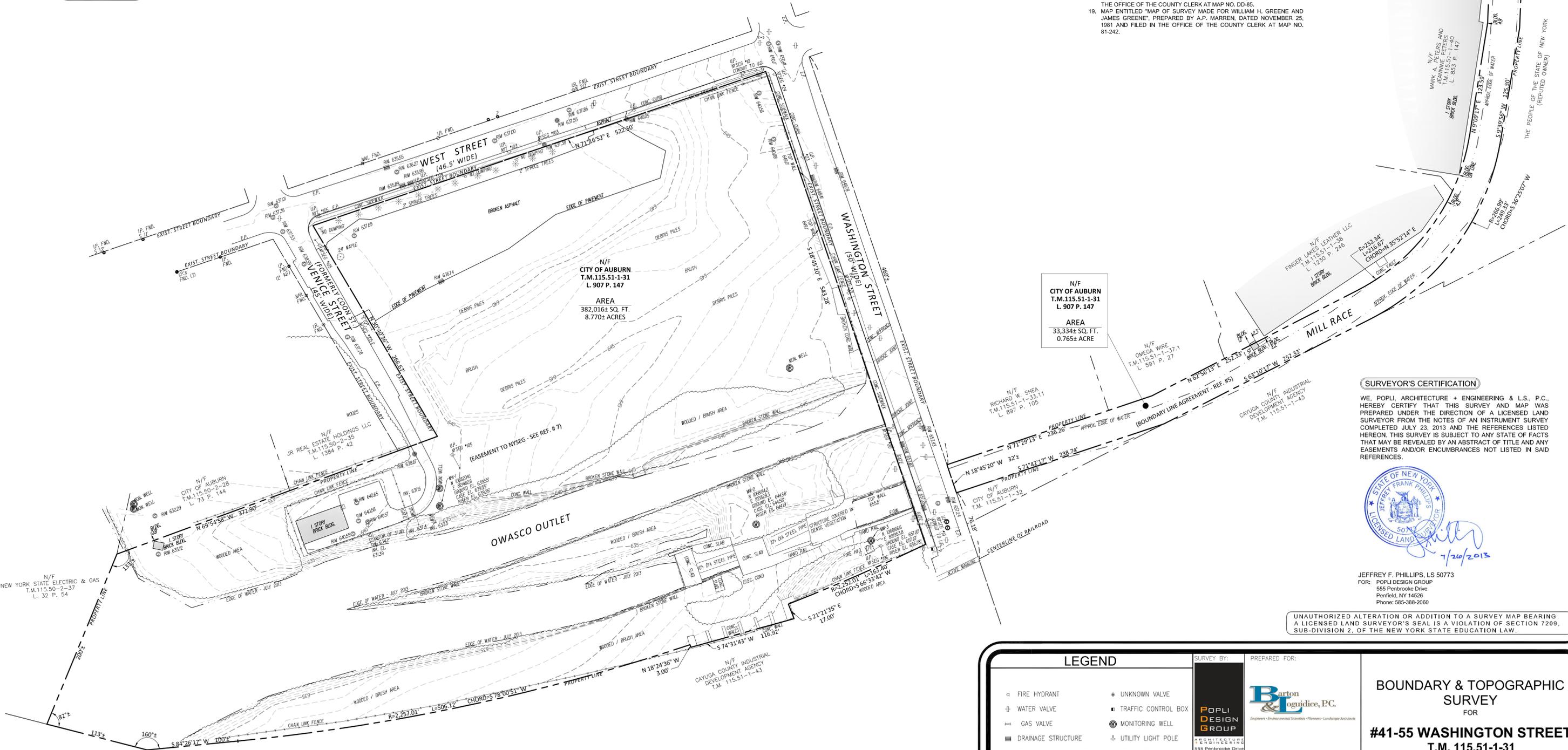
SURVEY NOTES

1. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF AN ABSTRACT OF TITLE AND IS SUBJECT TO ANY STATE OF FACTS THAT MAY BE REVEALED BY AN EXAMINATION OF SUCH.
2. COORDINATES ARE REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (CORS) - NEW YORK STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE.
3. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
4. MAPPING UNITS ARE U.S. SURVEY FEET.
5. CONTOURS ARE DISPLAYED AT A ONE (1) FOOT INTERVAL.

BOUNDARY REFERENCES

1. DEED, FILED IN LIBER 907, PAGE 147.
2. DEED, FILED IN LIBER 900, PAGE 327.
3. DEED, FILED IN LIBER 832, PAGE 5.
4. DEED, FILED IN LIBER 364, PAGE 294.
5. BOUNDARY LINE AGREEMENT, FILED IN LIBER 40, PAGE 390.
6. DEED, FILED IN LIBER 26, PAGE 469.
7. EASEMENT TO NEW YORK STATE ELECTRIC AND GAS TO MAINTAIN AND OPERATE POLES, WIRES AND ALL APPURTENANCES USED FOR THE TRANSMISSION OF ELECTRIC CURRENT AND TELEPHONE COMMUNICATIONS, FILED IN LIBER 269, PAGE 594.
8. DEED, FILED IN LIBER 32, PAGE 524.
9. DEED, FILED IN LIBER 32, PAGE 245.
10. DEED, FILED IN LIBER 73, PAGE 144.
11. DEED, FILED IN LIBER 1384, PAGE 42.
12. DEED, FILED IN LIBER 853, PAGE 147.
13. DEED, FILED IN LIBER 1230, PAGE 246.
14. DEED, FILED IN LIBER 32, PAGE 54.
15. DEED, FILED IN LIBER 897, PAGE 105.
16. DEED, FILED IN LIBER 591, PAGE 27.
17. MAP ENTITLED "TRACK MAP", NEW YORK CENTRAL RAILROAD, OPERATED BY THE NEW YORK CENTRAL RAILROAD COMPANY, AUBURN BRANCH - ROCHESTER DIVISION [FROM STATION 132+666.03 TO STATION 137+949.47], DATED JUNE 30TH, 1917, IDENTIFIED BY CASE NO. 71072, SHEET 24 OF 122.
18. MAP ENTITLED "SURVEY MAP OF PROPERTY OF COLUMBIA RECORDING CORP.", PREPARED BY J.J. TEHAN, DATED JULY 30, 1940 AND FILED IN THE OFFICE OF THE COUNTY CLERK AT MAP NO. DD-85.
19. MAP ENTITLED "MAP OF SURVEY MADE FOR WILLIAM H. GREENE AND JAMES GREENE", PREPARED BY A.P. MARREN, DATED NOVEMBER 25, 1981 AND FILED IN THE OFFICE OF THE COUNTY CLERK AT MAP NO. 81-242.

THE PEOPLE OF THE STATE OF NEW YORK
(REPUTED OWNER)
OWASCO OUTLET



N/F
CITY OF AUBURN
T.M. 115.51-1-31
L. 907 P. 147

AREA
382,016± SQ. FT.
8.770± ACRES

N/F
CITY OF AUBURN
T.M. 115.51-1-31
L. 907 P. 147

AREA
33,334± SQ. FT.
0.765± ACRE

SURVEYOR'S CERTIFICATION

WE, POPLI ARCHITECTURE + ENGINEERING & L.S., P.C., HEREBY CERTIFY THAT THIS SURVEY AND MAP WAS PREPARED UNDER THE DIRECTION OF A LICENSED LAND SURVEYOR FROM THE NOTES OF AN INSTRUMENT SURVEY COMPLETED JULY 23, 2013 AND THE REFERENCES LISTED HEREON. THIS SURVEY IS SUBJECT TO ANY STATE OF FACTS THAT MAY BE REVEALED BY AN ABSTRACT OF TITLE AND ANY EASEMENTS AND/OR ENCUMBRANCES NOT LISTED IN SAID REFERENCES.



JEFFREY F. PHILLIPS, LS 50773
FOR: POPLI DESIGN GROUP
555 Penbrooke Drive
Penfield, NY 14526
Phone: 565-366-2060

UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S SEAL IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW.

LEGEND

- ⊕ FIRE HYDRANT
- ⊕ WATER VALVE
- ⊕ GAS VALVE
- ≡ DRAINAGE STRUCTURE
- STORM DRAIN MANHOLE
- ⊙ SANITARY SEWER MANHOLE
- ⊙ ELECTRIC MANHOLE
- FIRE HYDRANT
- ⊕ UNKNOWN VALVE
- TRAFFIC CONTROL BOX
- ⊕ MONITORING WELL
- ⊕ UTILITY LIGHT POLE
- ⊕ UTILITY POLE

SURVEY BY: **POPLI DESIGN GROUP**
PREPARED FOR: **Barton & Loguidice, P.C.**
Engineers • Environmental Scientists • Planners • Landscape Architects

SURVEYOR JOB NUMBER:	SU4007.10
SURVEY CREW:	W. STRATTON N. DUNN
DRAWN BY:	W. STRATTON
CHECKED BY:	J. PHILLIPS

REVISIONS	

BOUNDARY & TOPOGRAPHIC SURVEY
FOR
#41-55 WASHINGTON STREET
T.M. 115.51-1-31

Being part of Lot 46 in the original Township of Aurelius
City of Auburn, County of Cayuga, State of New York

SCALE: 1" = 50' DATE: JULY 26, 2013

N/F
CAYUGA COUNTY INDUSTRIAL DEVELOPMENT AGENCY
T.M. 115.51-1-43

N/F
CITY OF AUBURN
T.M. 115.50-2-28
L. 73 P. 144

N/F
CITY OF AUBURN
T.M. 115.50-2-35
L. 1384 P. 42

N/F
CITY OF AUBURN
T.M. 115.50-2-37
L. 32 P. 54

N/F
CAYUGA COUNTY INDUSTRIAL DEVELOPMENT AGENCY
T.M. 115.51-1-43



Appendix B
Test Pit Logs



Engineers • Environmental Scientists • Planners • Landscape Architects

TEST PIT LOG TP- 2 Washington St

PROJECT: Auburn EPA Brownfield Phase II - 554.046.001	CONTRACTOR: Trec Environmental
CLIENT: City of Auburn	OPERATOR: Jim Agar
INSPECTOR: Greg V. Lesniak	EQUIPMENT: Kubota Super Series KX121-3
DATE: 5/16/2013	Mini-Excavator
LOCATION: 41-55 Washington St	
Main Portion of Site - East Pit in Hard Fill Area	

Depth	Sample Depth	PID (ppmv)	Classification	Remarks
0 - 4'	0-2'	0.0	Fill Material: Brown broken concrete fill with gravel, clay, boulders (angular) and minor wood (posts, limbs), brick and asphalt, moist	
	2-4'	0.0		
4 - 8.3'	4-6'	0.0	Fill Material: Grey Silty Clay with broken concrete, boulders (angular) and minor wood (limbs), brick and asphalt, moist	
	TP-2 5-7'			
	6-8'	0.0		
8.3'			Concrete slab	Flat-lying slab, not rippable
			End of Test Pit @ 8.3' due to refusal on concrete slab	
			Shading denotes sample interval/identification	



Engineers • Environmental Scientists • Planners • Landscape Architects

TEST PIT LOG TP- 3 Washington St

PROJECT: Auburn EPA Brownfield Phase II - 554.046.001	CONTRACTOR: Trec Environmental
CLIENT: City of Auburn	OPERATOR: Jim Agar
INSPECTOR: Greg V. Lesniak	EQUIPMENT: Kubota Super Series KX121-3
DATE: 5/16/2013	Mini-Excavator
LOCATION: 41-55 Washington St	
Main Portion of Site - Southeast Corner near Mon Well	

Depth	Sample Depth	PID (ppmv)	Classification	Remarks
0 - 1.2'		0.0	Topsoil: Topsoil, moist	
1.2 - 4.5'	TP-3 2-4'	0.0	Fill Material: Dk grey cement block and brick with ash and sand, dry	
	2-4'	0.0		
4.5 - 6.5'	4-6'	0.0	Fill Material: Black, white and orange ash, chard wood, brick, and cement blocks, dry	
6.5 - 7.0'	TP-3 6.5-7.0'	0.0	Soil: Dk brown Silty CLAY, minor cobbles (angular limestone), moist	
7.0'			Bedrock: Grey limestone	Flat-lying, not rippable
			End of Test Pit @ 7.0' due to refusal on bedrock	
			Shading denotes sample interval/identification	



Engineers • Environmental Scientists • Planners • Landscape Architects

TEST PIT LOG TP- 4 Washington St

PROJECT: Auburn EPA Brownfield Phase II - 554.046.001	CONTRACTOR: Trec Environmental
CLIENT: City of Auburn	OPERATOR: Jim Agar
INSPECTOR: Greg V. Lesniak	EQUIPMENT: Kubota Super Series KX121-3
DATE: 5/16/2013	Mini-Excavator
LOCATION: 41-55 Washington St	
Main Portion of Site - Southcentral	

Depth	Sample Depth	PID (ppmv)	Classification	Remarks
0 - 0.5'			Topsoil: Topsoil, moist	
0.5 - 5.5'	1-2	0.0	Fill Material: Dk grey cement block and brick with ash, cinders, sand and metal pipe and sheet metal, dry, increasing sand with depth	
	TP-4 2-4'	0.0		
5.5 - 6.5'	2-4	0.0	Soil: Dk brown Silty CLAY, minor cobbles (angular limestone), roots, moist	
	TP-4 6.0 - 6.5'	0.0		
6.5'			Bedrock: Grey limestone	Flat-lying, not rippable
End of Test Pit @ 6.5' due to refusal on bedrock				
			Shading denotes sample interval/identification	



Engineers • Environmental Scientists • Planners • Landscape Architects

TEST PIT LOG TP- 6 Washington St

PROJECT: Auburn EPA Brownfield Phase II - 554.046.001	CONTRACTOR: Trec Environmental
CLIENT: City of Auburn	OPERATOR: Jim Agar
INSPECTOR: Greg V. Lesniak	EQUIPMENT: Kubota Super Series KX121-3
DATE: 5/16/2013	Mini-Excavator
LOCATION: 41-55 Washington St	
West Pit Between Raceway and RR Grade	

Depth	Sample Depth	PID (ppmv)	Classification	Remarks
0 - 0.3'			Topsoil: Topsoil, and roots, dry	
0.3 - 3.5'	1-2	0.0	Fill Material: Grey broken limestone (angular) with gravel, moist to wet, several large limestone boulders	
	2-4	0.0		
3.5 - 6.5'	TP-6 4-6'	0.0	Fill Material: Gray/white Ash and cinders, moist	
6.5 - 6.8'		0.0	Fill Material: Brown/orange ash and brick, moist to wet	
6.8 - 8.1'		0.0	Soil: Brown Silty Clay, wet	
8.1'			Bedrock: Grey limestone, uneven surface, mottled fracture surfaces.	Rippable, but beyond limits of excavator
			End of Test Pit @ 8.1' due to refusal in fractured bedrock	
			Shading denotes sample interval/identification	

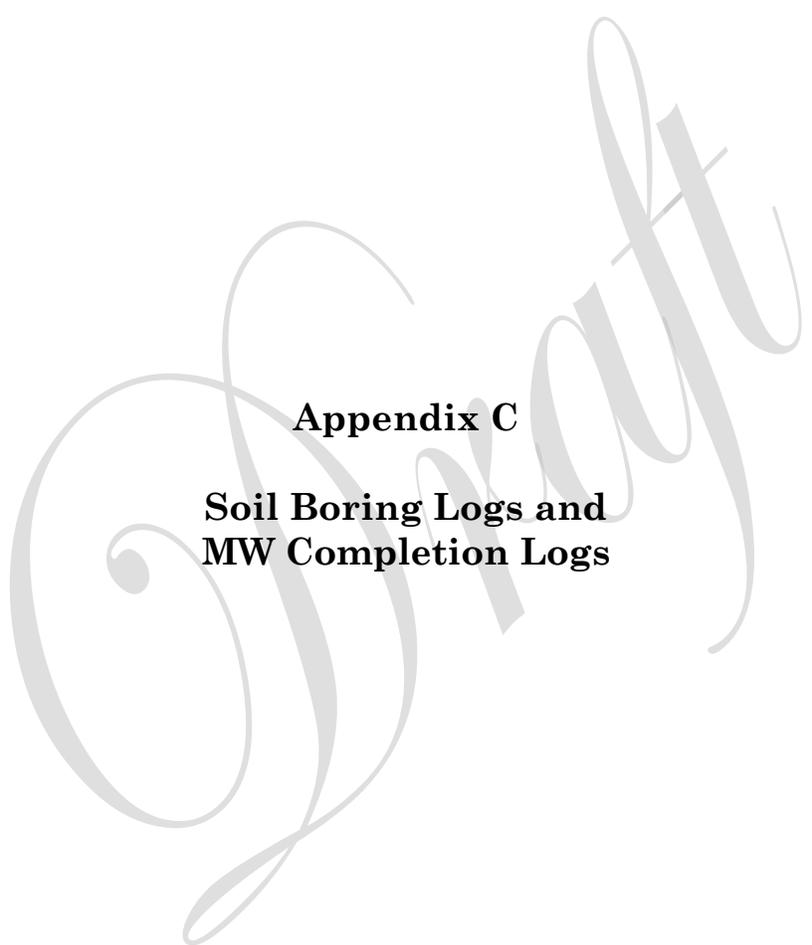


Engineers • Environmental Scientists • Planners • Landscape Architects

TEST PIT LOG TP- 7 Washington St

PROJECT: Auburn EPA Brownfield Phase II - 554.046.001	CONTRACTOR: Trec Environmental
CLIENT: City of Auburn	OPERATOR: Jim Agar
INSPECTOR: Greg V. Lesniak	EQUIPMENT: Kubota Super Series KX121-3
DATE: 5/16/2013	Mini-Excavator
LOCATION: 41-55 Washington St	
East Pit Between Raceway and RR Grade	

Depth	Sample Depth	PID (ppmv)	Classification	Remarks
0 - 0.5'			Topsoil: Topsoil, and roots, dry	
0.5 - 1.5'	1-2	3.0	Fill Material: Brown/white ash and sand, dry	
1.5 - 4.8'	TP-7 1-3'	0.0	Fill Material: Grey/orange/white brick, broken rock (angular limestone boulders) and ash, moist	
	2-4			
4.8 - 8'		0.0	Fill Material: Grey broken rock (angular limestone boulders with mottled surfaces) with ash, moist, wet at 5.5-8.0'	
	TP-7 5.5-6.0'			
8.0'			Weathered Bedrock: Grey limestone, fractured, mottled fracture surfaces	Rippable, but beyond limits of excavator
			End of Test Pit @ 8.0' due to refusal in fractured bedrock	
			Shading denotes sample interval/identification	



Appendix C

**Soil Boring Logs and
MW Completion Logs**

Appendix D

**Well Development Logs
Groundwater Sampling Field Data
Low Flow Sampling Logs**

WELL DEVELOPMENT LOG

Project: City of Auburn EPA 41-55 Washington St

Job Number: 554.046.001

Monitoring location: MW-2

Development method(s): Submersible Pump

Date of activity: 6/12/2013

Well information:	Static Water Level (ft)	Total Depth (ft)	Depth to top of screen (ft)	Screen length (ft)	Well Diameter (in)	Casing Stickup (ft)	PID (ppmv)
	8.70	10.70	5.7	5	2	-0.39	0.0
MP/Notes:							

Date	Time	Turbidity (NTU)	Temp. (°C/°F)	Sp. Cond. (µS/cm)	ORP (mV)	pH	Quantity Purged (gal, cumulative)	Visual/Olfactory Notes	
6-12	11:15	start							
	11:16	overrange	17.4	381	-	7.82	0.4	Brown - lots of sand	
	11:18	stop - clear pump - set pump deeper bottom of well						0.8	
	11:19	restart							
	11:20	3690	16.7	388	-	7.82	1.2	brown - less sand	
	11:23	1156	16.5	390	-	7.80	2.0		
	11:25	40	16.6	383	-	7.80	2.5		
	11:27	36	16.5	380	-	7.81	3.0	fannish	
	end 11:27								

Notes: _____

Total Volume Purged: 3.0 gal

Samplers: Greg V. Lesniak

WELL DEVELOPMENT LOG

Project: City of Auburn EPA

41-55 Washington St

Job Number: 554.046.001

Monitoring location: MW-3

Development method(s): Submersible Pump

Date of activity: 6/12/2013

Well information:	Static Water Level (ft)	Total Depth (ft)	Depth to top of screen (ft)	Screen length (ft)	Well Diameter (in)	Casing Stickup (ft)	PID (ppmv)
	<u>3.73</u>	<u>9.70</u>	<u>4.70</u>	<u>5</u>	<u>2</u>	<u>-0.32</u>	<u>0.0</u>
MP/Notes:							

Date	Time	Turbidity (NTU)	Temp. (°C/°F)	Sp. Cond. (µS/cm)	ORP (mV)	pH	Quantity Purged (gal, cumulative)	Visual/Olfactory Notes
<u>6-12</u>	<u>11:45</u>							
	<u>11:46</u>	<u>62</u>	<u>15.8</u>	<u>772</u>	<u>-</u>	<u>6.88</u>	<u>0.8</u>	<u>1+ grey water rancid odor</u>
	<u>11:48</u>	<u>55 dewatered</u>	<u>13.7</u>	<u>817</u>	<u>-</u>	<u>6.85</u>	<u>2.2</u>	
	<u>11:50</u>	<u>restart</u>						
	<u>11:51</u>	<u>81.9</u>	<u>12.0</u>	<u>906</u>	<u>-</u>	<u>6.91</u>		
	<u>11:51.3</u>	<u>dewatered</u>					<u>3.0</u>	
	<u>11:52</u>	<u>restart</u>						
	<u>11:53</u>	<u>138 dewatered-pulsing</u>	<u>11.6</u>	<u>907</u>	<u>-</u>	<u>6.94</u>		
	<u>11:54</u>	<u>112</u>	<u>11.6</u>	<u>909</u>	<u>=</u>	<u>6.99</u>		<u>rancid/charcoal odor 1+ tan shade</u>
	<u>11:55</u>	<u>end-dewatered</u>					<u>3.8 gal</u>	

Notes: _____

Total Volume Purged: 3.8 gal

Samplers: _____

Greg V. Lermick

LOW FLOW GROUNDWATER SAMPLING LOG

Project: 41-55 Washington Street Auburn NY

Monitoring location: MW-1 Sampling device(s): Bladder Pump

Date of sampling: 6-19-2013 Tubing diameter: 1/4" OD

Well information:	Static Water Level	Total Depth	Depth to top of screen (ft)	Screen length (ft)	Well Diameter (in)	Pump placement depth (ft)
	7.41	14.25	4.25	10	2	9.25
MP/Notes:						

Clock Time	PH	Sp. Cond. (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	Temp. (°C)	Water level (ft, MP)	Flow rate (ml/min)
14:30	6.62	1.196	185.4	4.04	4.4	11.3	8.8	340
14:35	6.60	1.191	195.0	4.29	7.6	11.22	9.05	340
14:39	6.61	1.205	182.0	5.28	6.2	11.24	9.3	
14:44	6.61	1.232	203.5	6.58	4.8	10.93	9.63	
14:52	6.65	1.263	210.3	6.62	7.5	11.01	9.95	225
15:03	6.69	1.288	219.3	6.63	38.8	11.07		
15:14	6.83	1.286	221.6	5.43	13.0	11.7	10.0	100.0
15:22	6.83	1.273	222.7	5.17	10.3	11.8	10.2	50.0
15:35	6.84	1.271	224.2	5.16	8.0	11.86	10.2	50.0
							10.2	

pump slipped to 1 below 9.2' water is shown to reduce

Time sample collected: 6/19/13 15:35 Notes: Water clear, trace sol.

Total volume purged: 4.0 Samplers: BJM

Engineers • Environmental Scientists • Planners • Landscape Architects

FIELD SAMPLING DATA SHEET

SITE: 41-55 Washington St
 CLIENT: City of Auburn
 Weather Conditions: _____

SAMPLE LOCATION: MW-1
 JOB #: 156700 554.046.001
 Temperature: _____

SAMPLE TYPE: Groundwater Surface Water Other (specify): _____
 Sediment Leachate

WATER LEVEL DATA

Static Water Level (feet)*:	<u>7.41</u>
Measured Well Depth (feet)*:	<u>14.25</u> BTOL <u>10' 5" screen</u>
Well Casing Diameter (inches):	<u>2</u>
Calculated Volume in Well Casing (gallons):	<u>1.04</u>

Measuring Point: Top of Riser
 Measured by: BJM
 Date: 6/19/13
 Time: 13:39

*depth from measuring point

PURGING METHOD

Equipment: Bailer Submersible Pump Air Lift System
 Bladder Pump Foot Valve Peristaltic Pump
 Dedicated Non-dedicated

Calculated Volume Of Water To Be Purged (gallons): 3.2
 Actual Volume of Water Purged (gallons): 4.0

Did well purge dry? No Yes
 Did well recover? No Yes Recovery Time: _____

SAMPLING METHOD

Equipment: Bailer Submersible Pump Air Lift System
 Bladder Pump Foot Valve Peristaltic Pump
 Dedicated Non-dedicated

Sampled by: BJM Time: 15:35 Date: 6/19/13

SAMPLING DATA

Sample Appearance: clear
 Color: None Sediment: None
 Odor: None

Field Measured Parameters

pH (Standard Units)	<u>6.84</u>	Sp. Conductivity (µmhos/cm)	<u>1271</u>
Temperature (°F)	<u>11.86</u>	Eh-Redox Potential (mV)	<u>224.2</u>
Turbidity (NTUs)	<u>8.0</u>	Dissolved Oxygen (mg/L)	<u>5.16</u>

Samples Collected (Number/Type):

Stubs 9260-8 8260, TPL meter, DCB 8062
6 bottles 60106

Samples Delivered to: _____ Time: _____ Date: _____

COMMENTS:

Field blank 14:02 6/19/13

LOW FLOW GROUNDWATER SAMPLING LOG

Project: 41-55 Washington Street

Monitoring location: MW-2

Sampling device(s): QED Sample Pro & MPJO Compressor

Date of sampling: 6/20/19

Tubing diameter: 1/4" O.D.

Well information:	Static Water Level	Total Depth	Depth to top of screen (ft)	Screen length (ft)	Well Diameter (in)	Pump placement depth (ft)
	9.45	10.70	5.70	5	2	9.2
MP/Notes:						

Clock Time	PH	Sp. Cond. (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	Temp. (°F)	Water level (ft, MP)	Flow rate (ml/min)
13:06	6.49	.376	312.4	2.68	59.6	18.46	9.53	110
13:10	6.11	.363	347.4	2.80	42.2	18.21	9.54	110
13:14	5.94	.361	369.8	2.44	33.3	18.11	9.54	110
13:19	5.97	.361	378.6	3.05	29.6	18.10	9.54	110
13:22	5.44	.362	400.3	3.13	22.4	18.17	9.54	90
13:27	5.95	.364	411.8	3.10	20.5	18.26	9.54	90
13:32	5.96	.365	421.7	3.12	16.8	18.30	9.55	100

↑ Throttle

OK to sample

Time sample collected: 13:34

Notes: Flow through cell in situ ↑ Temp.

Total volume purged: 2.614 / 0.7 gal

Samplers: BJM

Dupe - X Location

FIELD SAMPLING DATA SHEET

SITE: 41-55 Washington St
 CLIENT: City of Auburn
 Weather Conditions: _____

SAMPLE LOCATION: MW-2
 JOB #: 554-046-001
 Temperature: _____

SAMPLE TYPE: Groundwater Surface Water Other (specify): _____
 Sediment Leachate

WATER LEVEL DATA

Static Water Level (feet)*:	<u>9.45</u>
Measured Well Depth (feet)*:	<u>10.70' BTOC 5' screen</u>
Well Casing Diameter (inches):	<u>2"</u>
Calculated Volume in Well Casing (gallons):	<u>0.2</u>

Measuring Point: Top of Riser
 Measured by: PJM
 Date: 6/20/12
 Time: _____

*depth from measuring point

PURGING METHOD

Equipment: Bailer Submersible Pump Air Lift System
 Bladder Pump Foot Valve Peristaltic Pump
 Dedicated Non-dedicated

Calculated Volume Of Water To Be Purged (gallons): 0.6
 Actual Volume of Water Purged (gallons): 0.7

Did well purge dry? No Yes
 Did well recover? No Yes Recovery Time: _____

SAMPLING METHOD

Equipment: Bailer Submersible Pump Air Lift System
 Bladder Pump Foot Valve Peristaltic Pump
 Dedicated Non-dedicated

Sampled by: PJM Time: 13:34 Date: 6/20/12

SAMPLING DATA

Sample Appearance
 Color: Clear Sediment: None
 Odor: None

Field Measured Parameters

pH (Standard Units)	<u>5-9.6</u>	Sp. Conductivity (umhos/cm)	<u>367</u>
Temperature (°C/°F)	<u>18.30</u>	Eh-Redox Potential (mV)	<u>421.7</u>
Turbidity (NTUs)	<u>16.8</u>	Dissolved Oxygen (mg/L)	<u>3.17</u>

Samples Collected (Number/Type):

7 bottles + 7 bottles Duplicate - X location
STAR 8260 + 8270, RAL Metals 60103, PCB 8082

Samples Delivered to: _____ Time: _____ Date: _____

COMMENTS:

Engineers • Environmental Scientists • Planners • Landscape Architects

SITE: 41-55 Washington St
 CLIENT: City of Auburn
 Weather Conditions: Sunny
 SAMPLE TYPE: Groundwater
 Sediment

SAMPLE LOCATION: MW-3
 JOB #: 554-046.001
 Temperature: 74°F
 Surface Water
 Leachate Other (specify): _____

WATER LEVEL DATA

Static Water Level (feet)*:	<u>6.31</u>
Measured Well Depth (feet)*:	<u>9.7' zone 5's screen</u>
Well Casing Diameter (inches):	<u>2"</u>
Calculated Volume in Well Casing (gallons):	<u>0.54</u>

Measuring Point: Top of Riser
 Measured by: BJA
 Date: 6/20/13
 Time: 08:58

*depth from measuring point

PURGING METHOD

Equipment: Bailer Submersible Pump Air Lift System
 Bladder Pump Foot Valve Peristaltic Pump
 Dedicated Non-dedicated

Calculated Volume Of Water To Be Purged (gallons): 1.62
 Actual Volume of Water Purged (gallons): 0.70

Did well purge dry? No Yes
 Did well recover? No Yes Recovery Time: _____

SAMPLING METHOD

Equipment: Bailer Submersible Pump Air Lift System
 Bladder Pump Foot Valve Peristaltic Pump
 Dedicated Non-dedicated

Sampled by: BJM Time: 10:45-11:37 Date: 6/20/13
10:53

SAMPLING DATA

Sample Appearance
 Color: clear Sediment: _____
 Odor: _____

Field Measured Parameters

pH (Standard Units)	<u>6.60</u>	Sp. Conductivity (umhos/cm)	<u>0.772</u>
Temperature (C/F)	<u>12.71</u>	Eh-Redox Potential (mV)	<u>198.2</u>
Turbidity (NTUs)	<u>4.0</u>	Dissolved Oxygen (mg/L)	<u>6.71</u>

Samples Collected (Number/Type): 6 bottles, PCB, Colloid meter, 5 Yaws VUC & SUOC

Samples Delivered to: _____ Time: _____ Date: _____

COMMENTS:



Appendix E
Instrument Calibration Records



Calibration Certificate

Work Order No.: SE-004560

Date of Service: 05/14/13

Unit Under Test: RAE MiniRAE 3000 PID Handheld VOC Monitor

Asset No.: FA00567
Serial No: 592-909117

Technician: LEE REQUA

Initials: LRQ

TEST	Specification	Result
Standard Calibration	Pass/Fail	PASS

TEST STANDARDS USED:

DESCRIPTION	LOT No./EXPIRATION DATE	QUANTITY
100ppm Isobutylene in Air	Lot No. MAM-248-100-5 Exp. 12/12/16	1

TEST EQUIPMENT USED:

DESCRIPTION	ASSET NO.	SERIAL NO.	DATE OF LAST CAL	DATE CAL DUE

Test Equipment and standards are traceable to National standards.

10.6eV Lamp Installed.



GASCO AFFILIATES, LLC.

320 Scarlet Blvd.
Oldsmar, FL 34677
(800) 910-0051
fax: (866) 755-8920
www.gascogas.com

CERTIFICATE OF ANALYSIS

Date: December 12, 2012
Order Number: PO00421
Lot Number: MAM-248-100-5

Customer: Eco-Rental Solutions

Use Before: 12/12/2016

<u>Component</u>	<u>Specification (+/- 10%)</u>	<u>Analytical Result (+/- 2%)</u>
Isobutylene	100 PPM	103.75 PPM
Air	Balance	Balance

Cylinder Size: 1.5 Cu. Ft.
Contents: 44 Liter (EcoSmart)

Valve: 5/8" – 18UNF
Pressure: 825 psig

The calibration gas prepared by Gasco is considered a certified standard. It is prepared by gravimetric, or partial pressure techniques. The calibration standard provided is certified against Gasco's G.M.I.S. (Gas Manufacturer's Intermediate Standard) which is either prepared by weights traceable to the National Institute of Standards and Technology (NIST) or by using NIST Standard Reference Materials where available.

Analyst:

MiniRAE Photoionization Detector (PID) Calibration Record

Date: 5-28-13

Project No. 554-046-001

Time: 9:30

Calibrated By: LJB

Instrument Model: MiniRAE 2000

Calibration Method: Fresh Air and Span Gas

Fresh Air: (1) Turn PID on and ready it, (2) remove to fresh air or attach zero (carbon) filter, (3) start calibration mode, (4) follow instructions on the display screen, (5) run fresh air calibration for approximately 15 seconds, (6) once complete go to span gas calibration.

Fresh Air Calibration Reading: ppm

Fresh Air Calibration Complete: Yes No

Span Gas: (Isobutylene) (1) Following fresh air calibration go to span gas calibration {100.00 ppm Isobutylene}, (2) connect span gas to PID - wait for the PID to prompt you to turn on gas, (3) let the calibration run for approximately 30 seconds {should read 100.0 ppm after calibration}, (4) continue to follow instructions on screen to turn span gas off, (5) once calibration of span gas is complete return back to sampling display mode.

Span Gas Calibration Reading: ppm

Span Gas Calibration Complete: Yes No

Calibration Check: Reattach span gas to PID to verify calibration.

Verification Reading: ppm

Verification Complete (+/- 3.0%, i.e. 97-103ppm): Yes No

*** Refer to user manual for additional information and complete calibration procedure.***

Comments: 41-55 Washington St Boring

MiniRAE Photoionization Detector (PID) Calibration Record

Date: 5-29-13

Project No. 554.046.001

Time: 15:15 pm

Calibrated By: LJB

Instrument Model: MiniRAE 2000

Calibration Method: Fresh Air and Span Gas

Fresh Air: (1) Turn PID on and ready it, (2) remove to fresh air or attach zero (carbon) filter, (3) start calibration mode, (4) follow instructions on the display screen, (5) run fresh air calibration for approximately 15 seconds, (6) once complete go to span gas calibration.

Fresh Air Calibration Reading: ppm

Fresh Air Calibration Complete: Yes No

Span Gas: (Isobutylene) (1) Following fresh air calibration go to span gas calibration {100.00 ppm Isobutylene}, (2) connect span gas to PID - wait for the PID to prompt you to turn on gas, (3) let the calibration run for approximately 30 seconds {should read 100.0 ppm after calibration}, (4) continue to follow instructions on screen to turn span gas off, (5) once calibration of span gas is complete return back to sampling display mode.

Span Gas Calibration Reading: ppm

Span Gas Calibration Complete: Yes No

Calibration Check: Reattach span gas to PID to verify calibration.

Verification Reading: ppm

Verification Complete (+/- 3.0%, i.e. 97-103ppm): Yes No

*** Refer to user manual for additional information and complete calibration procedure.***

Comments: 41-55 Washington St Boring



Calibration Certificate

GW Sampling

rev 8/9/11

411-53 Wash
42-Water

Work Order No.: SE-005131

Date of Service: 06/18/13

Unit Under Test: YSI 6920 V2-2 WQ Sonde pH/ORP/Cond/Temp/Opt DO/Turb

Asset No.: FA00275
Serial No: 12E100819

Technician: KEVIN CLAUSS Initials: KSC

TEST	Specification	Result
Standard Calibration	Pass/Fail	PASS

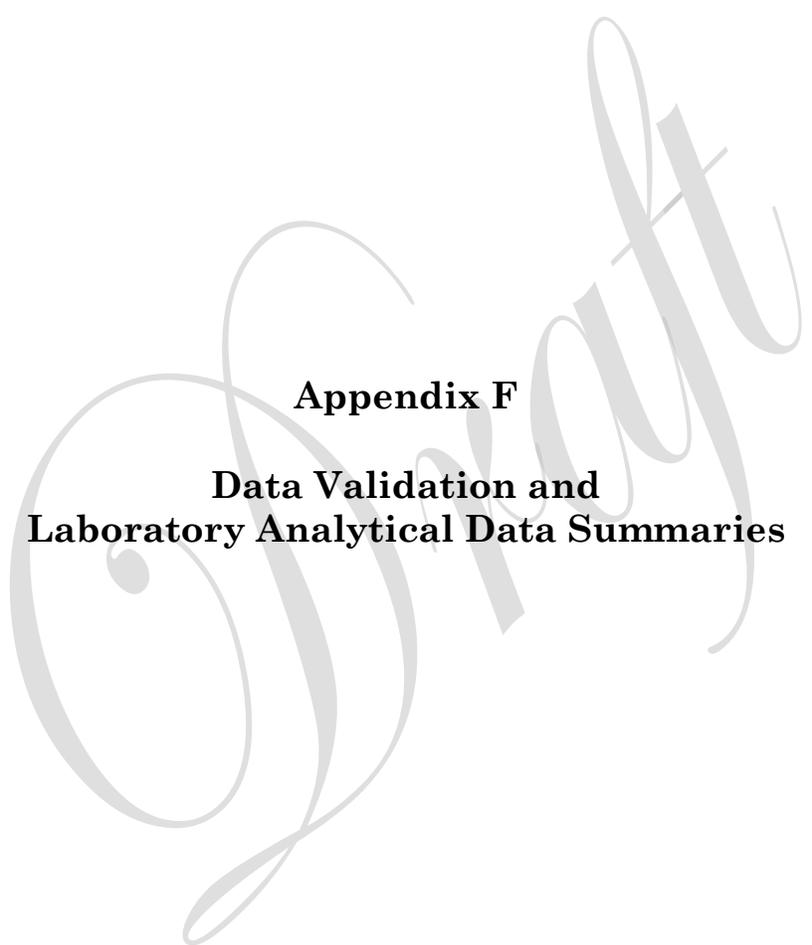
TEST STANDARDS USED:

DESCRIPTION	LOT No./EXPIRATION DATE	QUANTITY
Air Saturated Water		1
Sodium Sulfito/ Zero DO Standard	N/A	1
7.00 mS Conductivity Standard Solution	Lot No. 3AA758 exp.01/14	1
pH 7.00 Standard Solution	Lot No. 2AG534 Exp. 07/31/14	1
pH 10.00 Standard Solution	Lot No. C254458 Exp. 07/19/14	1
pH 4.00 Standard Solution	Lot No. C255426 Exp. 08/28/14	1
ORP Standard Solution	Lot No. 11J100423 Exp. 09/30/13	1
Turbidity Free Water		1
100 NTU AMCO Turbidity Standard	Lot No.C255542 Exp. 01/14	1
EdgeTech DewMaster PPE-0001	sn 41891 cal due 10/23/13	1

TEST EQUIPMENT USED:

DESCRIPTION	ASSET NO.	SERIAL NO.	DATE OF LAST CAL	DATE CAL DUE

Test Equipment and standards are traceable to National standards.



Appendix F
Data Validation and
Laboratory Analytical Data Summaries

Technical Report for

Barton & Loguidice

Auburn EPA Brownfield Phase II, Auburn, NY

554-046-001

Accutest Job Number: MC21006

Sampling Date: 05/16/13

Report to:

Barton & Loguidice

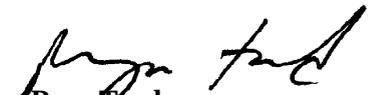
glesniak@bartonandloguidice.com

ATTN: Greg Lesniak

Total number of pages in report: **76**



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



Reza Fand
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136, SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NJ (11791) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) ISO 17025:2005 (L2235)

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

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1

2

3

4

5

Sample Summary

Barton & Loguidice

Job No: **MC21006**

Auburn EPA Brownfield Phase II, Auburn, NY
Project No: 554-046-001

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
MC21006-1	05/16/13	08:55 GVL	05/18/13	SO	Soil	TP-1 7.0'
MC21006-2	05/16/13	09:55 GVL	05/18/13	SO	Soil	TP-2 5-7'
MC21006-3	05/16/13	10:35 GVL	05/18/13	SO	Soil	TP-3 2-4'
MC21006-4	05/16/13	10:42 GVL	05/18/13	SO	Soil	TP-3 6.5-7.0'
MC21006-5	05/16/13	11:05 GVL	05/18/13	SO	Soil	TP-4 2-4'
MC21006-6	05/16/13	11:15 GVL	05/18/13	SO	Soil	TP-4 6-6.5'
MC21006-6D	05/16/13	11:15 GVL	05/18/13	SO	Soil Dup/MSD	TP-4 6-6.5'
MC21006-6S	05/16/13	11:15 GVL	05/18/13	SO	Soil Matrix Spike	TP-4 6-6.5'
MC21006-7	05/16/13	12:50 GVL	05/18/13	SO	Soil	TP-5 2-4'
MC21006-8	05/16/13	14:40 GVL	05/18/13	SO	Soil	TP-6 4-6'
MC21006-9	05/16/13	15:30 GVL	05/18/13	SO	Soil	TP-7 1-3'
MC21006-10	05/16/13	00:00 GVL	05/18/13	SO	Soil	TP-X
MC21006-11	05/16/13	15:45 GVL	05/18/13	SO	Soil	TP-7 5.5-6.0

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



Sample Summary (continued)

Barton & Loguidice

Job No: MC21006

**Auburn EPA Brownfield Phase II, Auburn, NY
Project No: 554-046-001**

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
MC21006-12	05/16/13	15:50	GVL	05/18/13	AQ Trip Blank Water	TRIP BLANK

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

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Barton & Loguidice

Job No MC21006

Site: Auburn EPA Brownfield Phase II, 41-55 Washington Street, Auburn,

Report Date 6/18/2013 11:20:15 AM

11 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were collected on 05/16/2013 and were received at Accutest on 05/18/2013 properly preserved, at 0.5 Deg. C and intact. These Samples received an Accutest job number of MC21006. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

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

Extractables by GCMS By Method SW846 8270C

Matrix: SO

Batch ID: OP33368

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC21185-13MS, MC21185-13MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- OP33368-MS for 3,3'-Dichlorobenzidine, 3-Nitroaniline, 4-Chloroaniline, 4-Nitroaniline, bis(2-Ethylhexyl)phthalate are outside control limits due to possible matrix interference. Refer to Blank Spike.
- OP33368-MSD for 2,4-Dinitrophenol, 3,3'-Dichlorobenzidine, 3-Nitroaniline, 4-Chloroaniline, 4-Nitroaniline, bis(2-Ethylhexyl)phthalate are outside control limits due to possible matrix interference. Refer to Blank Spike.
- RPD(s) for OP33368-MSD for 2,4-Dinitrophenol, Di-n-butyl phthalate are outside control limits. High RPD due to possible matrix and/or sample non-homogeneity.

Matrix: SO

Batch ID: OP33399

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC21006-6MS, MC21006-6MSD were used as the QC samples indicated.
- OP33399-BS/MS/MSD for Hexachlorocyclopentadiene are outside control limits. Blank Spike meets program technical requirements.
- OP33399-MS/MSD for 2,4-Dinitrophenol are outside control limits due to possible matrix interference. Refer to Blank Spike.
- RPD(s) for OP33399-MSD for 2,4-Dinitrophenol are outside control limits. High RPD due to possible matrix interference and/or sample non-homogeneity.

Extractables by GC By Method SW846 8082

Matrix: SO **Batch ID:** OP33385

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC21185-81MS, MC21185-81MSD, OP33385-MSMSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- MC21006-5 for Aroclor 1260: Estimated value due to the presence of other Arochlor pattern.

Matrix: SO **Batch ID:** OP33402

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC21006-6MS, MC21006-6MSD, OP33402-MSMSD were used as the QC samples indicated.

Metals By Method SW846 6010C

Matrix: SO **Batch ID:** MP21026

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC21006-6MSD, MC21006-6PS, MC21006-6SDL, MC21006-6MS were used as the QC samples for metals.
- Matrix Spike Recovery(s) for Antimony are outside control limits. Spike recovery indicates possible matrix interference and/or sample nonhomogeneity. Post spike within acceptable range.
- Matrix Spike Duplicate Recovery(s) for Antimony, Magnesium, Zinc are outside control limits. Spike Duplicate recovery indicates possible matrix interference and/or sample nonhomogeneity.
- Matrix Spike, Matrix Spike Duplicate Recovery(s) for Aluminum, Calcium, Iron, Manganese, Zinc are outside control limits. Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.
- RPD(s) for Serial Dilution for Arsenic, Beryllium, Cadmium, Selenium, Sodium are outside control limits for sample MP21026-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- MP21026-SD1 for Aluminum, Barium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Nickel, Vanadium, Zinc: Serial dilution indicates possible matrix interference.

Metals By Method SW846 7471B

Matrix: SO **Batch ID:** MP21013

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC20974-4MS, MC20974-4MSD were used as the QC samples for metals.

Matrix: SO **Batch ID:** MP21020

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC21006-6MS, MC21006-6MSD were used as the QC samples for metals.

Matrix: SO **Batch ID:** MP21081

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC21154-2MS, MC21154-2MSD were used as the QC samples for metals.

Wet Chemistry By Method SM21 2540 B MOD.

Matrix: SO

Batch ID: GN42910

- Sample(s) MC21006-6DUP were used as the QC samples for Solids, Percent.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety. The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report (MC21006).

Summary of Hits

Job Number: MC21006
 Account: Barton & Loguidice
 Project: Auburn EPA Brownfield Phase II, Auburn, NY
 Collected: 05/16/13



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

MC21006-1 TP-1 7.0'

Anthracene	41.2 J	110	37	ug/kg	SW846 8270C
Benzo(a)anthracene	99.7 J	110	42	ug/kg	SW846 8270C
Benzo(a)pyrene	73.8 J	110	25	ug/kg	SW846 8270C
Benzo(b)fluoranthene	74.3 J	110	26	ug/kg	SW846 8270C
Benzo(k)fluoranthene	64.8 J	110	61	ug/kg	SW846 8270C
Chrysene	94.0 J	110	44	ug/kg	SW846 8270C
Fluoranthene	218	110	33	ug/kg	SW846 8270C
Indeno(1,2,3-cd)pyrene	37.4 J	110	34	ug/kg	SW846 8270C
Phenanthrene	146	110	33	ug/kg	SW846 8270C
Pyrene	169	110	33	ug/kg	SW846 8270C
Aluminum	6260	20	3.5	mg/kg	SW846 6010C
Arsenic	2.7	0.99	0.21	mg/kg	SW846 6010C
Barium	70.7	4.9	0.072	mg/kg	SW846 6010C
Beryllium	0.29 B	0.40	0.024	mg/kg	SW846 6010C
Calcium	75200	2500	31	mg/kg	SW846 6010C
Chromium	9.4	0.99	0.094	mg/kg	SW846 6010C
Cobalt	6.9	4.9	0.046	mg/kg	SW846 6010C
Copper	14.4	2.5	0.55	mg/kg	SW846 6010C
Iron	12500	9.9	0.86	mg/kg	SW846 6010C
Lead	5.6	0.99	0.17	mg/kg	SW846 6010C
Magnesium	28000	490	5.1	mg/kg	SW846 6010C
Manganese	402	1.5	0.040	mg/kg	SW846 6010C
Mercury	0.026 B	0.031	0.0090	mg/kg	SW846 7471B
Nickel	13.1	4.0	0.043	mg/kg	SW846 6010C
Potassium	1370	490	8.5	mg/kg	SW846 6010C
Sodium	132 B	490	3.3	mg/kg	SW846 6010C
Vanadium	10.8	0.99	0.13	mg/kg	SW846 6010C
Zinc	25.0	2.0	0.16	mg/kg	SW846 6010C

MC21006-2 TP-2 5-7'

Anthracene	58.4 J	120	42	ug/kg	SW846 8270C
Benzo(a)anthracene	425	120	47	ug/kg	SW846 8270C
Benzo(a)pyrene	257	120	28	ug/kg	SW846 8270C
Benzo(b)fluoranthene	325	120	29	ug/kg	SW846 8270C
Benzo(g,h,i)perylene	192	120	55	ug/kg	SW846 8270C
Benzo(k)fluoranthene	337	120	68	ug/kg	SW846 8270C
Carbazole	51.7 J	120	51	ug/kg	SW846 8270C
Chrysene	465	120	49	ug/kg	SW846 8270C
Dibenzo(a,h)anthracene	66.4 J	120	49	ug/kg	SW846 8270C
Fluoranthene	795	120	37	ug/kg	SW846 8270C
Indeno(1,2,3-cd)pyrene	176	120	39	ug/kg	SW846 8270C
Phenanthrene	422	120	37	ug/kg	SW846 8270C

Summary of Hits

Job Number: MC21006
 Account: Barton & Loguidice
 Project: Auburn EPA Brownfield Phase II, Auburn, NY
 Collected: 05/16/13



Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Pyrene		562	120	37	ug/kg	SW846 8270C
Aluminum		4230	20	3.6	mg/kg	SW846 6010C
Antimony		2.0	1.0	0.15	mg/kg	SW846 6010C
Arsenic		7.9	1.0	0.21	mg/kg	SW846 6010C
Barium		2010	25	0.37	mg/kg	SW846 6010C
Beryllium		0.31 B	0.41	0.024	mg/kg	SW846 6010C
Cadmium		5.4	0.41	0.043	mg/kg	SW846 6010C
Calcium		33800	510	6.4	mg/kg	SW846 6010C
Chromium		17.8	1.0	0.096	mg/kg	SW846 6010C
Cobalt		10.4	5.1	0.048	mg/kg	SW846 6010C
Copper		623	2.5	0.56	mg/kg	SW846 6010C
Iron		59200	51	4.4	mg/kg	SW846 6010C
Lead		184	1.0	0.17	mg/kg	SW846 6010C
Magnesium		5080	510	5.2	mg/kg	SW846 6010C
Manganese		438	1.5	0.041	mg/kg	SW846 6010C
Mercury		0.35	0.038	0.011	mg/kg	SW846 7471B
Nickel		21.0	4.1	0.044	mg/kg	SW846 6010C
Potassium		832	510	8.7	mg/kg	SW846 6010C
Sodium		382 B	510	3.4	mg/kg	SW846 6010C
Vanadium		24.3	1.0	0.13	mg/kg	SW846 6010C
Zinc		2390	10	0.82	mg/kg	SW846 6010C

MC21006-3 TP-3 2-4'

Benzo(a)anthracene		53.5 J	120	47	ug/kg	SW846 8270C
Benzo(a)pyrene		83.4 J	120	28	ug/kg	SW846 8270C
Benzo(b)fluoranthene		63.9 J	120	29	ug/kg	SW846 8270C
Benzo(g,h,i)perylene		93.5 J	120	55	ug/kg	SW846 8270C
Chrysene		64.8 J	120	49	ug/kg	SW846 8270C
Fluoranthene		71.0 J	120	37	ug/kg	SW846 8270C
Indeno(1,2,3-cd)pyrene		62.1 J	120	39	ug/kg	SW846 8270C
Phenanthrene		48.8 J	120	37	ug/kg	SW846 8270C
Pyrene		72.1 J	120	37	ug/kg	SW846 8270C
Aluminum		7840	20	3.5	mg/kg	SW846 6010C
Antimony		0.72 B	0.99	0.15	mg/kg	SW846 6010C
Arsenic		6.0	0.99	0.21	mg/kg	SW846 6010C
Barium		1330	5.0	0.072	mg/kg	SW846 6010C
Beryllium		0.29 B	0.40	0.024	mg/kg	SW846 6010C
Cadmium		0.83	0.40	0.042	mg/kg	SW846 6010C
Calcium		102000	2500	31	mg/kg	SW846 6010C
Chromium		15.1	0.99	0.094	mg/kg	SW846 6010C
Cobalt		6.2	5.0	0.047	mg/kg	SW846 6010C
Copper		138	2.5	0.55	mg/kg	SW846 6010C
Iron		18900	9.9	0.86	mg/kg	SW846 6010C
Lead		605	0.99	0.17	mg/kg	SW846 6010C

Summary of Hits

Job Number: MC21006
 Account: Barton & Loguidice
 Project: Auburn EPA Brownfield Phase II, Auburn, NY
 Collected: 05/16/13



Lab Sample ID	Client Sample ID	Result/ Analyte	RL	MDL	Units	Method
		Magnesium	11400	500	5.1	mg/kg SW846 6010C
		Manganese	328	1.5	0.040	mg/kg SW846 6010C
		Mercury	0.023 B	0.038	0.011	mg/kg SW846 7471B
		Nickel	15.6	4.0	0.043	mg/kg SW846 6010C
		Potassium	1430	500	8.5	mg/kg SW846 6010C
		Selenium	0.36 B	0.99	0.34	mg/kg SW846 6010C
		Sodium	575	500	3.3	mg/kg SW846 6010C
		Vanadium	29.4	0.99	0.13	mg/kg SW846 6010C
		Zinc	1060	2.0	0.16	mg/kg SW846 6010C
MC21006-4	TP-3 6.5-7.0'					
		Aluminum	6250	20	3.5	mg/kg SW846 6010C
		Arsenic	3.2	0.98	0.20	mg/kg SW846 6010C
		Barium	40.4	4.9	0.071	mg/kg SW846 6010C
		Beryllium	0.29 B	0.39	0.023	mg/kg SW846 6010C
		Cadmium	0.068 B	0.39	0.041	mg/kg SW846 6010C
		Calcium	43900	490	6.1	mg/kg SW846 6010C
		Chromium	15.9	0.98	0.093	mg/kg SW846 6010C
		Cobalt	6.5	4.9	0.046	mg/kg SW846 6010C
		Copper	31.1	2.4	0.54	mg/kg SW846 6010C
		Iron	11800	9.8	0.85	mg/kg SW846 6010C
		Lead	18.6	0.98	0.16	mg/kg SW846 6010C
		Magnesium	17900	490	5.0	mg/kg SW846 6010C
		Manganese	297	1.5	0.039	mg/kg SW846 6010C
		Mercury	0.29	0.030	0.0087	mg/kg SW846 7471B
		Nickel	12.7	3.9	0.043	mg/kg SW846 6010C
		Potassium	1200	490	8.4	mg/kg SW846 6010C
		Sodium	57.4 B	490	3.2	mg/kg SW846 6010C
		Vanadium	11.9	0.98	0.13	mg/kg SW846 6010C
		Zinc	37.0	2.0	0.16	mg/kg SW846 6010C
MC21006-5	TP-4 2-4'					
		Acenaphthene	112 J	120	46	ug/kg SW846 8270C
		Acenaphthylene	101 J	120	33	ug/kg SW846 8270C
		Anthracene	366	120	41	ug/kg SW846 8270C
		Benzo(a)anthracene	1280	120	46	ug/kg SW846 8270C
		Benzo(a)pyrene	1120	120	28	ug/kg SW846 8270C
		Benzo(b)fluoranthene	968	120	28	ug/kg SW846 8270C
		Benzo(g,h,i)perylene	749	120	53	ug/kg SW846 8270C
		Benzo(k)fluoranthene	1020	120	67	ug/kg SW846 8270C
		Carbazole	161	120	50	ug/kg SW846 8270C
		Chrysene	1250	120	48	ug/kg SW846 8270C
		Dibenzo(a,h)anthracene	241	120	48	ug/kg SW846 8270C

Summary of Hits

Job Number: MC21006
 Account: Barton & Loguidice
 Project: Auburn EPA Brownfield Phase II, Auburn, NY
 Collected: 05/16/13



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method	
		Dibenzofuran	87.3 J	120	57	ug/kg	SW846 8270C
		bis(2-Ethylhexyl)phthalate	193 J	300	53	ug/kg	SW846 8270C
		Fluoranthene	2710	120	36	ug/kg	SW846 8270C
		Fluorene	132	120	42	ug/kg	SW846 8270C
		Indeno(1,2,3-cd)pyrene	669	120	38	ug/kg	SW846 8270C
		Naphthalene	99.7 J	120	46	ug/kg	SW846 8270C
		Phenanthrene	1690	120	36	ug/kg	SW846 8270C
		Pyrene	2400	120	36	ug/kg	SW846 8270C
		Aroclor 1254	50.4	30	22	ug/kg	SW846 8082
		Aroclor 1260 ^a	16.8 J	30	15	ug/kg	SW846 8082
		Aluminum	5680	20	3.6	mg/kg	SW846 6010C
		Antimony	0.44 B	1.0	0.15	mg/kg	SW846 6010C
		Arsenic	7.7	1.0	0.21	mg/kg	SW846 6010C
		Barium	694	5.0	0.073	mg/kg	SW846 6010C
		Beryllium	0.31 B	0.40	0.024	mg/kg	SW846 6010C
		Cadmium	0.74	0.40	0.042	mg/kg	SW846 6010C
		Calcium	87000	2500	31	mg/kg	SW846 6010C
		Chromium	20.1	1.0	0.095	mg/kg	SW846 6010C
		Cobalt	6.5	5.0	0.047	mg/kg	SW846 6010C
		Copper	136	2.5	0.56	mg/kg	SW846 6010C
		Iron	19800	10	0.87	mg/kg	SW846 6010C
		Lead	185	1.0	0.17	mg/kg	SW846 6010C
		Magnesium	10300	500	5.1	mg/kg	SW846 6010C
		Manganese	311	1.5	0.040	mg/kg	SW846 6010C
		Mercury	0.68	0.039	0.011	mg/kg	SW846 7471B
		Nickel	13.2	4.0	0.044	mg/kg	SW846 6010C
		Potassium	1070	500	8.6	mg/kg	SW846 6010C
		Silver	0.48 B	0.50	0.13	mg/kg	SW846 6010C
		Sodium	269 B	500	3.3	mg/kg	SW846 6010C
		Vanadium	20.7	1.0	0.13	mg/kg	SW846 6010C
		Zinc	615	2.0	0.16	mg/kg	SW846 6010C
MC21006-6	TP-4 6-6.5'						
		Aluminum	6380	20	3.5	mg/kg	SW846 6010C
		Arsenic	7.0	0.98	0.20	mg/kg	SW846 6010C
		Barium	53.9	4.9	0.071	mg/kg	SW846 6010C
		Beryllium	0.45	0.39	0.023	mg/kg	SW846 6010C
		Cadmium	1.1	0.39	0.042	mg/kg	SW846 6010C
		Calcium	14500	490	6.2	mg/kg	SW846 6010C
		Chromium	9.5	0.98	0.093	mg/kg	SW846 6010C
		Cobalt	6.6	4.9	0.046	mg/kg	SW846 6010C
		Copper	23.0	2.5	0.55	mg/kg	SW846 6010C
		Iron	12800	9.8	0.85	mg/kg	SW846 6010C
		Lead	16.5	0.98	0.17	mg/kg	SW846 6010C

Summary of Hits

Job Number: MC21006
 Account: Barton & Loguidice
 Project: Auburn EPA Brownfield Phase II, Auburn, NY
 Collected: 05/16/13



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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Magnesium		2680	490	5.0	mg/kg	SW846 6010C
Manganese		457	1.5	0.039	mg/kg	SW846 6010C
Mercury		0.052	0.035	0.010	mg/kg	SW846 7471B
Nickel		16.7	3.9	0.043	mg/kg	SW846 6010C
Potassium		909	490	8.4	mg/kg	SW846 6010C
Selenium		0.70 B	0.98	0.34	mg/kg	SW846 6010C
Sodium		36.3 B	490	3.3	mg/kg	SW846 6010C
Vanadium		14.2	0.98	0.13	mg/kg	SW846 6010C
Zinc		251	2.0	0.16	mg/kg	SW846 6010C

MC21006-7 TP-5 2-4'

Acenaphthene		538	120	45	ug/kg	SW846 8270C
Anthracene		1130	120	40	ug/kg	SW846 8270C
Benzo(a)anthracene		2420	120	45	ug/kg	SW846 8270C
Benzo(a)pyrene		1940	120	27	ug/kg	SW846 8270C
Benzo(b)fluoranthene		1750	120	28	ug/kg	SW846 8270C
Benzo(g,h,i)perylene		1020	120	53	ug/kg	SW846 8270C
Benzo(k)fluoranthene		1590	120	66	ug/kg	SW846 8270C
Carbazole		588	120	49	ug/kg	SW846 8270C
Chrysene		2020	120	48	ug/kg	SW846 8270C
Dibenzo(a,h)anthracene		445	120	48	ug/kg	SW846 8270C
Dibenzofuran		397	120	57	ug/kg	SW846 8270C
Di-n-butyl phthalate		61.5 J	300	34	ug/kg	SW846 8270C
Fluoranthene		4700	120	36	ug/kg	SW846 8270C
Fluorene		597	120	42	ug/kg	SW846 8270C
Indeno(1,2,3-cd)pyrene		1030	120	37	ug/kg	SW846 8270C
2-Methylnaphthalene		244	120	61	ug/kg	SW846 8270C
Naphthalene		664	120	46	ug/kg	SW846 8270C
Phenanthrene		3840	120	36	ug/kg	SW846 8270C
Pyrene		3540	120	36	ug/kg	SW846 8270C
Aluminum		7630	20	3.6	mg/kg	SW846 6010C
Arsenic		4.9	1.0	0.21	mg/kg	SW846 6010C
Barium		1040	5.0	0.073	mg/kg	SW846 6010C
Beryllium		0.33 B	0.40	0.024	mg/kg	SW846 6010C
Cadmium		0.55	0.40	0.043	mg/kg	SW846 6010C
Calcium		122000	2500	32	mg/kg	SW846 6010C
Chromium		20.0	1.0	0.096	mg/kg	SW846 6010C
Cobalt		8.0	5.0	0.047	mg/kg	SW846 6010C
Copper		53.0	2.5	0.56	mg/kg	SW846 6010C
Iron		11800	10	0.88	mg/kg	SW846 6010C
Lead		534	1.0	0.17	mg/kg	SW846 6010C
Magnesium		15300	500	5.2	mg/kg	SW846 6010C
Manganese		313	1.5	0.040	mg/kg	SW846 6010C
Mercury		0.041	0.037	0.011	mg/kg	SW846 7471B

Summary of Hits

Job Number: MC21006
 Account: Barton & Loguidice
 Project: Auburn EPA Brownfield Phase II, Auburn, NY
 Collected: 05/16/13



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Nickel		15.3	4.0	0.044	mg/kg	SW846 6010C
Potassium		1780	500	8.6	mg/kg	SW846 6010C
Selenium		0.48 B	1.0	0.35	mg/kg	SW846 6010C
Sodium		424 B	500	3.3	mg/kg	SW846 6010C
Vanadium		29.0	1.0	0.13	mg/kg	SW846 6010C
Zinc		559	2.0	0.16	mg/kg	SW846 6010C
MC21006-8 TP-6 4-6'						
Acenaphthylene		82.9 J	120	33	ug/kg	SW846 8270C
Anthracene		75.0 J	120	41	ug/kg	SW846 8270C
Benzo(a)anthracene		492	120	46	ug/kg	SW846 8270C
Benzo(a)pyrene		463	120	27	ug/kg	SW846 8270C
Benzo(b)fluoranthene		450	120	28	ug/kg	SW846 8270C
Benzo(g,h,i)perylene		374	120	53	ug/kg	SW846 8270C
Benzo(k)fluoranthene		425	120	66	ug/kg	SW846 8270C
Chrysene		569	120	48	ug/kg	SW846 8270C
Dibenzo(a,h)anthracene		119 J	120	48	ug/kg	SW846 8270C
bis(2-Ethylhexyl)phthalate		371	300	53	ug/kg	SW846 8270C
Fluoranthene		639	120	36	ug/kg	SW846 8270C
Indeno(1,2,3-cd)pyrene		304	120	37	ug/kg	SW846 8270C
2-Methylnaphthalene		118 J	120	61	ug/kg	SW846 8270C
Naphthalene		116 J	120	46	ug/kg	SW846 8270C
Phenanthrene		349	120	36	ug/kg	SW846 8270C
Pyrene		655	120	36	ug/kg	SW846 8270C
Aluminum		3590	20	3.6	mg/kg	SW846 6010C
Antimony		1.5	0.99	0.15	mg/kg	SW846 6010C
Arsenic		16.0	0.99	0.21	mg/kg	SW846 6010C
Barium		349	5.0	0.072	mg/kg	SW846 6010C
Beryllium		0.50	0.40	0.024	mg/kg	SW846 6010C
Cadmium		1.3	0.40	0.042	mg/kg	SW846 6010C
Calcium		39800	500	6.2	mg/kg	SW846 6010C
Chromium		27.4	0.99	0.094	mg/kg	SW846 6010C
Cobalt		8.4	5.0	0.047	mg/kg	SW846 6010C
Copper		353	2.5	0.55	mg/kg	SW846 6010C
Iron		15000	9.9	0.87	mg/kg	SW846 6010C
Lead		221	0.99	0.17	mg/kg	SW846 6010C
Magnesium		6700	500	5.1	mg/kg	SW846 6010C
Manganese		228	1.5	0.040	mg/kg	SW846 6010C
Mercury		0.58	0.038	0.011	mg/kg	SW846 7471B
Nickel		34.7	4.0	0.044	mg/kg	SW846 6010C
Potassium		565	500	8.5	mg/kg	SW846 6010C
Selenium		1.1	0.99	0.35	mg/kg	SW846 6010C
Silver		0.98	0.50	0.12	mg/kg	SW846 6010C
Sodium		131 B	500	3.3	mg/kg	SW846 6010C

Summary of Hits

Job Number: MC21006
 Account: Barton & Loguidice
 Project: Auburn EPA Brownfield Phase II, Auburn, NY
 Collected: 05/16/13



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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Vanadium		12.6	0.99	0.13	mg/kg	SW846 6010C
Zinc		623	2.0	0.16	mg/kg	SW846 6010C

MC21006-9 TP-7 1-3'

Acenaphthylene	39.1 J	100	29	ug/kg	SW846 8270C
Anthracene	168	100	36	ug/kg	SW846 8270C
Benzo(a)anthracene	901	100	40	ug/kg	SW846 8270C
Benzo(a)pyrene	729	100	24	ug/kg	SW846 8270C
Benzo(b)fluoranthene	653	100	25	ug/kg	SW846 8270C
Benzo(g,h,i)perylene	382	100	47	ug/kg	SW846 8270C
Benzo(k)fluoranthene	584	100	58	ug/kg	SW846 8270C
Chrysene	774	100	42	ug/kg	SW846 8270C
Dibenzo(a,h)anthracene	149	100	42	ug/kg	SW846 8270C
Fluoranthene	1250	100	32	ug/kg	SW846 8270C
Indeno(1,2,3-cd)pyrene	359	100	33	ug/kg	SW846 8270C
Phenanthrene	453	100	31	ug/kg	SW846 8270C
Pyrene	1050	100	32	ug/kg	SW846 8270C
Aluminum	2980	20	3.6	mg/kg	SW846 6010C
Arsenic	4.2	1.0	0.21	mg/kg	SW846 6010C
Barium	38.6	5.1	0.073	mg/kg	SW846 6010C
Beryllium	0.15 B	0.40	0.024	mg/kg	SW846 6010C
Cadmium	0.081 B	0.40	0.043	mg/kg	SW846 6010C
Calcium	56700	510	6.4	mg/kg	SW846 6010C
Chromium	5.7	1.0	0.096	mg/kg	SW846 6010C
Cobalt	7.2	5.1	0.048	mg/kg	SW846 6010C
Copper	38.8	2.5	0.56	mg/kg	SW846 6010C
Iron	10300	10	0.88	mg/kg	SW846 6010C
Lead	57.2	1.0	0.17	mg/kg	SW846 6010C
Magnesium	13900	510	5.2	mg/kg	SW846 6010C
Manganese	484	1.5	0.040	mg/kg	SW846 6010C
Mercury	0.15	0.034	0.0098	mg/kg	SW846 7471B
Nickel	10.5	4.0	0.044	mg/kg	SW846 6010C
Potassium	426 B	510	8.7	mg/kg	SW846 6010C
Selenium	0.49 B	1.0	0.35	mg/kg	SW846 6010C
Sodium	56.4 B	510	3.4	mg/kg	SW846 6010C
Vanadium	6.7	1.0	0.13	mg/kg	SW846 6010C
Zinc	55.2	2.0	0.16	mg/kg	SW846 6010C

MC21006-10 TP-X

Anthracene	61.9 J	100	35	ug/kg	SW846 8270C
Benzo(a)anthracene	355	100	40	ug/kg	SW846 8270C
Benzo(a)pyrene	314	100	24	ug/kg	SW846 8270C
Benzo(b)fluoranthene	323	100	24	ug/kg	SW846 8270C

Summary of Hits

Job Number: MC21006
 Account: Barton & Loguidice
 Project: Auburn EPA Brownfield Phase II, Auburn, NY
 Collected: 05/16/13



Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Benzo(g,h,i)perylene		182	100	46	ug/kg	SW846 8270C
Benzo(k)fluoranthene		223	100	58	ug/kg	SW846 8270C
Chrysene		333	100	42	ug/kg	SW846 8270C
Dibenzo(a,h)anthracene		71.0 J	100	42	ug/kg	SW846 8270C
Fluoranthene		485	100	31	ug/kg	SW846 8270C
Indeno(1,2,3-cd)pyrene		171	100	33	ug/kg	SW846 8270C
Phenanthrene		177	100	31	ug/kg	SW846 8270C
Pyrene		398	100	31	ug/kg	SW846 8270C
Aluminum		2770	20	3.6	mg/kg	SW846 6010C
Arsenic		3.5	1.0	0.21	mg/kg	SW846 6010C
Barium		26.5	5.0	0.073	mg/kg	SW846 6010C
Beryllium		0.14 B	0.40	0.024	mg/kg	SW846 6010C
Cadmium		0.080 B	0.40	0.042	mg/kg	SW846 6010C
Calcium		80400	2500	31	mg/kg	SW846 6010C
Chromium		6.6	1.0	0.095	mg/kg	SW846 6010C
Cobalt		6.7	5.0	0.047	mg/kg	SW846 6010C
Copper		34.9	2.5	0.55	mg/kg	SW846 6010C
Iron		11800	10	0.87	mg/kg	SW846 6010C
Lead		193	1.0	0.17	mg/kg	SW846 6010C
Magnesium		13900	500	5.1	mg/kg	SW846 6010C
Manganese		340	1.5	0.040	mg/kg	SW846 6010C
Mercury		0.044	0.033	0.0095	mg/kg	SW846 7471B
Nickel		9.9	4.0	0.044	mg/kg	SW846 6010C
Potassium		480 B	500	8.6	mg/kg	SW846 6010C
Selenium		0.38 B	1.0	0.35	mg/kg	SW846 6010C
Sodium		61.1 B	500	3.3	mg/kg	SW846 6010C
Vanadium		5.9	1.0	0.13	mg/kg	SW846 6010C
Zinc		42.6	2.0	0.16	mg/kg	SW846 6010C

MC21006-11 TP-7 5.5-6.0

Anthracene		96.2 J	130	44	ug/kg	SW846 8270C
Benzo(a)anthracene		424	130	50	ug/kg	SW846 8270C
Benzo(a)pyrene		347	130	30	ug/kg	SW846 8270C
Benzo(b)fluoranthene		334	130	31	ug/kg	SW846 8270C
Benzo(g,h,i)perylene		190	130	58	ug/kg	SW846 8270C
Benzo(k)fluoranthene		267	130	72	ug/kg	SW846 8270C
Chrysene		398	130	52	ug/kg	SW846 8270C
Dibenzo(a,h)anthracene		83.2 J	130	52	ug/kg	SW846 8270C
bis(2-Ethylhexyl)phthalate		128 J	320	57	ug/kg	SW846 8270C
Fluoranthene		685	130	39	ug/kg	SW846 8270C
Indeno(1,2,3-cd)pyrene		184	130	41	ug/kg	SW846 8270C
Phenanthrene		279	130	39	ug/kg	SW846 8270C
Pyrene		559	130	39	ug/kg	SW846 8270C
Aluminum		4150	20	3.6	mg/kg	SW846 6010C

Summary of Hits

Job Number: MC21006
Account: Barton & Loguidice
Project: Auburn EPA Brownfield Phase II, Auburn, NY
Collected: 05/16/13



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
		0.91 B	1.0	0.15	mg/kg	SW846 6010C
		6.6	1.0	0.21	mg/kg	SW846 6010C
		52.0	5.0	0.072	mg/kg	SW846 6010C
		0.56	0.40	0.024	mg/kg	SW846 6010C
		0.64	0.40	0.042	mg/kg	SW846 6010C
		53200	500	6.3	mg/kg	SW846 6010C
		16.7	1.0	0.095	mg/kg	SW846 6010C
		10	5.0	0.047	mg/kg	SW846 6010C
		95.8	2.5	0.55	mg/kg	SW846 6010C
		15300	10	0.87	mg/kg	SW846 6010C
		100	1.0	0.17	mg/kg	SW846 6010C
		10400	500	5.1	mg/kg	SW846 6010C
		255	1.5	0.040	mg/kg	SW846 6010C
		0.72	0.034	0.010	mg/kg	SW846 7471B
		28.8	4.0	0.044	mg/kg	SW846 6010C
		425 B	500	8.5	mg/kg	SW846 6010C
		1.5	1.0	0.35	mg/kg	SW846 6010C
		0.15 B	0.50	0.12	mg/kg	SW846 6010C
		132 B	500	3.3	mg/kg	SW846 6010C
		10.5	1.0	0.13	mg/kg	SW846 6010C
		582	2.0	0.16	mg/kg	SW846 6010C

(a) Estimated value due to the presence of other Arochlor pattern.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	TP-1 7.0'	Date Sampled:	05/16/13
Lab Sample ID:	MC21006-1	Date Received:	05/18/13
Matrix:	SO - Soil	Percent Solids:	89.5
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	F64786.D	1	06/04/13	KR	05/28/13	OP33368	MSF3010

Run #1	Initial Weight	Final Volume
Run #2	20.6 g	1.0 ml

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	270	100	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	540	100	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	540	100	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	540	95	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	540	88	ug/kg	
95-48-7	2-Methylphenol	ND	540	90	ug/kg	
	3&4-Methylphenol	ND	540	180	ug/kg	
88-75-5	2-Nitrophenol	ND	540	110	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	190	ug/kg	
87-86-5	Pentachlorophenol	ND	540	110	ug/kg	
108-95-2	Phenol	ND	270	64	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	540	86	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	540	69	ug/kg	
83-32-9	Acenaphthene	ND	110	42	ug/kg	
208-96-8	Acenaphthylene	ND	110	30	ug/kg	
120-12-7	Anthracene	41.2	110	37	ug/kg	J
56-55-3	Benzo(a)anthracene	99.7	110	42	ug/kg	J
50-32-8	Benzo(a)pyrene	73.8	110	25	ug/kg	J
205-99-2	Benzo(b)fluoranthene	74.3	110	26	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	ND	110	49	ug/kg	
207-08-9	Benzo(k)fluoranthene	64.8	110	61	ug/kg	J
101-55-3	4-Bromophenyl phenyl ether	ND	270	35	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	270	39	ug/kg	
91-58-7	2-Chloronaphthalene	ND	270	45	ug/kg	
106-47-8	4-Chloroaniline	ND	540	47	ug/kg	
86-74-8	Carbazole	ND	110	45	ug/kg	
218-01-9	Chrysene	94.0	110	44	ug/kg	J
111-91-1	bis(2-Chloroethoxy)methane	ND	270	51	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	270	56	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	270	76	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	270	44	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-1 7.0'	Date Sampled:	05/16/13
Lab Sample ID:	MC21006-1	Date Received:	05/18/13
Matrix:	SO - Soil	Percent Solids:	89.5
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	270	56	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	270	57	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	270	56	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	540	42	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	540	27	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	270	27	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	44	ug/kg	
132-64-9	Dibenzofuran	ND	110	52	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	270	31	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	270	29	ug/kg	
84-66-2	Diethyl phthalate	ND	270	39	ug/kg	
131-11-3	Dimethyl phthalate	ND	270	45	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	270	48	ug/kg	
206-44-0	Fluoranthene	218	110	33	ug/kg	
86-73-7	Fluorene	ND	110	38	ug/kg	
118-74-1	Hexachlorobenzene	ND	270	47	ug/kg	
87-68-3	Hexachlorobutadiene	ND	270	58	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	540	140	ug/kg	
67-72-1	Hexachloroethane	ND	270	72	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	37.4	110	34	ug/kg	J
78-59-1	Isophorone	ND	270	44	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	56	ug/kg	
88-74-4	2-Nitroaniline	ND	540	39	ug/kg	
99-09-2	3-Nitroaniline	ND	540	60	ug/kg	
100-01-6	4-Nitroaniline	ND	540	54	ug/kg	
91-20-3	Naphthalene	ND	110	42	ug/kg	
98-95-3	Nitrobenzene	ND	270	52	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	270	67	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	270	31	ug/kg	
85-01-8	Phenanthrene	146	110	33	ug/kg	
129-00-0	Pyrene	169	110	33	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	270	52	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	67%		30-130%
4165-62-2	Phenol-d5	66%		30-130%
118-79-6	2,4,6-Tribromophenol	70%		30-130%
4165-60-0	Nitrobenzene-d5	72%		30-130%
321-60-8	2-Fluorobiphenyl	70%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: TP-1 7.0' Lab Sample ID: MC21006-1 Matrix: SO - Soil Method: SW846 8270C SW846 3546 Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 05/16/13 Date Received: 05/18/13 Percent Solids: 89.5
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ABN TCL List

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

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.1
4

Report of Analysis

Client Sample ID:	TP-1 7.0'	Date Sampled:	05/16/13
Lab Sample ID:	MC21006-1	Date Received:	05/18/13
Matrix:	SO - Soil	Percent Solids:	89.5
Method:	SW846 8082 SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK25576.D	1	06/05/13	NK	05/29/13	OP33385	GBK882
Run #2							

Run #	Initial Weight	Final Volume
Run #1	20.2 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	28	13	ug/kg	
11104-28-2	Aroclor 1221	ND	28	17	ug/kg	
11141-16-5	Aroclor 1232	ND	28	13	ug/kg	
53469-21-9	Aroclor 1242	ND	28	14	ug/kg	
12672-29-6	Aroclor 1248	ND	28	12	ug/kg	
11097-69-1	Aroclor 1254	ND	28	20	ug/kg	
11096-82-5	Aroclor 1260	ND	28	14	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	94%		30-150%
877-09-8	Tetrachloro-m-xylene	117%		30-150%
2051-24-3	Decachlorobiphenyl	114%		30-150%
2051-24-3	Decachlorobiphenyl	128%		30-150%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-1 7.0'	Date Sampled:	05/16/13
Lab Sample ID:	MC21006-1	Date Received:	05/18/13
Matrix:	SO - Soil	Percent Solids:	89.5
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	6260	20	3.5	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Antimony	0.15 U	0.99	0.15	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Arsenic	2.7	0.99	0.21	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Barium	70.7	4.9	0.072	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Beryllium	0.29 B	0.40	0.024	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Cadmium	0.042 U	0.40	0.042	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Calcium	75200	2500	31	mg/kg	5	05/22/13	05/24/13	EAL SW846 6010C ³	SW846 3050B ⁵
Chromium	9.4	0.99	0.094	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Cobalt	6.9	4.9	0.046	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Copper	14.4	2.5	0.55	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Iron	12500	9.9	0.86	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Lead	5.6	0.99	0.17	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Magnesium	28000	490	5.1	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Manganese	402	1.5	0.040	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Mercury	0.026 B	0.031	0.0090	mg/kg	1	05/21/13	05/22/13	SA SW846 7471B ¹	SW846 7471B ⁴
Nickel	13.1	4.0	0.043	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Potassium	1370	490	8.5	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Selenium	0.34 U	0.99	0.34	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Silver	0.12 U	0.49	0.12	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Sodium	132 B	490	3.3	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Thallium	0.13 U	0.99	0.13	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Vanadium	10.8	0.99	0.13	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Zinc	25.0	2.0	0.16	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵

- (1) Instrument QC Batch: MA15630
(2) Instrument QC Batch: MA15650
(3) Instrument QC Batch: MA15657
(4) Prep QC Batch: MP21013
(5) Prep QC Batch: MP21026

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	TP-2 5-7'	Date Sampled:	05/16/13
Lab Sample ID:	MC21006-2	Date Received:	05/18/13
Matrix:	SO - Soil	Percent Solids:	81.6
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F64787.D	1	06/04/13	KR	05/28/13	OP33368	MSF3010
Run #2							

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

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	300	110	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	610	110	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	610	110	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	610	110	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1200	150	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	610	99	ug/kg	
95-48-7	2-Methylphenol	ND	610	100	ug/kg	
	3&4-Methylphenol	ND	610	210	ug/kg	
88-75-5	2-Nitrophenol	ND	610	120	ug/kg	
100-02-7	4-Nitrophenol	ND	1200	220	ug/kg	
87-86-5	Pentachlorophenol	ND	610	120	ug/kg	
108-95-2	Phenol	ND	300	72	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	610	97	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	610	78	ug/kg	
83-32-9	Acenaphthene	ND	120	47	ug/kg	
208-96-8	Acenaphthylene	ND	120	34	ug/kg	
120-12-7	Anthracene	58.4	120	42	ug/kg	J
56-55-3	Benzo(a)anthracene	425	120	47	ug/kg	
50-32-8	Benzo(a)pyrene	257	120	28	ug/kg	
205-99-2	Benzo(b)fluoranthene	325	120	29	ug/kg	
191-24-2	Benzo(g,h,i)perylene	192	120	55	ug/kg	
207-08-9	Benzo(k)fluoranthene	337	120	68	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	300	39	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	300	44	ug/kg	
91-58-7	2-Chloronaphthalene	ND	300	50	ug/kg	
106-47-8	4-Chloroaniline	ND	610	53	ug/kg	
86-74-8	Carbazole	51.7	120	51	ug/kg	J
218-01-9	Chrysene	465	120	49	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	300	57	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	300	63	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	300	85	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	300	50	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-2 5-7'	Date Sampled:	05/16/13
Lab Sample ID:	MC21006-2	Date Received:	05/18/13
Matrix:	SO - Soil	Percent Solids:	81.6
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	300	62	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	300	64	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	300	63	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	610	47	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	610	30	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	300	30	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	66.4	120	49	ug/kg	J
132-64-9	Dibenzofuran	ND	120	59	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	300	35	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	300	33	ug/kg	
84-66-2	Diethyl phthalate	ND	300	44	ug/kg	
131-11-3	Dimethyl phthalate	ND	300	50	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	300	54	ug/kg	
206-44-0	Fluoranthene	795	120	37	ug/kg	
86-73-7	Fluorene	ND	120	43	ug/kg	
118-74-1	Hexachlorobenzene	ND	300	53	ug/kg	
87-68-3	Hexachlorobutadiene	ND	300	65	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	610	150	ug/kg	
67-72-1	Hexachloroethane	ND	300	81	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	176	120	39	ug/kg	
78-59-1	Isophorone	ND	300	50	ug/kg	
91-57-6	2-Methylnaphthalene	ND	120	63	ug/kg	
88-74-4	2-Nitroaniline	ND	610	44	ug/kg	
99-09-2	3-Nitroaniline	ND	610	67	ug/kg	
100-01-6	4-Nitroaniline	ND	610	61	ug/kg	
91-20-3	Naphthalene	ND	120	47	ug/kg	
98-95-3	Nitrobenzene	ND	300	59	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	300	75	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	300	35	ug/kg	
85-01-8	Phenanthrene	422	120	37	ug/kg	
129-00-0	Pyrene	562	120	37	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	300	59	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	66%		30-130%
4165-62-2	Phenol-d5	66%		30-130%
118-79-6	2,4,6-Tribromophenol	72%		30-130%
4165-60-0	Nitrobenzene-d5	75%		30-130%
321-60-8	2-Fluorobiphenyl	71%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: TP-2 5-7'		Date Sampled: 05/16/13
Lab Sample ID: MC21006-2		Date Received: 05/18/13
Matrix: SO - Soil		Percent Solids: 81.6
Method: SW846 8270C SW846 3546		
Project: Auburn EPA Brownfield Phase II, Auburn, NY		

ABN TCL List

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

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.2
4

Report of Analysis

Client Sample ID: TP-2 5-7' Lab Sample ID: MC21006-2 Matrix: SO - Soil Method: SW846 8082 SW846 3546 Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 05/16/13 Date Received: 05/18/13 Percent Solids: 81.6
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK25577.D	1	06/05/13	NK	05/29/13	OP33385	GBK882
Run #2							

Run #	Initial Weight	Final Volume
Run #1	20.5 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	30	14	ug/kg	
11104-28-2	Aroclor 1221	ND	30	18	ug/kg	
11141-16-5	Aroclor 1232	ND	30	14	ug/kg	
53469-21-9	Aroclor 1242	ND	30	15	ug/kg	
12672-29-6	Aroclor 1248	ND	30	13	ug/kg	
11097-69-1	Aroclor 1254	ND	30	22	ug/kg	
11096-82-5	Aroclor 1260	ND	30	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	95%		30-150%
877-09-8	Tetrachloro-m-xylene	95%		30-150%
2051-24-3	Decachlorobiphenyl	94%		30-150%
2051-24-3	Decachlorobiphenyl	110%		30-150%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.2
4

Report of Analysis

Client Sample ID:	TP-2 5-7'	Date Sampled:	05/16/13
Lab Sample ID:	MC21006-2	Date Received:	05/18/13
Matrix:	SO - Soil	Percent Solids:	81.6
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	4230	20	3.6	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Antimony	2.0	1.0	0.15	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Arsenic	7.9	1.0	0.21	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Barium	2010	25	0.37	mg/kg	5	05/22/13	05/24/13	EAL SW846 6010C ³	SW846 3050B ⁵
Beryllium	0.31 B	0.41	0.024	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Cadmium	5.4	0.41	0.043	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Calcium	33800	510	6.4	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Chromium	17.8	1.0	0.096	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Cobalt	10.4	5.1	0.048	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Copper	623	2.5	0.56	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Iron	59200	51	4.4	mg/kg	5	05/22/13	05/24/13	EAL SW846 6010C ³	SW846 3050B ⁵
Lead	184	1.0	0.17	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Magnesium	5080	510	5.2	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Manganese	438	1.5	0.041	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Mercury	0.35	0.038	0.011	mg/kg	1	05/21/13	05/22/13	SA SW846 7471B ¹	SW846 7471B ⁴
Nickel	21.0	4.1	0.044	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Potassium	832	510	8.7	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Selenium	0.35 U	1.0	0.35	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Silver	0.13 U	0.51	0.13	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Sodium	382 B	510	3.4	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Thallium	0.13 U	1.0	0.13	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Vanadium	24.3	1.0	0.13	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Zinc	2390	10	0.82	mg/kg	5	05/22/13	05/24/13	EAL SW846 6010C ³	SW846 3050B ⁵

(1) Instrument QC Batch: MA15630

(2) Instrument QC Batch: MA15650

(3) Instrument QC Batch: MA15657

(4) Prep QC Batch: MP21013

(5) Prep QC Batch: MP21026

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	TP-3 2-4'	Date Sampled:	05/16/13
Lab Sample ID:	MC21006-3	Date Received:	05/18/13
Matrix:	SO - Soil	Percent Solids:	79.5
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	F64788.D	1	06/04/13	KR	05/28/13	OP33368	MSF3010

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

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	300	110	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	610	110	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	610	110	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	610	110	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1200	150	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	610	99	ug/kg	
95-48-7	2-Methylphenol	ND	610	100	ug/kg	
	3&4-Methylphenol	ND	610	210	ug/kg	
88-75-5	2-Nitrophenol	ND	610	120	ug/kg	
100-02-7	4-Nitrophenol	ND	1200	220	ug/kg	
87-86-5	Pentachlorophenol	ND	610	120	ug/kg	
108-95-2	Phenol	ND	300	72	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	610	97	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	610	78	ug/kg	
83-32-9	Acenaphthene	ND	120	47	ug/kg	
208-96-8	Acenaphthylene	ND	120	34	ug/kg	
120-12-7	Anthracene	ND	120	42	ug/kg	
56-55-3	Benzo(a)anthracene	53.5	120	47	ug/kg	J
50-32-8	Benzo(a)pyrene	83.4	120	28	ug/kg	J
205-99-2	Benzo(b)fluoranthene	63.9	120	29	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	93.5	120	55	ug/kg	J
207-08-9	Benzo(k)fluoranthene	ND	120	68	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	300	39	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	300	44	ug/kg	
91-58-7	2-Chloronaphthalene	ND	300	50	ug/kg	
106-47-8	4-Chloroaniline	ND	610	53	ug/kg	
86-74-8	Carbazole	ND	120	51	ug/kg	
218-01-9	Chrysene	64.8	120	49	ug/kg	J
111-91-1	bis(2-Chloroethoxy)methane	ND	300	57	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	300	62	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	300	85	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	300	50	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-3 2-4'	Date Sampled:	05/16/13
Lab Sample ID:	MC21006-3	Date Received:	05/18/13
Matrix:	SO - Soil	Percent Solids:	79.5
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	300	62	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	300	63	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	300	63	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	610	47	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	610	30	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	300	30	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	120	49	ug/kg	
132-64-9	Dibenzofuran	ND	120	59	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	300	35	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	300	33	ug/kg	
84-66-2	Diethyl phthalate	ND	300	44	ug/kg	
131-11-3	Dimethyl phthalate	ND	300	50	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	300	54	ug/kg	
206-44-0	Fluoranthene	71.0	120	37	ug/kg	J
86-73-7	Fluorene	ND	120	43	ug/kg	
118-74-1	Hexachlorobenzene	ND	300	53	ug/kg	
87-68-3	Hexachlorobutadiene	ND	300	65	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	610	150	ug/kg	
67-72-1	Hexachloroethane	ND	300	81	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	62.1	120	39	ug/kg	J
78-59-1	Isophorone	ND	300	50	ug/kg	
91-57-6	2-Methylnaphthalene	ND	120	63	ug/kg	
88-74-4	2-Nitroaniline	ND	610	44	ug/kg	
99-09-2	3-Nitroaniline	ND	610	67	ug/kg	
100-01-6	4-Nitroaniline	ND	610	61	ug/kg	
91-20-3	Naphthalene	ND	120	47	ug/kg	
98-95-3	Nitrobenzene	ND	300	59	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	300	75	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	300	35	ug/kg	
85-01-8	Phenanthrene	48.8	120	37	ug/kg	J
129-00-0	Pyrene	72.1	120	37	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	300	59	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	54%		30-130%
4165-62-2	Phenol-d5	61%		30-130%
118-79-6	2,4,6-Tribromophenol	30%		30-130%
4165-60-0	Nitrobenzene-d5	66%		30-130%
321-60-8	2-Fluorobiphenyl	70%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: TP-3 2-4' Lab Sample ID: MC21006-3 Matrix: SO - Soil Method: SW846 8270C SW846 3546 Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 05/16/13 Date Received: 05/18/13 Percent Solids: 79.5
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ABN TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	81%		30-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.3
4

Report of Analysis

Client Sample ID: TP-3 2-4' Lab Sample ID: MC21006-3 Matrix: SO - Soil Method: SW846 8082 SW846 3546 Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 05/16/13 Date Received: 05/18/13 Percent Solids: 79.5
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK25578.D	1	06/05/13	NK	05/29/13	OP33385	GBK882
Run #2							

Run #	Initial Weight	Final Volume
Run #1	20.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	31	14	ug/kg	
11104-28-2	Aroclor 1221	ND	31	19	ug/kg	
11141-16-5	Aroclor 1232	ND	31	15	ug/kg	
53469-21-9	Aroclor 1242	ND	31	15	ug/kg	
12672-29-6	Aroclor 1248	ND	31	14	ug/kg	
11097-69-1	Aroclor 1254	ND	31	23	ug/kg	
11096-82-5	Aroclor 1260	ND	31	16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	94%		30-150%
877-09-8	Tetrachloro-m-xylene	100%		30-150%
2051-24-3	Decachlorobiphenyl	99%		30-150%
2051-24-3	Decachlorobiphenyl	109%		30-150%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.3
4

Report of Analysis

Client Sample ID:	TP-3 2-4'	Date Sampled:	05/16/13
Lab Sample ID:	MC21006-3	Date Received:	05/18/13
Matrix:	SO - Soil	Percent Solids:	79.5
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	7840	20	3.5	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁵
Antimony	0.72 B	0.99	0.15	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁵
Arsenic	6.0	0.99	0.21	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁵
Barium	1330	5.0	0.072	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁵
Beryllium	0.29 B	0.40	0.024	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁵
Cadmium	0.83	0.40	0.042	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁵
Calcium	102000	2500	31	mg/kg	5	05/22/13	05/24/13 EAL	SW846 6010C ³	SW846 3050B ⁵
Chromium	15.1	0.99	0.094	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁵
Cobalt	6.2	5.0	0.047	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁵
Copper	138	2.5	0.55	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁵
Iron	18900	9.9	0.86	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁵
Lead	605	0.99	0.17	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁵
Magnesium	11400	500	5.1	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁵
Manganese	328	1.5	0.040	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁵
Mercury	0.023 B	0.038	0.011	mg/kg	1	05/21/13	05/22/13 SA	SW846 7471B ¹	SW846 7471B ⁴
Nickel	15.6	4.0	0.043	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁵
Potassium	1430	500	8.5	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁵
Selenium	0.36 B	0.99	0.34	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁵
Silver	0.12 U	0.50	0.12	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁵
Sodium	575	500	3.3	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁵
Thallium	0.13 U	0.99	0.13	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁵
Vanadium	29.4	0.99	0.13	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁵
Zinc	1060	2.0	0.16	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁵

- (1) Instrument QC Batch: MA15630
(2) Instrument QC Batch: MA15650
(3) Instrument QC Batch: MA15657
(4) Prep QC Batch: MP21013
(5) Prep QC Batch: MP21026

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	TP-3 6.5-7.0'	Date Sampled:	05/16/13
Lab Sample ID:	MC21006-4	Date Received:	05/18/13
Matrix:	SO - Soil	Percent Solids:	86.8
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	F64789.D	1	06/04/13	KR	05/28/13	OP33368	MSF3010

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

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	280	110	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	570	110	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	570	110	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	570	99	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	570	93	ug/kg	
95-48-7	2-Methylphenol	ND	570	94	ug/kg	
	3&4-Methylphenol	ND	570	190	ug/kg	
88-75-5	2-Nitrophenol	ND	570	110	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	200	ug/kg	
87-86-5	Pentachlorophenol	ND	570	110	ug/kg	
108-95-2	Phenol	ND	280	67	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	570	90	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	570	73	ug/kg	
83-32-9	Acenaphthene	ND	110	44	ug/kg	
208-96-8	Acenaphthylene	ND	110	32	ug/kg	
120-12-7	Anthracene	ND	110	39	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	44	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	26	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	27	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	51	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	64	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	280	37	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	280	41	ug/kg	
91-58-7	2-Chloronaphthalene	ND	280	47	ug/kg	
106-47-8	4-Chloroaniline	ND	570	50	ug/kg	
86-74-8	Carbazole	ND	110	47	ug/kg	
218-01-9	Chrysene	ND	110	46	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	280	53	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	280	58	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	280	79	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	280	47	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-3 6.5-7.0'	Date Sampled:	05/16/13
Lab Sample ID:	MC21006-4	Date Received:	05/18/13
Matrix:	SO - Soil	Percent Solids:	86.8
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	280	58	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	280	59	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	280	59	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	570	44	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	570	28	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	280	28	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	46	ug/kg	
132-64-9	Dibenzofuran	ND	110	55	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	280	33	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	280	31	ug/kg	
84-66-2	Diethyl phthalate	ND	280	41	ug/kg	
131-11-3	Dimethyl phthalate	ND	280	47	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	280	50	ug/kg	
206-44-0	Fluoranthene	ND	110	34	ug/kg	
86-73-7	Fluorene	ND	110	40	ug/kg	
118-74-1	Hexachlorobenzene	ND	280	49	ug/kg	
87-68-3	Hexachlorobutadiene	ND	280	60	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	570	140	ug/kg	
67-72-1	Hexachloroethane	ND	280	75	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	36	ug/kg	
78-59-1	Isophorone	ND	280	46	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	59	ug/kg	
88-74-4	2-Nitroaniline	ND	570	41	ug/kg	
99-09-2	3-Nitroaniline	ND	570	63	ug/kg	
100-01-6	4-Nitroaniline	ND	570	57	ug/kg	
91-20-3	Naphthalene	ND	110	44	ug/kg	
98-95-3	Nitrobenzene	ND	280	55	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	280	70	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	280	33	ug/kg	
85-01-8	Phenanthrene	ND	110	34	ug/kg	
129-00-0	Pyrene	ND	110	35	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	280	55	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	62%		30-130%
4165-62-2	Phenol-d5	62%		30-130%
118-79-6	2,4,6-Tribromophenol	72%		30-130%
4165-60-0	Nitrobenzene-d5	68%		30-130%
321-60-8	2-Fluorobiphenyl	64%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: TP-3 6.5-7.0'		Date Sampled: 05/16/13
Lab Sample ID: MC21006-4		Date Received: 05/18/13
Matrix: SO - Soil		Percent Solids: 86.8
Method: SW846 8270C SW846 3546		
Project: Auburn EPA Brownfield Phase II, Auburn, NY		

ABN TCL List

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

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.4
4

Report of Analysis

Client Sample ID: TP-3 6.5-7.0' Lab Sample ID: MC21006-4 Matrix: SO - Soil Method: SW846 8082 SW846 3546 Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 05/16/13 Date Received: 05/18/13 Percent Solids: 86.8
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK25579.D	1	06/05/13	NK	05/29/13	OP33385	GBK882
Run #2							

Run #	Initial Weight	Final Volume
Run #1	20.4 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	28	13	ug/kg	
11104-28-2	Aroclor 1221	ND	28	17	ug/kg	
11141-16-5	Aroclor 1232	ND	28	13	ug/kg	
53469-21-9	Aroclor 1242	ND	28	14	ug/kg	
12672-29-6	Aroclor 1248	ND	28	13	ug/kg	
11097-69-1	Aroclor 1254	ND	28	21	ug/kg	
11096-82-5	Aroclor 1260	ND	28	14	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	96%		30-150%
877-09-8	Tetrachloro-m-xylene	110%		30-150%
2051-24-3	Decachlorobiphenyl	104%		30-150%
2051-24-3	Decachlorobiphenyl	117%		30-150%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.4
4

Report of Analysis

Client Sample ID:	TP-3 6.5-7.0'	Date Sampled:	05/16/13
Lab Sample ID:	MC21006-4	Date Received:	05/18/13
Matrix:	SO - Soil	Percent Solids:	86.8
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	6250	20	3.5	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Antimony	0.15 U	0.98	0.15	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Arsenic	3.2	0.98	0.20	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Barium	40.4	4.9	0.071	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Beryllium	0.29 B	0.39	0.023	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Cadmium	0.068 B	0.39	0.041	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Calcium	43900	490	6.1	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Chromium	15.9	0.98	0.093	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Cobalt	6.5	4.9	0.046	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Copper	31.1	2.4	0.54	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Iron	11800	9.8	0.85	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Lead	18.6	0.98	0.16	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Magnesium	17900	490	5.0	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Manganese	297	1.5	0.039	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Mercury	0.29	0.030	0.0087	mg/kg	1	05/21/13	05/22/13 SA	SW846 7471B ¹	SW846 7471B ³
Nickel	12.7	3.9	0.043	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Potassium	1200	490	8.4	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Selenium	0.34 U	0.98	0.34	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Silver	0.12 U	0.49	0.12	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Sodium	57.4 B	490	3.2	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Thallium	0.13 U	0.98	0.13	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Vanadium	11.9	0.98	0.13	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Zinc	37.0	2.0	0.16	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴

(1) Instrument QC Batch: MA15630

(2) Instrument QC Batch: MA15650

(3) Prep QC Batch: MP21013

(4) Prep QC Batch: MP21026

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	TP-4 2-4'	Date Sampled:	05/16/13
Lab Sample ID:	MC21006-5	Date Received:	05/18/13
Matrix:	SO - Soil	Percent Solids:	81.9
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	F64790.D	1	06/04/13	KR	05/28/13	OP33368	MSF3010

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

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	300	110	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	600	110	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	600	110	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	600	100	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1200	150	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	600	97	ug/kg	
95-48-7	2-Methylphenol	ND	600	98	ug/kg	
	3&4-Methylphenol	ND	600	200	ug/kg	
88-75-5	2-Nitrophenol	ND	600	120	ug/kg	
100-02-7	4-Nitrophenol	ND	1200	210	ug/kg	
87-86-5	Pentachlorophenol	ND	600	120	ug/kg	
108-95-2	Phenol	ND	300	70	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	600	95	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	600	76	ug/kg	
83-32-9	Acenaphthene	112	120	46	ug/kg	J
208-96-8	Acenaphthylene	101	120	33	ug/kg	J
120-12-7	Anthracene	366	120	41	ug/kg	
56-55-3	Benzo(a)anthracene	1280	120	46	ug/kg	
50-32-8	Benzo(a)pyrene	1120	120	28	ug/kg	
205-99-2	Benzo(b)fluoranthene	968	120	28	ug/kg	
191-24-2	Benzo(g,h,i)perylene	749	120	53	ug/kg	
207-08-9	Benzo(k)fluoranthene	1020	120	67	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	300	38	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	300	43	ug/kg	
91-58-7	2-Chloronaphthalene	ND	300	49	ug/kg	
106-47-8	4-Chloroaniline	ND	600	52	ug/kg	
86-74-8	Carbazole	161	120	50	ug/kg	
218-01-9	Chrysene	1250	120	48	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	300	56	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	300	61	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	300	83	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	300	49	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: TP-4 2-4'		Date Sampled: 05/16/13
Lab Sample ID: MC21006-5		Date Received: 05/18/13
Matrix: SO - Soil		Percent Solids: 81.9
Method: SW846 8270C SW846 3546		
Project: Auburn EPA Brownfield Phase II, Auburn, NY		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	300	61	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	300	62	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	300	61	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	600	46	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	600	30	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	300	30	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	241	120	48	ug/kg	
132-64-9	Dibenzofuran	87.3	120	57	ug/kg	J
84-74-2	Di-n-butyl phthalate	ND	300	34	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	300	32	ug/kg	
84-66-2	Diethyl phthalate	ND	300	43	ug/kg	
131-11-3	Dimethyl phthalate	ND	300	49	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	193	300	53	ug/kg	J
206-44-0	Fluoranthene	2710	120	36	ug/kg	
86-73-7	Fluorene	132	120	42	ug/kg	
118-74-1	Hexachlorobenzene	ND	300	52	ug/kg	
87-68-3	Hexachlorobutadiene	ND	300	63	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	600	150	ug/kg	
67-72-1	Hexachloroethane	ND	300	79	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	669	120	38	ug/kg	
78-59-1	Isophorone	ND	300	49	ug/kg	
91-57-6	2-Methylnaphthalene	ND	120	61	ug/kg	
88-74-4	2-Nitroaniline	ND	600	43	ug/kg	
99-09-2	3-Nitroaniline	ND	600	66	ug/kg	
100-01-6	4-Nitroaniline	ND	600	59	ug/kg	
91-20-3	Naphthalene	99.7	120	46	ug/kg	J
98-95-3	Nitrobenzene	ND	300	57	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	300	73	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	300	34	ug/kg	
85-01-8	Phenanthrene	1690	120	36	ug/kg	
129-00-0	Pyrene	2400	120	36	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	300	57	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	60%		30-130%
4165-62-2	Phenol-d5	62%		30-130%
118-79-6	2,4,6-Tribromophenol	78%		30-130%
4165-60-0	Nitrobenzene-d5	67%		30-130%
321-60-8	2-Fluorobiphenyl	70%		30-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID: TP-4 2-4'		Date Sampled: 05/16/13
Lab Sample ID: MC21006-5		Date Received: 05/18/13
Matrix: SO - Soil		Percent Solids: 81.9
Method: SW846 8270C SW846 3546		
Project: Auburn EPA Brownfield Phase II, Auburn, NY		

ABN TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	81%		30-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.5
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Report of Analysis

Client Sample ID:	TP-4 2-4'	Date Sampled:	05/16/13
Lab Sample ID:	MC21006-5	Date Received:	05/18/13
Matrix:	SO - Soil	Percent Solids:	81.9
Method:	SW846 8082 SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK25580.D	1	06/05/13	NK	05/29/13	OP33385	GBK882
Run #2							

Run #	Initial Weight	Final Volume
Run #1	20.4 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	30	14	ug/kg	
11104-28-2	Aroclor 1221	ND	30	18	ug/kg	
11141-16-5	Aroclor 1232	ND	30	14	ug/kg	
53469-21-9	Aroclor 1242	ND	30	15	ug/kg	
12672-29-6	Aroclor 1248	ND	30	13	ug/kg	
11097-69-1	Aroclor 1254	50.4	30	22	ug/kg	
11096-82-5	Aroclor 1260 ^a	16.8	30	15	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	86%		30-150%
877-09-8	Tetrachloro-m-xylene	78%		30-150%
2051-24-3	Decachlorobiphenyl	81%		30-150%
2051-24-3	Decachlorobiphenyl	90%		30-150%

(a) Estimated value due to the presence of other Arochlor pattern.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID: TP-4 2-4'	Date Sampled: 05/16/13
Lab Sample ID: MC21006-5	Date Received: 05/18/13
Matrix: SO - Soil	Percent Solids: 81.9
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	5680	20	3.6	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Antimony	0.44 B	1.0	0.15	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Arsenic	7.7	1.0	0.21	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Barium	694	5.0	0.073	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Beryllium	0.31 B	0.40	0.024	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Cadmium	0.74	0.40	0.042	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Calcium	87000	2500	31	mg/kg	5	05/22/13	05/24/13	EAL SW846 6010C ³	SW846 3050B ⁵
Chromium	20.1	1.0	0.095	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Cobalt	6.5	5.0	0.047	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Copper	136	2.5	0.56	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Iron	19800	10	0.87	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Lead	185	1.0	0.17	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Magnesium	10300	500	5.1	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Manganese	311	1.5	0.040	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Mercury	0.68	0.039	0.011	mg/kg	1	05/21/13	05/22/13	SA SW846 7471B ¹	SW846 7471B ⁴
Nickel	13.2	4.0	0.044	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Potassium	1070	500	8.6	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Selenium	0.35 U	1.0	0.35	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Silver	0.48 B	0.50	0.13	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Sodium	269 B	500	3.3	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Thallium	0.13 U	1.0	0.13	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Vanadium	20.7	1.0	0.13	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Zinc	615	2.0	0.16	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵

- (1) Instrument QC Batch: MA15630
- (2) Instrument QC Batch: MA15650
- (3) Instrument QC Batch: MA15657
- (4) Prep QC Batch: MP21013
- (5) Prep QC Batch: MP21026

RL = Reporting Limit
 MDL = Method Detection Limit

U = Indicates a result < MDL
 B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	TP-4 6-6.5'	Date Sampled:	05/16/13
Lab Sample ID:	MC21006-6	Date Received:	05/18/13
Matrix:	SO - Soil	Percent Solids:	84.8
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	F64804.D	1	06/04/13	KR	05/30/13	OP33399	MSF3013

Run #1	Initial Weight	Final Volume
Run #2	20.6 g	1.0 ml

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	290	110	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	570	110	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	570	110	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	570	100	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	570	93	ug/kg	
95-48-7	2-Methylphenol	ND	570	95	ug/kg	
	3&4-Methylphenol	ND	570	190	ug/kg	
88-75-5	2-Nitrophenol	ND	570	110	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	200	ug/kg	
87-86-5	Pentachlorophenol	ND	570	110	ug/kg	
108-95-2	Phenol	ND	290	68	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	570	91	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	570	73	ug/kg	
83-32-9	Acenaphthene	ND	110	44	ug/kg	
208-96-8	Acenaphthylene	ND	110	32	ug/kg	
120-12-7	Anthracene	ND	110	39	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	44	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	26	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	27	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	51	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	64	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	290	37	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	290	41	ug/kg	
91-58-7	2-Chloronaphthalene	ND	290	47	ug/kg	
106-47-8	4-Chloroaniline	ND	570	50	ug/kg	
86-74-8	Carbazole	ND	110	48	ug/kg	
218-01-9	Chrysene	ND	110	46	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	290	54	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	290	59	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	290	80	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	290	47	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-4 6-6.5'	Date Sampled:	05/16/13
Lab Sample ID:	MC21006-6	Date Received:	05/18/13
Matrix:	SO - Soil	Percent Solids:	84.8
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	290	59	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	290	60	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	290	59	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	570	44	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	570	29	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	290	29	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	46	ug/kg	
132-64-9	Dibenzofuran	ND	110	55	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	290	33	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	290	31	ug/kg	
84-66-2	Diethyl phthalate	ND	290	42	ug/kg	
131-11-3	Dimethyl phthalate	ND	290	47	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	290	51	ug/kg	
206-44-0	Fluoranthene	ND	110	35	ug/kg	
86-73-7	Fluorene	ND	110	40	ug/kg	
118-74-1	Hexachlorobenzene	ND	290	50	ug/kg	
87-68-3	Hexachlorobutadiene	ND	290	61	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	570	140	ug/kg	
67-72-1	Hexachloroethane	ND	290	76	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	36	ug/kg	
78-59-1	Isophorone	ND	290	47	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	59	ug/kg	
88-74-4	2-Nitroaniline	ND	570	42	ug/kg	
99-09-2	3-Nitroaniline	ND	570	63	ug/kg	
100-01-6	4-Nitroaniline	ND	570	57	ug/kg	
91-20-3	Naphthalene	ND	110	44	ug/kg	
98-95-3	Nitrobenzene	ND	290	55	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	290	70	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	290	33	ug/kg	
85-01-8	Phenanthrene	ND	110	34	ug/kg	
129-00-0	Pyrene	ND	110	35	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	290	55	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	69%		30-130%
4165-62-2	Phenol-d5	70%		30-130%
118-79-6	2,4,6-Tribromophenol	74%		30-130%
4165-60-0	Nitrobenzene-d5	74%		30-130%
321-60-8	2-Fluorobiphenyl	72%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: TP-4 6-6.5' Lab Sample ID: MC21006-6 Matrix: SO - Soil Method: SW846 8270C SW846 3546 Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 05/16/13 Date Received: 05/18/13 Percent Solids: 84.8
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ABN TCL List

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

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.6
4

Report of Analysis

Client Sample ID: TP-4 6-6.5' Lab Sample ID: MC21006-6 Matrix: SO - Soil Method: SW846 8082 SW846 3546 Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 05/16/13 Date Received: 05/18/13 Percent Solids: 84.8
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK25574.D	1	06/05/13	NK	05/30/13	OP33402	GBK882
Run #2							

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

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	38	17	ug/kg	
11104-28-2	Aroclor 1221	ND	38	23	ug/kg	
11141-16-5	Aroclor 1232	ND	38	18	ug/kg	
53469-21-9	Aroclor 1242	ND	38	19	ug/kg	
12672-29-6	Aroclor 1248	ND	38	17	ug/kg	
11097-69-1	Aroclor 1254	ND	38	28	ug/kg	
11096-82-5	Aroclor 1260	ND	38	19	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	70%		30-150%
877-09-8	Tetrachloro-m-xylene	74%		30-150%
2051-24-3	Decachlorobiphenyl	66%		30-150%
2051-24-3	Decachlorobiphenyl	77%		30-150%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.6
4

Report of Analysis

Client Sample ID:	TP-4 6-6.5'	Date Sampled:	05/16/13
Lab Sample ID:	MC21006-6	Date Received:	05/18/13
Matrix:	SO - Soil	Percent Solids:	84.8
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	6380	20	3.5	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Antimony	0.15 U	0.98	0.15	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Arsenic	7.0	0.98	0.20	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Barium	53.9	4.9	0.071	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Beryllium	0.45	0.39	0.023	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Cadmium	1.1	0.39	0.042	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Calcium	14500	490	6.2	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Chromium	9.5	0.98	0.093	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Cobalt	6.6	4.9	0.046	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Copper	23.0	2.5	0.55	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Iron	12800	9.8	0.85	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Lead	16.5	0.98	0.17	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Magnesium	2680	490	5.0	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Manganese	457	1.5	0.039	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Mercury	0.052	0.035	0.010	mg/kg	1	05/23/13	05/24/13 SA	SW846 7471B ¹	SW846 7471B ³
Nickel	16.7	3.9	0.043	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Potassium	909	490	8.4	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Selenium	0.70 B	0.98	0.34	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Silver	0.12 U	0.49	0.12	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Sodium	36.3 B	490	3.3	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Thallium	0.13 U	0.98	0.13	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Vanadium	14.2	0.98	0.13	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Zinc	251	2.0	0.16	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴

(1) Instrument QC Batch: MA15637

(2) Instrument QC Batch: MA15650

(3) Prep QC Batch: MP21020

(4) Prep QC Batch: MP21026

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	TP-5 2-4'	Date Sampled:	05/16/13
Lab Sample ID:	MC21006-7	Date Received:	05/18/13
Matrix:	SO - Soil	Percent Solids:	83.4
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	F64805.D	1	06/04/13	KR	05/30/13	OP33399	MSF3013

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

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	300	110	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	590	110	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	590	110	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	590	100	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1200	150	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	590	96	ug/kg	
95-48-7	2-Methylphenol	ND	590	98	ug/kg	
	3&4-Methylphenol	ND	590	200	ug/kg	
88-75-5	2-Nitrophenol	ND	590	120	ug/kg	
100-02-7	4-Nitrophenol	ND	1200	210	ug/kg	
87-86-5	Pentachlorophenol	ND	590	120	ug/kg	
108-95-2	Phenol	ND	300	70	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	590	94	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	590	75	ug/kg	
83-32-9	Acenaphthene	538	120	45	ug/kg	
208-96-8	Acenaphthylene	ND	120	33	ug/kg	
120-12-7	Anthracene	1130	120	40	ug/kg	
56-55-3	Benzo(a)anthracene	2420	120	45	ug/kg	
50-32-8	Benzo(a)pyrene	1940	120	27	ug/kg	
205-99-2	Benzo(b)fluoranthene	1750	120	28	ug/kg	
191-24-2	Benzo(g,h,i)perylene	1020	120	53	ug/kg	
207-08-9	Benzo(k)fluoranthene	1590	120	66	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	300	38	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	300	43	ug/kg	
91-58-7	2-Chloronaphthalene	ND	300	49	ug/kg	
106-47-8	4-Chloroaniline	ND	590	52	ug/kg	
86-74-8	Carbazole	588	120	49	ug/kg	
218-01-9	Chrysene	2020	120	48	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	300	56	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	300	61	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	300	82	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	300	48	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-5 2-4'	Date Sampled:	05/16/13
Lab Sample ID:	MC21006-7	Date Received:	05/18/13
Matrix:	SO - Soil	Percent Solids:	83.4
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	300	61	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	300	62	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	300	61	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	590	46	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	590	30	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	300	30	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	445	120	48	ug/kg	
132-64-9	Dibenzofuran	397	120	57	ug/kg	
84-74-2	Di-n-butyl phthalate	61.5	300	34	ug/kg	J
117-84-0	Di-n-octyl phthalate	ND	300	32	ug/kg	
84-66-2	Diethyl phthalate	ND	300	43	ug/kg	
131-11-3	Dimethyl phthalate	ND	300	49	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	300	52	ug/kg	
206-44-0	Fluoranthene	4700	120	36	ug/kg	
86-73-7	Fluorene	597	120	42	ug/kg	
118-74-1	Hexachlorobenzene	ND	300	51	ug/kg	
87-68-3	Hexachlorobutadiene	ND	300	63	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	590	150	ug/kg	
67-72-1	Hexachloroethane	ND	300	78	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	1030	120	37	ug/kg	
78-59-1	Isophorone	ND	300	48	ug/kg	
91-57-6	2-Methylnaphthalene	244	120	61	ug/kg	
88-74-4	2-Nitroaniline	ND	590	43	ug/kg	
99-09-2	3-Nitroaniline	ND	590	65	ug/kg	
100-01-6	4-Nitroaniline	ND	590	59	ug/kg	
91-20-3	Naphthalene	664	120	46	ug/kg	
98-95-3	Nitrobenzene	ND	300	57	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	300	73	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	300	34	ug/kg	
85-01-8	Phenanthrene	3840	120	36	ug/kg	
129-00-0	Pyrene	3540	120	36	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	300	57	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	67%		30-130%
4165-62-2	Phenol-d5	67%		30-130%
118-79-6	2,4,6-Tribromophenol	70%		30-130%
4165-60-0	Nitrobenzene-d5	71%		30-130%
321-60-8	2-Fluorobiphenyl	70%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: TP-5 2-4'		Date Sampled: 05/16/13
Lab Sample ID: MC21006-7		Date Received: 05/18/13
Matrix: SO - Soil		Percent Solids: 83.4
Method: SW846 8270C SW846 3546		
Project: Auburn EPA Brownfield Phase II, Auburn, NY		

ABN TCL List

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

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.7
4

Report of Analysis

Client Sample ID:	TP-5 2-4'	Date Sampled:	05/16/13
Lab Sample ID:	MC21006-7	Date Received:	05/18/13
Matrix:	SO - Soil	Percent Solids:	83.4
Method:	SW846 8082 SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK25565.D	1	06/05/13	NK	05/30/13	OP33402	GBK882
Run #2							

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

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	39	18	ug/kg	
11104-28-2	Aroclor 1221	ND	39	23	ug/kg	
11141-16-5	Aroclor 1232	ND	39	18	ug/kg	
53469-21-9	Aroclor 1242	ND	39	19	ug/kg	
12672-29-6	Aroclor 1248	ND	39	17	ug/kg	
11097-69-1	Aroclor 1254	ND	39	28	ug/kg	
11096-82-5	Aroclor 1260	ND	39	20	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	82%		30-150%
877-09-8	Tetrachloro-m-xylene	79%		30-150%
2051-24-3	Decachlorobiphenyl	80%		30-150%
2051-24-3	Decachlorobiphenyl	94%		30-150%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: TP-5 2-4'	Date Sampled: 05/16/13
Lab Sample ID: MC21006-7	Date Received: 05/18/13
Matrix: SO - Soil	Percent Solids: 83.4
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	7630	20	3.6	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Antimony	0.15 U	1.0	0.15	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Arsenic	4.9	1.0	0.21	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Barium	1040	5.0	0.073	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Beryllium	0.33 B	0.40	0.024	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Cadmium	0.55	0.40	0.043	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Calcium	122000	2500	32	mg/kg	5	05/22/13	05/24/13	EAL SW846 6010C ³	SW846 3050B ⁵
Chromium	20.0	1.0	0.096	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Cobalt	8.0	5.0	0.047	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Copper	53.0	2.5	0.56	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Iron	11800	10	0.88	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Lead	534	1.0	0.17	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Magnesium	15300	500	5.2	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Manganese	313	1.5	0.040	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Mercury	0.041	0.037	0.011	mg/kg	1	05/21/13	05/22/13	SA SW846 7471B ¹	SW846 7471B ⁴
Nickel	15.3	4.0	0.044	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Potassium	1780	500	8.6	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Selenium	0.48 B	1.0	0.35	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Silver	0.13 U	0.50	0.13	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Sodium	424 B	500	3.3	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Thallium	0.13 U	1.0	0.13	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Vanadium	29.0	1.0	0.13	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Zinc	559	2.0	0.16	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵

- (1) Instrument QC Batch: MA15630
- (2) Instrument QC Batch: MA15650
- (3) Instrument QC Batch: MA15657
- (4) Prep QC Batch: MP21013
- (5) Prep QC Batch: MP21026

RL = Reporting Limit
 MDL = Method Detection Limit

U = Indicates a result < MDL
 B = Indicates a result > = MDL but < RL

4.7
 4

Report of Analysis

Client Sample ID:	TP-6 4-6'	Date Sampled:	05/16/13
Lab Sample ID:	MC21006-8	Date Received:	05/18/13
Matrix:	SO - Soil	Percent Solids:	83.1
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	F64806.D	1	06/04/13	KR	05/30/13	OP33399	MSF3013

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

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	300	110	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	590	110	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	590	110	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	590	100	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1200	150	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	590	97	ug/kg	
95-48-7	2-Methylphenol	ND	590	98	ug/kg	
	3&4-Methylphenol	ND	590	200	ug/kg	
88-75-5	2-Nitrophenol	ND	590	120	ug/kg	
100-02-7	4-Nitrophenol	ND	1200	210	ug/kg	
87-86-5	Pentachlorophenol	ND	590	120	ug/kg	
108-95-2	Phenol	ND	300	70	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	590	94	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	590	76	ug/kg	
83-32-9	Acenaphthene	ND	120	46	ug/kg	
208-96-8	Acenaphthylene	82.9	120	33	ug/kg	J
120-12-7	Anthracene	75.0	120	41	ug/kg	J
56-55-3	Benzo(a)anthracene	492	120	46	ug/kg	
50-32-8	Benzo(a)pyrene	463	120	27	ug/kg	
205-99-2	Benzo(b)fluoranthene	450	120	28	ug/kg	
191-24-2	Benzo(g,h,i)perylene	374	120	53	ug/kg	
207-08-9	Benzo(k)fluoranthene	425	120	66	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	300	38	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	300	43	ug/kg	
91-58-7	2-Chloronaphthalene	ND	300	49	ug/kg	
106-47-8	4-Chloroaniline	ND	590	52	ug/kg	
86-74-8	Carbazole	ND	120	49	ug/kg	
218-01-9	Chrysene	569	120	48	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	300	56	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	300	61	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	300	83	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	300	49	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: TP-6 4-6'		Date Sampled: 05/16/13
Lab Sample ID: MC21006-8		Date Received: 05/18/13
Matrix: SO - Soil		Percent Solids: 83.1
Method: SW846 8270C SW846 3546		
Project: Auburn EPA Brownfield Phase II, Auburn, NY		

ABN TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	66%		30-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.8
4

Report of Analysis

Client Sample ID: TP-6 4-6' Lab Sample ID: MC21006-8 Matrix: SO - Soil Method: SW846 8082 SW846 3546 Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 05/16/13 Date Received: 05/18/13 Percent Solids: 83.1
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK25566.D	1	06/05/13	NK	05/30/13	OP33402	GBK882
Run #2							

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

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	39	18	ug/kg	
11104-28-2	Aroclor 1221	ND	39	23	ug/kg	
11141-16-5	Aroclor 1232	ND	39	18	ug/kg	
53469-21-9	Aroclor 1242	ND	39	19	ug/kg	
12672-29-6	Aroclor 1248	ND	39	17	ug/kg	
11097-69-1	Aroclor 1254	ND	39	28	ug/kg	
11096-82-5	Aroclor 1260	ND	39	20	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	68%		30-150%
877-09-8	Tetrachloro-m-xylene	77%		30-150%
2051-24-3	Decachlorobiphenyl	71%		30-150%
2051-24-3	Decachlorobiphenyl	80%		30-150%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.8

Report of Analysis

Client Sample ID:	TP-6 4-6'	Date Sampled:	05/16/13
Lab Sample ID:	MC21006-8	Date Received:	05/18/13
Matrix:	SO - Soil	Percent Solids:	83.1
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	3590	20	3.6	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Antimony	1.5	0.99	0.15	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Arsenic	16.0	0.99	0.21	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Barium	349	5.0	0.072	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Beryllium	0.50	0.40	0.024	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Cadmium	1.3	0.40	0.042	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Calcium	39800	500	6.2	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Chromium	27.4	0.99	0.094	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Cobalt	8.4	5.0	0.047	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Copper	353	2.5	0.55	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Iron	15000	9.9	0.87	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Lead	221	0.99	0.17	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Magnesium	6700	500	5.1	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Manganese	228	1.5	0.040	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Mercury	0.58	0.038	0.011	mg/kg	1	05/21/13	05/22/13 SA	SW846 7471B ¹	SW846 7471B ³
Nickel	34.7	4.0	0.044	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Potassium	565	500	8.5	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Selenium	1.1	0.99	0.35	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Silver	0.98	0.50	0.12	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Sodium	131 B	500	3.3	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Thallium	0.13 U	0.99	0.13	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Vanadium	12.6	0.99	0.13	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Zinc	623	2.0	0.16	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴

(1) Instrument QC Batch: MA15630

(2) Instrument QC Batch: MA15650

(3) Prep QC Batch: MP21013

(4) Prep QC Batch: MP21026

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	TP-7 1-3'	Date Sampled:	05/16/13
Lab Sample ID:	MC21006-9	Date Received:	05/18/13
Matrix:	SO - Soil	Percent Solids:	94.1
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	F64807.D	1	06/04/13	KR	05/30/13	OP33399	MSF3013

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

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	260	97	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	520	98	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	520	97	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	520	91	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1000	130	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	520	85	ug/kg	
95-48-7	2-Methylphenol	ND	520	87	ug/kg	
	3&4-Methylphenol	ND	520	180	ug/kg	
88-75-5	2-Nitrophenol	ND	520	100	ug/kg	
100-02-7	4-Nitrophenol	ND	1000	190	ug/kg	
87-86-5	Pentachlorophenol	ND	520	100	ug/kg	
108-95-2	Phenol	ND	260	62	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	520	83	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	520	67	ug/kg	
83-32-9	Acenaphthene	ND	100	40	ug/kg	
208-96-8	Acenaphthylene	39.1	100	29	ug/kg	J
120-12-7	Anthracene	168	100	36	ug/kg	
56-55-3	Benzo(a)anthracene	901	100	40	ug/kg	
50-32-8	Benzo(a)pyrene	729	100	24	ug/kg	
205-99-2	Benzo(b)fluoranthene	653	100	25	ug/kg	
191-24-2	Benzo(g,h,i)perylene	382	100	47	ug/kg	
207-08-9	Benzo(k)fluoranthene	584	100	58	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	260	34	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	260	38	ug/kg	
91-58-7	2-Chloronaphthalene	ND	260	43	ug/kg	
106-47-8	4-Chloroaniline	ND	520	46	ug/kg	
86-74-8	Carbazole	ND	100	44	ug/kg	
218-01-9	Chrysene	774	100	42	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	260	49	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	260	54	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	260	73	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	260	43	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-7 1-3'	Date Sampled:	05/16/13
Lab Sample ID:	MC21006-9	Date Received:	05/18/13
Matrix:	SO - Soil	Percent Solids:	94.1
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	260	54	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	260	55	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	260	54	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	520	40	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	520	26	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	260	26	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	149	100	42	ug/kg	
132-64-9	Dibenzofuran	ND	100	51	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	260	30	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	260	28	ug/kg	
84-66-2	Diethyl phthalate	ND	260	38	ug/kg	
131-11-3	Dimethyl phthalate	ND	260	43	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	260	46	ug/kg	
206-44-0	Fluoranthene	1250	100	32	ug/kg	
86-73-7	Fluorene	ND	100	37	ug/kg	
118-74-1	Hexachlorobenzene	ND	260	46	ug/kg	
87-68-3	Hexachlorobutadiene	ND	260	56	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	520	130	ug/kg	
67-72-1	Hexachloroethane	ND	260	69	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	359	100	33	ug/kg	
78-59-1	Isophorone	ND	260	43	ug/kg	
91-57-6	2-Methylnaphthalene	ND	100	54	ug/kg	
88-74-4	2-Nitroaniline	ND	520	38	ug/kg	
99-09-2	3-Nitroaniline	ND	520	58	ug/kg	
100-01-6	4-Nitroaniline	ND	520	52	ug/kg	
91-20-3	Naphthalene	ND	100	40	ug/kg	
98-95-3	Nitrobenzene	ND	260	50	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	260	64	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	260	30	ug/kg	
85-01-8	Phenanthrene	453	100	31	ug/kg	
129-00-0	Pyrene	1050	100	32	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	260	51	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	66%		30-130%
4165-62-2	Phenol-d5	65%		30-130%
118-79-6	2,4,6-Tribromophenol	73%		30-130%
4165-60-0	Nitrobenzene-d5	73%		30-130%
321-60-8	2-Fluorobiphenyl	68%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: TP-7 1-3'		Date Sampled: 05/16/13
Lab Sample ID: MC21006-9		Date Received: 05/18/13
Matrix: SO - Soil		Percent Solids: 94.1
Method: SW846 8270C SW846 3546		
Project: Auburn EPA Brownfield Phase II, Auburn, NY		

ABN TCL List

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

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.9
4

Report of Analysis

Client Sample ID:	TP-7 1-3'	Date Sampled:	05/16/13
Lab Sample ID:	MC21006-9	Date Received:	05/18/13
Matrix:	SO - Soil	Percent Solids:	94.1
Method:	SW846 8082 SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK25567.D	1	06/05/13	NK	05/30/13	OP33402	GBK882
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	35	16	ug/kg	
11104-28-2	Aroclor 1221	ND	35	21	ug/kg	
11141-16-5	Aroclor 1232	ND	35	16	ug/kg	
53469-21-9	Aroclor 1242	ND	35	17	ug/kg	
12672-29-6	Aroclor 1248	ND	35	15	ug/kg	
11097-69-1	Aroclor 1254	ND	35	25	ug/kg	
11096-82-5	Aroclor 1260	ND	35	18	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	76%		30-150%
877-09-8	Tetrachloro-m-xylene	84%		30-150%
2051-24-3	Decachlorobiphenyl	77%		30-150%
2051-24-3	Decachlorobiphenyl	96%		30-150%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: TP-7 1-3' Lab Sample ID: MC21006-9 Matrix: SO - Soil Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 05/16/13 Date Received: 05/18/13 Percent Solids: 94.1
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Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	2980	20	3.6	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ¹	SW846 3050B ³
Antimony	0.15 U	1.0	0.15	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ¹	SW846 3050B ³
Arsenic	4.2	1.0	0.21	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ¹	SW846 3050B ³
Barium	38.6	5.1	0.073	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ¹	SW846 3050B ³
Beryllium	0.15 B	0.40	0.024	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ¹	SW846 3050B ³
Cadmium	0.081 B	0.40	0.043	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ¹	SW846 3050B ³
Calcium	56700	510	6.4	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ¹	SW846 3050B ³
Chromium	5.7	1.0	0.096	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ¹	SW846 3050B ³
Cobalt	7.2	5.1	0.048	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ¹	SW846 3050B ³
Copper	38.8	2.5	0.56	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ¹	SW846 3050B ³
Iron	10300	10	0.88	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ¹	SW846 3050B ³
Lead	57.2	1.0	0.17	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ¹	SW846 3050B ³
Magnesium	13900	510	5.2	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ¹	SW846 3050B ³
Manganese	484	1.5	0.040	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ¹	SW846 3050B ³
Mercury	0.15	0.034	0.0098	mg/kg	1	05/31/13	06/03/13	EAL SW846 7471B ²	SW846 7471B ⁴
Nickel	10.5	4.0	0.044	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ¹	SW846 3050B ³
Potassium	426 B	510	8.7	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ¹	SW846 3050B ³
Selenium	0.49 B	1.0	0.35	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ¹	SW846 3050B ³
Silver	0.13 U	0.51	0.13	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ¹	SW846 3050B ³
Sodium	56.4 B	510	3.4	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ¹	SW846 3050B ³
Thallium	0.13 U	1.0	0.13	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ¹	SW846 3050B ³
Vanadium	6.7	1.0	0.13	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ¹	SW846 3050B ³
Zinc	55.2	2.0	0.16	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ¹	SW846 3050B ³

- (1) Instrument QC Batch: MA15650
- (2) Instrument QC Batch: MA15676
- (3) Prep QC Batch: MP21026
- (4) Prep QC Batch: MP21081

RL = Reporting Limit
 MDL = Method Detection Limit

U = Indicates a result < MDL
 B = Indicates a result > = MDL but < RL

4.9
4

Report of Analysis

Client Sample ID:	TP-X	Date Sampled:	05/16/13
Lab Sample ID:	MC21006-10	Date Received:	05/18/13
Matrix:	SO - Soil	Percent Solids:	93.5
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F64808.D	1	06/04/13	KR	05/30/13	OP33399	MSF3013
Run #2							

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

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	260	95	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	520	96	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	520	95	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	520	90	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1000	130	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	520	84	ug/kg	
95-48-7	2-Methylphenol	ND	520	85	ug/kg	
	3&4-Methylphenol	ND	520	170	ug/kg	
88-75-5	2-Nitrophenol	ND	520	100	ug/kg	
100-02-7	4-Nitrophenol	ND	1000	180	ug/kg	
87-86-5	Pentachlorophenol	ND	520	100	ug/kg	
108-95-2	Phenol	ND	260	61	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	520	82	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	520	66	ug/kg	
83-32-9	Acenaphthene	ND	100	40	ug/kg	
208-96-8	Acenaphthylene	ND	100	29	ug/kg	
120-12-7	Anthracene	61.9	100	35	ug/kg	J
56-55-3	Benzo(a)anthracene	355	100	40	ug/kg	
50-32-8	Benzo(a)pyrene	314	100	24	ug/kg	
205-99-2	Benzo(b)fluoranthene	323	100	24	ug/kg	
191-24-2	Benzo(g,h,i)perylene	182	100	46	ug/kg	
207-08-9	Benzo(k)fluoranthene	223	100	58	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	260	33	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	260	37	ug/kg	
91-58-7	2-Chloronaphthalene	ND	260	43	ug/kg	
106-47-8	4-Chloroaniline	ND	520	45	ug/kg	
86-74-8	Carbazole	ND	100	43	ug/kg	
218-01-9	Chrysene	333	100	42	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	260	48	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	260	53	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	260	72	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	260	42	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-X	Date Sampled:	05/16/13
Lab Sample ID:	MC21006-10	Date Received:	05/18/13
Matrix:	SO - Soil	Percent Solids:	93.5
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	260	53	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	260	54	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	260	53	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	520	40	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	520	26	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	260	26	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	71.0	100	42	ug/kg	J
132-64-9	Dibenzofuran	ND	100	50	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	260	29	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	260	28	ug/kg	
84-66-2	Diethyl phthalate	ND	260	37	ug/kg	
131-11-3	Dimethyl phthalate	ND	260	42	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	260	46	ug/kg	
206-44-0	Fluoranthene	485	100	31	ug/kg	
86-73-7	Fluorene	ND	100	36	ug/kg	
118-74-1	Hexachlorobenzene	ND	260	45	ug/kg	
87-68-3	Hexachlorobutadiene	ND	260	55	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	520	130	ug/kg	
67-72-1	Hexachloroethane	ND	260	68	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	171	100	33	ug/kg	
78-59-1	Isophorone	ND	260	42	ug/kg	
91-57-6	2-Methylnaphthalene	ND	100	53	ug/kg	
88-74-4	2-Nitroaniline	ND	520	38	ug/kg	
99-09-2	3-Nitroaniline	ND	520	57	ug/kg	
100-01-6	4-Nitroaniline	ND	520	51	ug/kg	
91-20-3	Naphthalene	ND	100	40	ug/kg	
98-95-3	Nitrobenzene	ND	260	50	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	260	63	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	260	30	ug/kg	
85-01-8	Phenanthrene	177	100	31	ug/kg	
129-00-0	Pyrene	398	100	31	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	260	50	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	60%		30-130%
4165-62-2	Phenol-d5	61%		30-130%
118-79-6	2,4,6-Tribromophenol	64%		30-130%
4165-60-0	Nitrobenzene-d5	66%		30-130%
321-60-8	2-Fluorobiphenyl	64%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: TP-X		Date Sampled: 05/16/13
Lab Sample ID: MC21006-10		Date Received: 05/18/13
Matrix: SO - Soil		Percent Solids: 93.5
Method: SW846 8270C SW846 3546		
Project: Auburn EPA Brownfield Phase II, Auburn, NY		

4.10
4

ABN TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	66%		30-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID: TP-X Lab Sample ID: MC21006-10 Matrix: SO - Soil Method: SW846 8082 SW846 3546 Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 05/16/13 Date Received: 05/18/13 Percent Solids: 93.5
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK25568.D	1	06/05/13	NK	05/30/13	OP33402	GBK882
Run #2							

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

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	34	15	ug/kg	
11104-28-2	Aroclor 1221	ND	34	20	ug/kg	
11141-16-5	Aroclor 1232	ND	34	16	ug/kg	
53469-21-9	Aroclor 1242	ND	34	17	ug/kg	
12672-29-6	Aroclor 1248	ND	34	15	ug/kg	
11097-69-1	Aroclor 1254	ND	34	25	ug/kg	
11096-82-5	Aroclor 1260	ND	34	17	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	78%		30-150%
877-09-8	Tetrachloro-m-xylene	70%		30-150%
2051-24-3	Decachlorobiphenyl	65%		30-150%
2051-24-3	Decachlorobiphenyl	69%		30-150%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.10
4

Report of Analysis

Client Sample ID: TP-X	Date Sampled: 05/16/13
Lab Sample ID: MC21006-10	Date Received: 05/18/13
Matrix: SO - Soil	Percent Solids: 93.5
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	2770	20	3.6	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Antimony	0.15 U	1.0	0.15	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Arsenic	3.5	1.0	0.21	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Barium	26.5	5.0	0.073	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Beryllium	0.14 B	0.40	0.024	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Cadmium	0.080 B	0.40	0.042	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Calcium	80400	2500	31	mg/kg	5	05/22/13	05/24/13	EAL SW846 6010C ³	SW846 3050B ⁵
Chromium	6.6	1.0	0.095	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Cobalt	6.7	5.0	0.047	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Copper	34.9	2.5	0.55	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Iron	11800	10	0.87	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Lead	193	1.0	0.17	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Magnesium	13900	500	5.1	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Manganese	340	1.5	0.040	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Mercury	0.044	0.033	0.0095	mg/kg	1	05/23/13	05/24/13	SA SW846 7471B ¹	SW846 7471B ⁴
Nickel	9.9	4.0	0.044	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Potassium	480 B	500	8.6	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Selenium	0.38 B	1.0	0.35	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Silver	0.12 U	0.50	0.12	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Sodium	61.1 B	500	3.3	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Thallium	0.13 U	1.0	0.13	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Vanadium	5.9	1.0	0.13	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵
Zinc	42.6	2.0	0.16	mg/kg	1	05/22/13	05/23/13	EAL SW846 6010C ²	SW846 3050B ⁵

- (1) Instrument QC Batch: MA15637
- (2) Instrument QC Batch: MA15650
- (3) Instrument QC Batch: MA15657
- (4) Prep QC Batch: MP21020
- (5) Prep QC Batch: MP21026

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	TP-7 5.5-6.0	Date Sampled:	05/16/13
Lab Sample ID:	MC21006-11	Date Received:	05/18/13
Matrix:	SO - Soil	Percent Solids:	75.4
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	F64809.D	1	06/04/13	KR	05/30/13	OP33399	MSF3013

Run #1	Initial Weight	Final Volume
Run #2	20.6 g	1.0 ml

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	320	120	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	650	120	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	650	120	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	650	110	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1300	160	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	650	110	ug/kg	
95-48-7	2-Methylphenol	ND	650	110	ug/kg	
	3&4-Methylphenol	ND	650	220	ug/kg	
88-75-5	2-Nitrophenol	ND	650	130	ug/kg	
100-02-7	4-Nitrophenol	ND	1300	230	ug/kg	
87-86-5	Pentachlorophenol	ND	650	130	ug/kg	
108-95-2	Phenol	ND	320	76	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	650	100	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	650	82	ug/kg	
83-32-9	Acenaphthene	ND	130	50	ug/kg	
208-96-8	Acenaphthylene	ND	130	36	ug/kg	
120-12-7	Anthracene	96.2	130	44	ug/kg	J
56-55-3	Benzo(a)anthracene	424	130	50	ug/kg	
50-32-8	Benzo(a)pyrene	347	130	30	ug/kg	
205-99-2	Benzo(b)fluoranthene	334	130	31	ug/kg	
191-24-2	Benzo(g,h,i)perylene	190	130	58	ug/kg	
207-08-9	Benzo(k)fluoranthene	267	130	72	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	320	42	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	320	47	ug/kg	
91-58-7	2-Chloronaphthalene	ND	320	53	ug/kg	
106-47-8	4-Chloroaniline	ND	650	56	ug/kg	
86-74-8	Carbazole	ND	130	54	ug/kg	
218-01-9	Chrysene	398	130	52	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	320	61	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	320	66	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	320	90	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	320	53	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TP-7 5.5-6.0	Date Sampled:	05/16/13
Lab Sample ID:	MC21006-11	Date Received:	05/18/13
Matrix:	SO - Soil	Percent Solids:	75.4
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	320	66	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	320	67	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	320	67	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	650	50	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	650	32	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	320	32	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	83.2	130	52	ug/kg	J
132-64-9	Dibenzofuran	ND	130	62	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	320	37	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	320	35	ug/kg	
84-66-2	Diethyl phthalate	ND	320	47	ug/kg	
131-11-3	Dimethyl phthalate	ND	320	53	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	128	320	57	ug/kg	J
206-44-0	Fluoranthene	685	130	39	ug/kg	
86-73-7	Fluorene	ND	130	45	ug/kg	
118-74-1	Hexachlorobenzene	ND	320	56	ug/kg	
87-68-3	Hexachlorobutadiene	ND	320	69	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	650	160	ug/kg	
67-72-1	Hexachloroethane	ND	320	86	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	184	130	41	ug/kg	
78-59-1	Isophorone	ND	320	53	ug/kg	
91-57-6	2-Methylnaphthalene	ND	130	67	ug/kg	
88-74-4	2-Nitroaniline	ND	650	47	ug/kg	
99-09-2	3-Nitroaniline	ND	650	71	ug/kg	
100-01-6	4-Nitroaniline	ND	650	64	ug/kg	
91-20-3	Naphthalene	ND	130	50	ug/kg	
98-95-3	Nitrobenzene	ND	320	62	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	320	79	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	320	37	ug/kg	
85-01-8	Phenanthrene	279	130	39	ug/kg	
129-00-0	Pyrene	559	130	39	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	320	62	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	59%		30-130%
4165-62-2	Phenol-d5	57%		30-130%
118-79-6	2,4,6-Tribromophenol	56%		30-130%
4165-60-0	Nitrobenzene-d5	66%		30-130%
321-60-8	2-Fluorobiphenyl	64%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: TP-7 5.5-6.0		Date Sampled: 05/16/13
Lab Sample ID: MC21006-11		Date Received: 05/18/13
Matrix: SO - Soil		Percent Solids: 75.4
Method: SW846 8270C SW846 3546		
Project: Auburn EPA Brownfield Phase II, Auburn, NY		

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ABN TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	58%		30-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID: TP-7 5.5-6.0 Lab Sample ID: MC21006-11 Matrix: SO - Soil Method: SW846 8082 SW846 3546 Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 05/16/13 Date Received: 05/18/13 Percent Solids: 75.4
---	--

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK25569.D	1	06/05/13	NK	05/30/13	OP33402	GBK882
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	43	20	ug/kg	
11104-28-2	Aroclor 1221	ND	43	26	ug/kg	
11141-16-5	Aroclor 1232	ND	43	20	ug/kg	
53469-21-9	Aroclor 1242	ND	43	22	ug/kg	
12672-29-6	Aroclor 1248	ND	43	19	ug/kg	
11097-69-1	Aroclor 1254	ND	43	32	ug/kg	
11096-82-5	Aroclor 1260	ND	43	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	71%		30-150%
877-09-8	Tetrachloro-m-xylene	74%		30-150%
2051-24-3	Decachlorobiphenyl	68%		30-150%
2051-24-3	Decachlorobiphenyl	79%		30-150%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.11
4

Report of Analysis

Client Sample ID:	TP-7 5.5-6.0	Date Sampled:	05/16/13
Lab Sample ID:	MC21006-11	Date Received:	05/18/13
Matrix:	SO - Soil	Percent Solids:	75.4
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	4150	20	3.6	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Antimony	0.91 B	1.0	0.15	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Arsenic	6.6	1.0	0.21	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Barium	52.0	5.0	0.072	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Beryllium	0.56	0.40	0.024	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Cadmium	0.64	0.40	0.042	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Calcium	53200	500	6.3	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Chromium	16.7	1.0	0.095	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Cobalt	10	5.0	0.047	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Copper	95.8	2.5	0.55	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Iron	15300	10	0.87	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Lead	100	1.0	0.17	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Magnesium	10400	500	5.1	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Manganese	255	1.5	0.040	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Mercury	0.72	0.034	0.010	mg/kg	1	05/23/13	05/24/13 SA	SW846 7471B ¹	SW846 7471B ³
Nickel	28.8	4.0	0.044	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Potassium	425 B	500	8.5	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Selenium	1.5	1.0	0.35	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Silver	0.15 B	0.50	0.12	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Sodium	132 B	500	3.3	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Thallium	0.13 U	1.0	0.13	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Vanadium	10.5	1.0	0.13	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Zinc	582	2.0	0.16	mg/kg	1	05/22/13	05/23/13 EAL	SW846 6010C ²	SW846 3050B ⁴

(1) Instrument QC Batch: MA15637

(2) Instrument QC Batch: MA15650

(3) Prep QC Batch: MP21020

(4) Prep QC Batch: MP21026

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Misc. Forms

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Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

Data Usability Summary Report

Auburn EPA Brownfield Phase II Auburn, New York

Samples Collected May - June 2013

September 2013

Data Usability Summary Report

**Samples Collected
May - June 2013**

**Auburn EPA Brownfield Phase II
Auburn, New York**

Prepared By:

**EnviroAnalytics
Data Management and Validation Service
2638 Sunset Avenue
Utica, New York 13502**

EXECUTIVE SUMMARY

This report addresses data quality for soil and water samples collected at the Auburn EPA Brownfield Phase III Site located in Auburn, New York. The samples were analyzed for volatile organics (VOCs), semivolatile organics (SVOCs), polychlorinated biphenyls (PCBs), and inorganics (Metals) following New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocol (ASP) methodologies. Sample collection was performed by Barton and Loguidice, P.C. of Rochester, New York. Analytical services were provided by New England Accutest Laboratories located in Marlborough, Massachusetts.

The inorganics analyses data have been determined to be usable for qualitative and quantitative purposes with qualification. Sample qualification also included the approximation of data for several analytes due to deviations from matrix spike, field duplicate, and ICP serial dilution criteria.

The volatile organics analyses data have been determined to be usable for qualitative and quantitative purposes with the exception of 1.03 percent of the data which were rejected due to deviations from continuing calibration, matrix spike, and internal standard criteria. Sample qualification also included the approximation of data for several compounds due to deviations from initial calibration, continuing calibration, matrix spike, and internal standard criteria.

The semivolatile organics analyses data were determined to be usable for qualitative and quantitative purposes with the exception of 2.18 percent of the data which were rejected due to deviations from matrix spike and surrogate recovery criteria. Sample qualification also included the approximation of data for several compounds due to deviations from initial calibration, continuing calibration, laboratory control sample, matrix spike, and surrogate criteria.

The PCBs data were determined to be usable for qualitative and quantitative purposes as presented by the laboratory.

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Appendices

Appendix A - Data Validation Checklists

SECTION 1 - INTRODUCTION

1.1 Introduction

This report addresses data quality for soil and water samples collected at the Auburn EPA Brownfield Phase III Site located in Auburn, New York. The samples were analyzed for volatile organics (VOCs), semivolatile organics (SVOCs), polychlorinated biphenyls (PCBs), and inorganics (Metals) following New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocol (ASP) methodologies. Sample collection was performed by Barton and Loguidice, P.C. of Rochester, New York. Analytical services were provided by New England Accutest Laboratories located in Marlborough, Massachusetts. The quantity and types of samples submitted for data validation are tabulated below.

Table 1: Introduction - Sample Summary Table

SDG#	Date Collected	Matrix	Sample Identification	
			Client ID	Laboratory ID
MC21006	05/16/2013	Soil/Water	TP-1 7.0'	MC21006-1
			TP-2 5-7'	MC21006-2
			TP-3 2-4'	MC21006-3
			TP-3 6.5-7.0'	MC21006-4
			TP-4 2-4'	MC21006-5
			TP-4 6-6.5'	MC21006-6
			TP-5 2-4'	MC21006-7
			TP-6 4-6'	MC21006-8
			TP-7 1-3'	MC21006-9
			TP-X	MC21006-10
			TP-7 5.5-6.0	MC21006-11
			TRIP BLANK	MC21006-12
MC21383	05/28/2013 – 05/31/2013	Soil/Water	SB-1 6-7'	MC21383-1
			SB-2 9-10.8'	MC21383-2
			SB-3 9-10'	MC21383-3
			SB-4 7-7.8'	MC21383-4
			SB-5 10-12'	MC21383-5
			SB-6 2-4'	MC21383-6
			SB-6 7-9'	MC21383-7
			DUP-1	MC21383-8
			SB-7 8.5-9.5'	MC21383-9
			SB-7 13-14'	MC21383-10
			SB-8 13-13.8'	MC21383-11
			SB-9 12-13.8'	MC21383-12
			EQUIP BLANK 1	MC21383-13
			SB-10 11-12'	MC21383-14
			SB-11 7-8.3'	MC21383-15
			42WADS SB-1 1-2'	MC21383-16
			42WADS SB-2 3-4.5'	MC21383-17
			42WADS SB-3 3.5-4.6'	MC21383-18
			42WADS SB-4 1-2'	MC21383-19
			42WADS SB-4 10-11'	MC21383-20
			42WADS SB-6 1.5-2.5'	MC21383-21
			42WADS SB-6 8-10'	MC21383-22
			42WADS SB-7 1.5-2.5'	MC21383-23
			42WADS SB-8 17.5-18.7'	MC21383-24
			42WADS SB-9 11-12'	MC21383-25
			TRIP BLANK	MC21383-26
TRIP BLANK	MC21383-27			

SDG#	Date Collected	Matrix	Sample Identification	
			Client ID	Laboratory ID
MC21503	06/04/2013 – 06/05/2013	Soil/Water	15 PULASKI SB-1 4-5' 15 PULASKI SB-1 16-18' 15 PULASKI SB-2 16-20' 15 PULASKI SB-3 4-8' 15 PULASKI SB-3 16-20' EQUIPMENT BLANK-3 15 PULASKI SB-4 4-8' 15 PULASKI SB-4 16-20' 15 PULASKI SB-5 20-20.3' 15 PULASKI SB-6 1-4' 15 PULASKI SB-6 16-20' DUP-1 15 PULASKI SB-7 17-20' 15 PULASKI SB-8 1-4' 15 PULASKI SB-8 16-19' 15 PULASKI SB-9 16-18' 15 PULASKI SB-10 16-20'	MC21503-1 MC21503-2 MC21503-3 MC21503-4 MC21503-5 MC21503-6 MC21503-7 MC21503-8 MC21503-9 MC21503-10 MC21503-11 MC21503-12 MC21503-13 MC21503-14 MC21503-15 MC21503-16 MC21503-17
MC21504	06/03/2013	Soil/Water	38 WADS SB-1 8-10' 38 WADS SB-2 5-7' DUP-1 38 WADS SB-3 12-14' EQUIPMENT BLANK 38 WADS SB-4 12-14' 38 WADS SB-5 2-3.7' 38 WADS SB-6 1-3' 38 WADS SB-7 8-10' TRIP BLANK	MC21504-1 MC21504-2 MC21504-3 MC21504-4 MC21504-5 MC21504-6 MC21504-7 MC21504-8 MC21504-9 MC21504-10
MC22017	06/19/2013 – 06/24/2013	Water	MW-1 (06/19/2013) MW-3 (06/20/2013) MW-2 (06/20/2013) DUPE-X (06/20/2013) FIELD BLANK (06/19/2013) FIELD BLANK (06/20/2013) TRIP BLANK (06/20/2013) MW-1 (06/20/2013) FIELD BLANK (06/21/2013) MW-2 (06/21/2013) MW-3 (06/21/2013) MW-4 (06/21/2013) TRIP BLANK (06/21/2013) MW-3 (06/24/2013) MW-2 (06/24/2013) MW-1 (06/24/2013) MW-3 (06/24/2013) MW-2 (06/24/2013) MW-1 (06/24/2013) FIELD BLANK (06/24/2013)	MC22017-1 MC22017-2 MC22017-3 MC22017-4 MC22017-5 MC22017-6 MC22017-7 MC22017-8 MC22017-9 MC22017-10 MC22017-11 MC22017-12 MC22017-13 MC22017-14 MC22017-15 MC22017-16 MC22017-17 MC22017-18 MC22017-19 MC22017-20

1.2 Analytical Methods

The samples were analyzed for volatile organics (VOCs), semivolatile organics (SVOCs), polychlorinated biphenyls (PCBs), and inorganics (Metals) following New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocol (ASP) methodologies

(2005 update). Laboratory analyses were provided by New England Accutest Laboratories located in Marlborough, Massachusetts.

1.3 Validation Protocols

Data validation is a process that involves the evaluation of analytical data against prescribed quality control criteria to determine the usefulness of the data. The analytical data addressed in this report were evaluated utilizing the quality control criteria presented in the following documents:

- *USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review*, USEPA-540-R-08-01, June 2008.
- *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review*, USEPA-540-R-10-011, January 2010.
- *CLP Organics Data Review and Preliminary Review*, SOP No. HW-6 Revision #14, USEPA Region II, September 2006.
- *Validation of Metals for the Contract Laboratory Program (CLP) based on SOW ILM05.3*, SOP No. HW-2, Revision #13, USEPA Region II, September 2006.
- *Validating Volatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-846 Method 8260B*, SOP No. HW-24 Revision #2, USEPA Hazardous Waste Support Branch, August 2008.
- *Validating Semivolatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-846 Method 8270D*, SOP No. HW-22 Revision #4, USEPA Hazardous Waste Support Branch, August 2008.
- *Validating PCB Compounds by Gas Chromatography SW-846 Method 8082A*, SOP No. HW-45 Revision #1, USEPA Hazardous Waste Support Branch, October 2006.
- *Exhibit E of New York State Department of Environmental Conservation Analytical Services Protocol (NYSDEC ASP)*, NYSDEC June 2005.

1.3.1 Inorganic Parameters

The validation of inorganics for this project followed the requirements presented in the analytical methodology and the data validation guidelines presented above. The following QA/QC parameters were evaluated:

1. Holding Times
2. Calibration
 - a. Initial Calibration Verification
 - b. Continuing Calibration Verification
3. Blank Analysis
4. ICP Interference Check Sample Analysis (ICP only)
5. Matrix Spike Analysis

6. Laboratory Duplicate Analysis
7. Laboratory Control Sample Analysis
8. ICP Serial Dilution Analysis (ICP only)
9. Furnace Atomic Absorption Analysis
10. Method of Standard Addition Results
11. Field Blanks
12. Element Quantification and Reported Detection Limits
13. Document Completeness
14. Overall Data Assessment

1.3.2 Organic Parameters

The validation of organic parameters for this project followed the requirements presented in the analytical methodology and the data validation guidelines presented above. The following QA/QC parameters were evaluated:

Volatile and Semivolatile Organics Analyses

1. Holding Times
2. GC/MS Instrument Tuning Criteria
3. Calibration
 - a. Initial Calibration
 - b. Continuing Calibration
4. Blank Analysis
5. Surrogate Recovery
6. Matrix Spike / Matrix Spike Duplicate Analysis
7. Reference Standard Analysis
8. Internal Standards Recovery
9. Compound Identification and Quantification
10. Field Duplicate Analysis
11. System Performance
12. Documentation Completeness
13. Overall Data Assessment

PCBs Analysis

1. Holding Times
2. Instrument Performance
 - a. Standards Retention Time Windows
 - b. DCBP Retention Time Shift
 - c. Baseline Stability
 - d. Chromatographic Resolution
3. Calibration
 - a. Initial Calibration
 - b. Analytical Sequence Verification
 - c. Continuing Calibration Verification
4. Blank Analysis
5. Surrogate Recovery
6. Matrix Spike/Matrix Spike Duplicate Analysis
7. Reference Standard Analysis
8. Compound Identification and Quantification

9. Documentation Completeness
10. Overall Data Assessment

1.4 Data Qualifiers

The following qualifiers as specified in the guidance documents presented in Section 1.3 of this report have been used for this data validation.

- U Indicates that the compound was analyzed for, but was not detected. The sample quantification limit is presented and adjusted for dilution. This qualifier is also used to signify that the detection limit of an analyte was raised due to blank contamination.
- J Indicates that the result should be considered approximate. This qualifier is used when the data validation procedure identifies a deficiency in the data generation process.
- UJ Indicates that the detection limit for the analyte in this sample should be considered approximate. This qualifier is used when the data validation process identifies a deficiency in the data generation process.
- R Indicates that the previously reported detection limit or sample result has been rejected due to a major deficiency in the data generation procedure. The data are considered to be unusable for both qualitative and quantitative purposes.

The following sections of this document present a summary of the data validation process. Section 2 discusses data compliance with established QA/QC criteria and qualifications performed on the sample data. A discussion of the Precision, Accuracy, Representativeness, Comparability, and Completeness (PARCC) of the data and data usability are discussed in Section 3. The USEPA Region II Data Validation Checklists are presented in Appendix A.

SECTION 2 - DATA VALIDATION SUMMARY

This section presents a discussion of QA/QC parameter compliance with established criteria and the qualification of data performed when QA/QC parameter deviations were identified. When several deviations from established QA/QC criteria were observed, the final qualifier assigned to the data was based on the cumulative effect of the deviations.

2.1 Inorganics Analysis

Data validation was performed fifty-nine soil samples, fourteen water samples, and five equipment blank samples for total inorganic parameters. The QA/QC parameters presented in Section 1.3.1 of this report were found to be within specified limits with the exception of the following:

Matrix Spike Analysis

Matrix spike (MS) recovery criteria requiring spike recoveries to be between prescribed limits were exceeded for several analytes. Qualification of sample results included the approximation of results when spike recoveries were greater than the upper limit, but less than 200 percent or less than the lower limit, but greater than 10 percent. Detected results were rejected for analytes with spike recoveries greater than 200 percent. Qualification of sample data was not required when the non-spiked sample concentration was greater than four-times the spike solution concentration. Samples qualified due to MS recovery deviations are tabulated below.

Table 2: Inorganics Analysis - Matrix Spike Deviations

SDG#	MS Sample ID	Inorganic	Percent Recovery	Control Limits	Qualifier	Affected Samples
MC21006	TP-4 6-6.5'	Antimony Magnesium	27.0 %/28.3 % 85.2 %/69.4 %	75 % to 125 % 75 % to 125 %	J J	TP-1 7.0' TP-2 5-7' TP-3 2-4' TP-3 6.5-7.0' TP-4 2-4' TP-4 6-6.5' TP-5 2-4' TP-6 4-6' TP-7 1-3' TP-X TP-7 5.5-6.0'
MC21383	SB-5 10-12'	Antimony Nickel	53.9 %/53.4 % 78.3 %/141.1 %	75 % to 125 % 75 % to 125 %	J J	SB-1 6-7' SB-2 9-10.8' SB-3 9-10' SB-4 7-7.8' SB-5 10-12' SB-6 2-4' SB-6 7-9' DUP-1 SB-7 8.5-9.5' SB-7 13-14' SB-8 13-13.8'

SDG#	MS Sample ID	Inorganic	Percent Recovery	Control Limits	Qualifier	Affected Samples
MC21383	42WADS SB-1 1-2'	Aluminum	144.7 %/89.5 %	75 % to 125 %	J	SB-9 12-13.8' SB-10 11-12' SB-11 7-8.3' 42WADS SB-1 1-2' 42WADS SB-2 3-4.5' 42WADS SB-3 3.5-4.6' 42WADS SB-4 1-2' 42WADS SB-4 10-11' 42WADS SB-6 1.5-2.5' 42WADS SB-6 8-10' 42WADS SB-7 1.5-2.5' 42WADS SB-8 17.5-18.7' 42WADS SB-9 11-12'

Field Duplicate Analysis

Field duplicate criterion requires the relative percent difference (RPD) between duplicate analyses to be less than 50 percent (100 percent for soil samples). Qualification of sample results included the approximation of data for analytes with RPD values greater than 50 percent. Samples qualified due to field duplicate analysis deviations are tabulated below.

Table 3: Inorganics Analysis - Field Duplicate Deviations

SDG#	Duplicate Sample ID	Original Sample ID	Analyte	RPD	Qualifier	Affected Samples
MC21006	TP-X	TP-7 1-3'	Lead Mercury	108.6 % 109.3 %	J J	TP-1 7.0' TP-2 5-7' TP-3 2-4' TP-3 6.5-7.0' TP-4 2-4' TP-4 6-6.5' TP-5 2-4' TP-6 4-6' TP-7 1-3' TP-X TP-7 5.5-6.0

SDG#	Duplicate Sample ID	Original Sample ID	Analyte	RPD	Qualifier	Affected Samples
MC21383	DUP-1	SB-2 9-10.8'	Mercury	200 %	J, UJ	SB-1 6-7' SB-2 9-10.8' SB-3 9-10' SB-4 7-7.8' SB-5 10-12' SB-6 2-4' SB-6 7-9' DUP-1 SB-7 8.5-9.5' SB-7 13-14' SB-8 13-13.8' SB-9 12-13.8' SB-10 11-12' SB-11 7-8.3' 42WADS SB-1 1-2' 42WADS SB-2 3-4.5' 42WADS SB-3 3.5-4.6' 42WADS SB-4 1-2' 42WADS SB-4 10-11' 42WADS SB-6 1.5-2.5' 42WADS SB-6 8-10' 42WADS SB-7 1.5-2.5' 42WADS SB-8 17.5-18.7' 42WADS SB-9 11-12'
MC22017	DUPE-X	MW-2 (06/20/2013)	Mercury	200 %	J, UJ	MW-1 (MC22017-1) MW-3 (MC22017-2) MW-2 (MC22017-3) DUPE-X (MC22017-4) MW-1 (MC22017-8) MW-2 (MC22017-10) MW-3 (MC22017-11) MW-4 (MC22017-12) MW-3 (MC22017-14) MW-2 (MC22017-15) MW-1 (MC22017-16) MW-3 (MC22017-17) MW-2 (MC22017-18) MW-1 (MC22017-19)

ICP Serial Dilution Analysis

ICP serial dilution criteria require the percent difference (%D) between results of a non-diluted analysis and a four-fold dilution analysis to be less than 10 percent for analytes with a non-diluted concentration greater than 50 times the instrument detection limit (IDL). Analytes with %D values greater than 10 percent are qualified as approximated for samples with concentrations greater than 50 times the IDL. Analytes that exceeded ICP serial dilution criteria and the samples that required qualification are presented below.

Table 4: Inorganics Analysis - ICP Serial Dilution Deviations

SDG#	Serial Dilution Sample ID	Inorganic	%D	Qualifier	Affected Samples
MC21006	TP-4 6-6.5'	Aluminum Barium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Nickel Vanadium Zinc	12.4 % 13.5 % 14.1 % 16.2 % 11.6 % 11.8 % 15.3 % 13.0 % 13.7 % 16.8 % 13.5 % 16.4 % 16.0 %	J J J J J J J J J J J J J	TP-1 7.0' TP-2 5-7' TP-3 2-4' TP-3 6.5-7.0' TP-4 2-4' TP-4 6-6.5' TP-5 2-4' TP-6 4-6' TP-7 1-3' TP-X TP-7 5.5-6.0
MC21383	SB-5 10-12'	Chromium Iron Magnesium Manganese Nickel Vanadium Zinc	15.9 % 12.9 % 12.2 % 12.5 % 12.3 % 10.6 % 19.2 %	J J J J J J J	SB-1 6-7' SB-2 9-10.8' SB-3 9-10' SB-4 7-7.8' SB-5 10-12' SB-6 2-4' SB-6 7-9' DUP-1 SB-7 8.5-9.5' SB-7 13-14' SB-8 13-13.8'
MC21383	42WADS SB-1 1-2'	Zinc	13.7 %	J	SB-9 12-13.8' SB-10 11-12' SB-11 7-8.3' 42WADS SB-1 1-2' 42WADS SB-2 3-4.5' 42WADS SB-3 3.5-4.6' 42WADS SB-4 1-2' 42WADS SB-4 10-11' 42WADS SB-6 1.5-2.5' 42WADS SB-6 8-10' 42WADS SB-7 1.5-2.5' 42WADS SB-8 17.5-18.7' 42WADS SB-9 11-12'
MC21503	MC21475-1	Potassium	11.2 %	J	EQUIPMENT BLANK-3
MC21503	15 PULASKI SB-4 4-8'	Iron	11.0 %	J	15 PULASKI SB-1 4-5' 15 PULASKI SB-1 16-18' 15 PULASKI SB-2 16-20' 15 PULASKI SB-3 4-8' 15 PULASKI SB-3 16-20' 15 PULASKI SB-4 4-8' 15 PULASKI SB-4 16-20' 15 PULASKI SB-5 20-20.3' 15 PULASKI SB-6 1-4' 15 PULASKI SB-6 16-20' DUP-1 15 PULASKI SB-7 17-20' 15 PULASKI SB-8 1-4' 15 PULASKI SB-8 16-19' 15 PULASKI SB-9 16-18' 15 PULASKI SB-10 16-20'
MC21504	MC21475-1	Potassium	11.2 %	J	EQUIPMENT BLANK

SDG#	Serial Dilution Sample ID	Inorganic	%D	Qualifier	Affected Samples
MC21504	38 WADS SB-3 12-14'	Aluminum Barium Chromium Cobalt Copper Iron Lead Magnesium Manganese Nickel Potassium Vanadium Zinc	10.7 % 12.0 % 18.9 % 14.5 % 11.1 % 18.1 % 19.9 % 15.6 % 17.3 % 19.1 % 15.5 % 16.4 % 22.5 %	J J J J J J J J J J J J J	38 WADS SB-3 12-14' 38 WADS SB-5 2-3.7' 38 WADS SB-6 1-3' 38 WADS SB-7 8-10'
MC21504	15 PULASKI SB-4 4-8'	Iron	11.0 %	J	38 WADS SB-1 8-10' 38 WADS SB-2 5-7' DUP-1 38 WADS SB-4 12-14'

Overall Data Assessment

Overall, the laboratory performed inorganics analyses in accordance with the requirements specified in the methods listed in Section 1.2 of this report. These data have been determined to be usable for qualitative and quantitative purposes with qualification. Sample qualification also included the approximation of data for several analytes due to deviations from matrix spike, field duplicate, and ICP serial dilution criteria.

2.2 Volatiles Analysis

Data validation was performed for forty-eight soil samples, fourteen water samples, four field blank samples, three equipment blank samples, and five trip blank samples for volatile organic parameters. The QA/QC parameters presented in Section 1.3.2 of this report were found to be within specified limits with the exception of the following:

Initial Calibration

The initial calibration relative standard deviation (%RSD) limit, which requires the %RSD to be less than 30 percent, was exceeded for several compounds. Sample qualification included the approximation (J, UJ) of results when %RSD criteria were exceeded. Samples requiring qualification due to these deviations are tabulated below.

Table 5: Volatile Organics Analysis - Initial Calibration Deviations

SDG#	Date Analyzed	Compound	%RSD	Result Qualifier	Affected Samples
MC21383	04/26/2013	Acetone	49.19 %	J, UJ	SB-1 6-7' SB-2 9-10.8' SB-3 9-10' SB-4 7-7.8' SB-5 10-12' SB-6 2-4' SB-6 7-9' DUP-1 SB-7 8.5-9.5' SB-7 13-14' SB-8 13-13.8' SB-9 12-13.8' EQUIP BLANK 1 SB-10 11-12' SB-11 7-8.3' 42WADS SB-1 1-2' 42WADS SB-2 3-4.5' 42WADS SB-3 3.5-4.6' 42WADS SB-4 1-2' 42WADS SB-4 10-11' 42WADS SB-6 1.5-2.5' 42WADS SB-6 8-10' 42WADS SB-7 1.5-2.5' 42WADS SB-8 17.5-18.7' 42WADS SB-9 11-12' TRIP BLANK TRIP BLANK
MC21503	04/26/2013	Acetone	49.19 %	J, UJ	15 PULASKI SB-1 16-18' 15 PULASKI SB-2 16-20' 15 PULASKI SB-3 4-8' 15 PULASKI SB-3 16-20' 15 PULASKI SB-4 4-8' 15 PULASKI SB-4 16-20' 15 PULASKI SB-5 20-20.3' 15 PULASKI SB-6 1-4' DUP-1 15 PULASKI SB-7 17-20' 15 PULASKI SB-8 1-4' 15 PULASKI SB-8 16-19' 15 PULASKI SB-9 16-18'

Continuing Calibration

The continuing calibration percent difference (%D) limit, which requires the %D to be less than 25 percent, was exceeded for several compounds. Sample qualification included the approximation (J, UJ) of results when %D criteria were exceeded, but were less than 90 percent. Non-detected sample results were rejected for compounds with %D values greater than 90 percent. Samples requiring qualification due to these deviations are tabulated below.

Table 6: Volatile Organics Analysis - Continuing Calibration Deviations

SDG#	Date Analyzed	Compound	%D	Result Qualifier	Affected Samples
MC21383	06/12/2013	Tetrachloroethene 2-Hexanone	27.4 % 30.3 %	UJ UJ	SB-7 8.5-9.5' SB-10 11-12' SB-11 7-8.3' 42WADS SB-1 1-2' 42WADS SB-2 3-4.5'
MC21383	06/13/2013	2-Hexanone	27.6 %	UJ	42WADS SB-3 3.5-4.6' 42WADS SB-4 1-2' 42WADS SB-4 10-11' 42WADS SB-6 1.5-2.5' 42WADS SB-6 8-10' 42WADS SB-7 1.5-2.5' 42WADS SB-8 17.5-18.7'
MC21383	06/14/2013	Acetone 2-Butanone	75.8 % 27.7 %	UJ UJ	42WADS SB-9 11-12'
MC21503	06/10/2013	Acetone	26.7 %	UJ	15 PULASKI SB-1 4-5' 15 PULASKI SB-6 16-20' 15 PULASKI SB-10 16-20'
MC21503	06/17/2013	Acetone	100.4 %	J, R	15 PULASKI SB-1 16-18' 15 PULASKI SB-2 16-20' 15 PULASKI SB-3 4-8' 15 PULASKI SB-3 16-20'
MC21504	06/10/2013	n-Butylbenzene	25.4 %	UJ	EQUIPMENT BLANK TRIP BLANK
MC22017	07/05/2013	Acetone	34.5 %	UJ	MW-3 (MC22017-17) MW-2 (MC22017-18) MW-1 (MC22017-19) FIELD BLANK (MC22017-20)

Matrix Spike Recovery

Matrix spike/matrix spike duplicate (MS/MSD) recovery criteria requiring compound recoveries to be within laboratory generated control limits were exceeded for several compounds. Qualification of sample results included the approximation of results when spike recoveries were greater than the upper limit, but less than 200 percent or less than the lower limit, but greater than 10 percent. Non-detected sample results were rejected (R) for compounds with recoveries less than 10 percent. Samples qualified due to MS/MSD recovery deviations are tabulated below.

Table 7: Volatile Organics Analysis - MS/MSD Analysis Deviations

SDG#	MS/MSD Sample ID	Compound	Percent Recovery (MS/MSD)	Control Limits	Qualifier	Affected Samples
MC21383	MC21507	Benzene	67 %/78 %	70 % to 130 %	J, UJ	SB-2 9-10.8'
		Bromodichloromethane	61 %/75 %	70 % to 130 %	UJ	SB-3 9-10'
		Carbon Disulfide	67 %/85 %	70 % to 130 %	J, UJ	DUP-1
		Chlorobenzene	56 %/75 %	70 % to 130 %	UJ	SB-7 13-14'
		Chloroform	62 %/76 %	70 % to 130 %	UJ	SB-8 13-13.8'
		Dibromochloromethane	66 %/81 %	70 % to 130 %	UJ	SB-9 12-13.8'
		1,1-Dichloroethane	63 %/77 %	70 % to 130 %	UJ	
		1,2-Dichloroethane	64 %/77 %	70 % to 130 %	UJ	
		cis-1,2-Dichloroethene	58 %/71 %	70 % to 130 %	UJ	
		trans-1,2-Dichloroethene	63 %/77 %	70 % to 130 %	UJ	
		1,2-Dichloropropane	60 %/73 %	70 % to 130 %	UJ	
		cis-1,3-Dichloropropene	56 %/70 %	70 % to 130 %	UJ	
		trans-1,3-Dichloropropene	59 %/75 %	70 % to 130 %	UJ	
		Ethylbenzene	55 %/82 %	70 % to 130 %	UJ	
		Methylene Chloride	61 %/76 %	70 % to 130 %	UJ	
		Styrene	51 %/74 %	70 % to 130 %	UJ	
		Tetrachloroethene	61 %/91 %	70 % to 130 %	UJ	
		Toluene	67 %/81 %	70 % to 130 %	J, UJ	
		1,1,1-Trichloroethane	68 %/86 %	70 % to 130 %	UJ	
		1,1,2-Trichloroethane	63 %/78 %	70 % to 130 %	UJ	
		Trichloroethene	63 %/85 %	70 % to 130 %	UJ	
		Xylene (total)	56 %/81 %	70 % to 130 %	UJ	
MC21383	MC21534	cis-1,2-Dichloroethene	66 %/70 %	70 % to 130 %	UJ	SB-7 8.5-9.5'
		Styrene	35 %/36 %	70 % to 130 %	UJ	SB-10 11-12'
		Vinyl Chloride	66 %/68 %	70 % to 130 %	UJ	SB-11 7-8.3'
						42WADS SB-1 1-2'
						42WADS SB-2 3-4.5'
MC21383	42WADS SB-9 11-12'	Bromodichloromethane	68 %/70 %	70 % to 130 %	UJ	42WADS SB-9 11-12'
		Bromoform	52 %/51 %	70 % to 130 %	UJ	
		Chlorobenzene	56 %/55 %	70 % to 130 %	UJ	
		Dibromochloromethane	63 %/64 %	70 % to 130 %	UJ	
		1,2-Dichloroethane	68 %/69 %	70 % to 130 %	UJ	
		cis-1,2-Dichloroethene	68 %/69 %	70 % to 130 %	UJ	
		1,2-Dichloropropane	68 %/70 %	70 % to 130 %	UJ	
		cis-1,3-Dichloropropene	55 %/57 %	70 % to 130 %	UJ	
		trans-1,3-Dichloropropene	49 %/49 %	70 % to 130 %	UJ	
		Ethylbenzene	67 %/67 %	70 % to 130 %	UJ	
		Styrene	43 %/43 %	70 % to 130 %	UJ	
		1,1,2,2-Tetrachloroethane	64 %/60 %	70 % to 130 %	UJ	
		1,1,2-Trichloroethane	62 %/62 %	70 % to 130 %	UJ	
		Xylene (total)	64 %/66 %	70 % to 130 %	UJ	

SDG#	MS/MSD Sample ID	Compound	Percent Recovery (MS/MSD)	Control Limits	Qualifier	Affected Samples
MC21503	15 PULASKI SB-1 16-18'	Acetone	425 %/536 %	70 % to 130 %	J	15 PULASKI SB-1 16-18'
		Benzene	50 %/48 %	70 % to 130 %	J, UJ	15 PULASKI SB-2 16-20'
		Bromodichloromethane	55 %/49 %	70 % to 130 %	UJ	15 PULASKI SB-3 4-8'
		Bromoform	34 %/41 %	70 % to 130 %	UJ	15 PULASKI SB-3 16-20'
		Bromomethane	69 %/77 %	70 % to 130 %	UJ	
		Carbon Disulfide	48 %/45 %	70 % to 130 %	J, UJ	
		Carbon Tetrachloride	55 %/55 %	70 % to 130 %	UJ	
		Chlorobenzene	29 %/26 %	70 % to 130 %	UJ	
		Chloroform	53 %/57 %	70 % to 130 %	UJ	
		Dibromochloromethane	42 %/48 %	70 % to 130 %	UJ	
		1,1-Dichloroethane	58 %/62 %	70 % to 130 %	UJ	
		1,2-Dichloroethane	51 %/55 %	70 % to 130 %	UJ	
		1,1-Dichloroethene	61 %/62 %	70 % to 130 %	UJ	
		cis-1,2-Dichloroethene	42 %/44 %	70 % to 130 %	UJ	
		trans-1,2-Dichloroethene	42 %/41 %	70 % to 130 %	UJ	
		1,2-Dichloropropane	50 %/52 %	70 % to 130 %	UJ	
		cis-1,3-Dichloropropene	35 %/35 %	70 % to 130 %	UJ	
		trans-1,3-Dichloropropene	29 %/30 %	70 % to 130 %	UJ	
		Ethylbenzene	37 %/34 %	70 % to 130 %	UJ	
		2-Hexanone	58 %/69 %	70 % to 130 %	UJ	
		Styrene	22 %/18 %	70 % to 130 %	UJ	
		1,1,2,2-Tetrachloroethane	48 %/53 %	70 % to 130 %	UJ	
		Tetrachloroethene	44 %/40 %	70 % to 130 %	UJ	
		Toluene	41 %/37 %	70 % to 130 %	UJ	
		1,1,1-Trichloroethane	55 %/58 %	70 % to 130 %	UJ	
		1,1,2-Trichloroethane	46 %/49 %	70 % to 130 %	UJ	
		Trichloroethene	43 %/38 %	70 % to 130 %	UJ	
		Vinyl Chloride	58 %/64 %	70 % to 130 %	UJ	
		Xylene (total)	35 %/31 %	70 % to 130 %	UJ	
MC21503	15 PULASKI SB-4 4-8'	Acetone	335 %/930 %	70 % to 130 %	J	15 PULASKI SB-4 16-20' 15 PULASKI SB-5 20-20.3'
MC21504	15 PULASKI SB-1 16-18'	Benzene	50 %/48 %	70 % to 130 %	J, UJ	38 WADS SB-4 12-14'
		n-Butylbenzene	37 %/28 %	70 % to 130 %	J, UJ	38 WADS SB-6 1-3'
		sec-Butylbenzene	41 %/34 %	70 % to 130 %	J, UJ	38 WADS SB-7 8-10'
		tert-Butylbenzene	44 %/37 %	70 % to 130 %	UJ	
		Ethylbenzene	37 %/34 %	70 % to 130 %	UJ	
		Isopropylbenzene	46 %/38 %	70 % to 130 %	J, UJ	
		p-Isopropyltoluene	43 %/35 %	70 % to 130 %	UJ	
		Naphthalene	10 %/8 %	70 % to 130 %	R	
		n-Propylbenzene	40 %/31 %	70 % to 130 %	UJ	
		Toluene	41 %/37 %	70 % to 130 %	UJ	
		1,2,4-Trimethylbenzene	35 %/29 %	70 % to 130 %	UJ	
		1,3,5-Trimethylbenzene	40 %/33 %	70 % to 130 %	UJ	
		m,p-Xylene	35 %/31 %	70 % to 130 %	UJ	
		o-Xylene	34 %/31 %	70 % to 130 %	UJ	
		Xylene (total)	35 %/31 %	70 % to 130 %	UJ	
MC22017	MSL3506	Acetone	42 %/49 %	70 % to 130 %	J, UJ	MW-3 (MC22017-17)
		2-Butanone (MEK)	67 %/80 %	70 % to 130 %	UJ	MW-2 (MC22017-18)
						MW-1 (MC22017-19)
						FIELD BLANK (MC22017-20)
MC22017	MC22178-4	Acetone	43 %/54 %	70 % to 130 %	J, UJ	MW-3 (MC22017-17)
		Bromomethane	61 %/90 %	70 % to 130 %	UJ	MW-2 (MC22017-18)
		2-Hexanone	66 %/90 %	70 % to 130 %	UJ	MW-1 (MC22017-19)
		Styrene	2 %/2 %	70 % to 130 %	R	FIELD BLANK (MC22017-20)
		Vinyl Chloride	54 %/77 %	70 % to 130 %	UJ	
		Xylene (total)	39 %/59 %	70 % to 130 %	UJ	

SDG#	MS/MSD Sample ID	Compound	Percent Recovery (MS/MSD)	Control Limits	Qualifier	Affected Samples
MC22017	MC22178-4	tert-Butylbenzene	8 %/560 %	70 % to 130 %	R	TRIP BLANK (MC22017-13)
		p-Isopropyltoluene	63 %/91 %	70 % to 130 %	UJ	
		Methyl Tert Butyl Ether	66 %/89 %	70 % to 130 %	UJ	
		Naphthalene	12 %/21 %	70 % to 130 %	UJ	
		1,2,4-Trimethylbenzene	6 %/2 %	70 % to 130 %	R	
		1,3,5-Trimethylbenzene	0 %/0 %	70 % to 130 %	R	
		m,p-Xylene	27 %/41 %	70 % to 130 %	UJ	
		o-Xylene	62 %/94 %	70 % to 130 %	UJ	
		Xylene (total)	39 %/59 %	70 % to 130 %	UJ	
MC22017	MC22011	Methyl Tert Butyl Ether	63 %/96 %	70 % to 130 %	UJ	MW-1 (MC22017-1)

Internal Standards Recovery

The internal standard areas exceeded recovery limits for several samples. Qualification of sample results included the approximation of results when recoveries were greater than the upper limit, but less than 200 percent or less than the lower limit, but greater than 25 percent. Samples qualified due to internal standard recovery deviations are tabulated below.

Table 8: Volatile Organics Analysis - Internal Standard Deviations

SDG#	Sample ID	Internal Standard	Percent Recovery	Affected Compounds	Qualifier
MC21383	SB-5 10-12'	1,4-Dichlorobenzene-d4	48.4 %	1,1,2,2-Tetrachloroethane	UJ
MC21383	SB-2 9-10.8'	1,4-Dichlorobenzene-d4	30.4 %	1,1,2,2-Tetrachloroethane	UJ
MC21383	SB-3 9-10'	Chlorobenzene-d5	32.2 %	Tetrachloroethene	UJ
				2-Hexanone	UJ
				Chlorobenzene	UJ
				Ethylbenzene	UJ
				Xylene (total)	UJ
				Styrene	UJ
				Bromoform	UJ
		1,4-Dichlorobenzene-d4	4.74 %	1,1,2,2-Tetrachloroethane	R
MC21383	DUP-1	1,4-Dichlorobenzene-d4	46.3 %	1,1,2,2-Tetrachloroethane	UJ
MC21383	SB-9 12-13.8'	Pentafluorobenzene	46.6 %	All Compounds	UJ
		1,4-Difluorobenzene	45.0 %		
		Chlorobenzene-d5	43.0 %		
		1,4-Dichlorobenzene-d4	42.2 %		

Overall Data Assessment

Overall, the laboratory performed volatile organics analyses in accordance with the requirements specified in the method listed in Section 1.2. These data have been determined to be usable for qualitative and quantitative purposes with the exception of Acetone, Naphthalene, tert-Butylbenzene, Styrene, 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, and 1,1,2,2-Tetrachloroethane results for several samples which were rejected due to continuing calibration, matrix spike, and internal standard criteria deviations. Sample qualification also included the approximation of data for several

compounds due to deviations from initial and continuing calibration, matrix spike, and internal standard criteria.

2.3 Semivolatiles Analysis

Data validation was performed for fifty-nine soil samples, fourteen water samples, and five equipment blank samples for semivolatile organic parameters. The QA/QC parameters presented in Section 1.3.2 of this report were found to be within specified limits with the exception of the following:

Initial Calibration

The initial calibration relative standard deviation (%RSD) limit, which requires the %RSD to be less than 30 percent, was exceeded for several compounds. Sample qualification included the approximation (J, UJ) of results when %RSD criteria were exceeded. Samples requiring qualification due to these deviations are tabulated below.

Table 9: Semivolatile Organics Analysis - Initial Calibration Deviations

SDG#	Date Analyzed	Compound	%RSD	Result Qualifier	Affected Samples	
MC21006	04/10/2013	2,4-Dinitrophenol	46.73 %	UJ	TP-1 7.0' TP-2 5-7' TP-3 2-4' TP-3 6.5-7.0' TP-4 2-4' TP-4 6-6.5' TP-5 2-4' TP-6 4-6' TP-7 1-3' TP-X TP-7 5.5-6.0	
		4,6-Dinitro-2-methylphenol	41.52 %	UJ		
		Pentachlorophenol	33.27 %	UJ		
MC21383	04/10/2013	2,4-Dinitrophenol	46.73 %	UJ		SB-1 6-7' SB-2 9-10.8' SB-3 9-10' SB-4 7-7.8' SB-5 10-12' SB-6 2-4' SB-6 7-9' DUP-1 SB-7 8.5-9.5' SB-7 13-14' SB-8 13-13.8' SB-9 12-13.8' SB-10 11-12' SB-11 7-8.3'
		4,6-Dinitro-2-methylphenol	41.52 %	UJ		
		Pentachlorophenol	33.27 %	UJ		

SDG#	Date Analyzed	Compound	%RSD	Result Qualifier	Affected Samples
MC21383	04/10/2013	2,4-Dinitrophenol 4,6-Dinitro-2-methylphenol Pentachlorophenol	46.73 % 41.52 % 33.27 %	UJ UJ UJ	42WADS SB-1 1-2' 42WADS SB-2 3-4.5' 42WADS SB-3 3.5-4.6' 42WADS SB-4 1-2' 42WADS SB-4 10-11' 42WADS SB-6 1.5-2.5' 42WADS SB-6 8-10' 42WADS SB-7 1.5-2.5' 42WADS SB-8 17.5-18.7' 42WADS SB-9 11-12'

Continuing Calibration

The continuing calibration percent difference (%D) limit, which requires the %D to be less than 25 percent, was exceeded for several compounds. Sample qualification included the approximation (J, UJ) of results when %D criteria were exceeded, but were less than 90 percent. Samples requiring qualification due to these deviations are tabulated below.

Table 10: Semivolatile Organics Analysis - Continuing Calibration Deviations

SDG#	Date Analyzed	Compound	%D	Result Qualifier	Affected Samples
MC21006	06/03/2013	Hexachlorocyclopentadiene 3,3'-Dichlorobenzidine	31.3 % 28.0 %	UJ UJ	TP-1 7.0' TP-2 5-7' TP-3 2-4' TP-3 6.5-7.0' TP-4 2-4'
MC21006	06/04/2013	Hexachlorocyclopentadiene	31.9 %	UJ	TP-4 6-6.5' TP-5 2-4' TP-6 4-6' TP-7 1-3' TP-X TP-7 5.5-6.0
MC21383	06/11/2013	3,3'-Dichlorobenzidine	33.3 %	UJ	SB-1 6-7' SB-2 9-10.8' SB-3 9-10' SB-4 7-7.8' SB-6 2-4' SB-6 7-9' DUP-1 SB-7 8.5-9.5' SB-7 13-14'
MC21383	06/21/2013	Bis(2-chloroisopropyl)ether Hexachlorocyclopentadiene	26.2 % 26.9 %	UJ UJ	42WADS SB-6 1.5-2.5'
MC21383	06/07/2013	3,3'-Dichlorobenzidine	30.2 %	UJ	EQUIP BLANK 1
MC22017	06/27/2013	Naphthalene	36.6 %	UJ	MW-1 (MC22017-8)

Laboratory Control Sample Analysis

Laboratory control sample (LCS) recovery criteria requiring compound recoveries to be within laboratory generated control limits were exceeded for several compounds. Qualification of sample results included the approximation of results when spike recoveries were greater than the upper limit, but less than 200 percent or less than the lower limit, but greater than 10 percent. Non-detected sample results were rejected (R) for compounds with recoveries that were less than 10 percent. Samples qualified due to LCS recovery deviations are tabulated below.

Table 11: Semivolatile Organics Analysis - Laboratory Control Sample Deviations

SDG#	Compound	Percent Recovery	Control Limits	Qualifier	Affected Samples
MC21006	Hexachlorocyclopentadiene	28 %	40 % to 140 %	UJ	TP-4 6-6.5' TP-5 2-4' TP-6 4-6' TP-7 1-3' TP-X TP-7 5.5-6.0
MC21383	4-Nitrophenol	23 %	30 % to 130 %	UJ	EQUIP BLANK 1
	Phenol	29 %	30 % to 130 %	UJ	
	1,3-Dichlorobenzene	35 %	40 % to 140 %	UJ	
	1,4-Dichlorobenzene	37 %	40 % to 140 %	UJ	
	Dimethyl phthalate	14 %	40 % to 140 %	UJ	
	Hexachlorobutadiene	24 %	40 % to 140 %	UJ	
	Hexachlorocyclopentadiene	13 %	40 % to 140 %	UJ	
	Hexachloroethane	24 %	40 % to 140 %	UJ	

Matrix Spike Recovery

Matrix spike/matrix spike duplicate (MS/MSD) recovery criteria requiring compound recoveries to be within laboratory generated control limits were exceeded for several compounds. Qualification of sample results included the approximation of results when spike recoveries were greater than the upper limit, but less than 200 percent or less than the lower limit, but greater than 10 percent. Non-detected sample results were rejected (R) for compounds with recoveries less than 10 percent. Samples qualified due to MS/MSD recovery deviations are tabulated below.

Table 12: Semivolatile Organics Analysis - MS/MSD Analysis Deviations

SDG#	MS/MSD Sample ID	Compound	Percent Recovery (MS/MSD)	Control Limits	Qualifier	Affected Samples
MC21006	OP33368	2,4-Dinitrophenol	33 %/0 %	30 % to 130 %	R	TP-1 7.0'
		4-Chloroaniline	24 %/29 %	40 % to 140 %	UJ	TP-2 5-7'
		3,3'-Dichlorobenzidine	0 %/0 %	40 % to 140 %	R	TP-3 2-4'
		3-Nitroaniline	29 %/37 %	40 % to 140 %	UJ	TP-3 6.5-7.0'
		4-Nitroaniline	26 %/33 %	40 % to 140 %	UJ	TP-4 2-4'

SDG#	MS/MSD Sample ID	Compound	Percent Recovery (MS/MSD)	Control Limits	Qualifier	Affected Samples
MC21006	OP33399	2,4-Dinitrophenol Hexachlorocyclopentadiene	25 %/14 % 32 %/33 %	30 % to 130 % 40 % to 140 %	UJ UJ	TP-4 6-6.5' TP-5 2-4' TP-6 4-6' TP-7 1-3' TP-X TP-7 5.5-6.0
MC21383	OP33514	4-Nitrophenol Phenol 1,3-Dichlorobenzene 1,4-Dichlorobenzene Dimethyl phthalate Hexachlorobutadiene Hexachlorocyclopentadiene Hexachloroethane	28 %/24 % 27 %/30 % 38 %/46 % 39 %/47 % 16 %/15 % 32 %/41 % 18 %/22 % 29 %/37 %	30 % to 130 % 30 % to 130 % 40 % to 140 %	UJ UJ UJ UJ UJ UJ UJ UJ	EQUIP BLANK 1
MC21383	OP33526	2,4-Dinitrophenol	15 %/20 %	30 % to 130 %	UJ	SB-1 6-7' SB-2 9-10.8' SB-3 9-10' SB-4 7-7.8' SB-6 2-4' SB-6 7-9' DUP-1 SB-7 8.5-9.5' SB-7 13-14'
MC21383	OP33529	2,4-Dinitrophenol	20 %/21 %	30 % to 130 %	UJ	SB-5 10-12' SB-8 13-13.8' SB-9 12-13.8' SB-10 11-12' SB-11 7-8.3' 42WADS SB-1 1-2' 42WADS SB-2 3-4.5' 42WADS SB-3 3.5-4.6' 42WADS SB-4 1-2' 42WADS SB-4 10-11' 42WADS SB-6 1.5-2.5' 42WADS SB-6 8-10' 42WADS SB-7 1.5-2.5' 42WADS SB-8 17.5-18.7' 42WADS SB-9 11-12'

Surrogate Recovery

Surrogate compounds are added to the samples prior to sample preparation to evaluate the efficiency of the sample preparation procedures. The data validation guidelines require the surrogate compounds to have percent recovery values within the laboratory generated control limits. When two or more of the surrogate compounds per fraction (acid or base) exceed the recovery limits or any one surrogate per fraction has a recovery of less than 10 percent, the associated sample data require qualification. Samples that required qualification for surrogate compound deficiencies are tabulated below.

Table 13: Semivolatile Analysis - Surrogate Compound Deviations

SDG#	Sample ID	Surrogate Compound	Surrogate Recovery	Control Limits	Fraction	Qualifier
MC21383	SB-11 7-8.3'	2,4,6-Tribromophenol	0 %	30 % to 130 %	Acid Extractable Compounds	R (14 Compounds)
MC21383	42WADS SB-7 1.5-2.5'	Nitrobenzene-d5	2.0 %	30 % to 130 %	Base/Neutral Extractable Compounds	J (8 Compounds) R (42 Compounds)

Overall Data Assessment

Overall, the laboratory performed semivolatile organics analyses in accordance with the requirements specified in the method listed in Section 1.2. These data were determined to be usable for qualitative and quantitative purposes with the exception of 2.18 percent of the data which were rejected due to deviations from matrix spike and surrogate recovery criteria. Sample qualification also included the approximation of data for several compounds due to deviations from initial and continuing calibration, laboratory control sample, matrix spike, and surrogate criteria.

2.4 PCBs Analysis

Data validation was performed for fifty-nine soil samples, fourteen water samples, and five equipment samples for PCB parameters. The QA/QC parameters presented in Section 1.3.2 of this report were found to be within specified limits with the exception of the following:

Overall Data Assessment

Overall, the laboratory performed PCB analyses in accordance with the requirements specified in the method listed in Section 1.2. These data were determined to be usable for qualitative and quantitative purposes as presented by the laboratory.

SECTION 3 - DATA USABILITY and PARCC EVALUATION

3.1 Data Usability

This section presents a summary of the usability of the analytical data and an evaluation of the PARCC parameters. Data usability was calculated as the percentage of data that was not qualified as rejected based on a significant deviation from established QA/QC criteria. Data usability, which was calculated separately for each type of analysis, is tabulated below.

Table 14: Data Usability and PARCC Evaluation - Data Usability

Parameter	Usability	Deviations
Inorganics	100 %	None resulting in the rejection of data.
Volatile Organics	98.97 %	Acetone, Naphthalene, tert-Butylbenzene, Styrene, 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, and 1,1,2,2-Tetrachloroethane results for several samples were rejected due to continuing calibration, matrix spike, and internal standard criteria deviations.
Semivolatile Organics	97.82 %	2,4-Dinitrophenol and 3,3'-Dimethylbenzidine data were rejected for five samples due to matrix spike criteria deviations, data for fourteen acid extractable compounds for one sample were rejected due to surrogate recovery criteria deviations, and data for forty-two base/neutral extractable compounds were rejected for one sample due to surrogate recovery criteria deviations.
PCBs	100 %	None resulting in the rejection of data.

3.2 PARCC Evaluation

The following sections provide an evaluation of the analytical data with respect to the precision, accuracy, representativeness, comparability, and completeness (PARCC) parameters.

3.2.1 Precision

Precision is measured through field duplicate samples, split samples, and laboratory duplicate samples. For this sampling program, 0.84 percent of the data were qualified for field duplicate criteria deviations and none of the data were qualified for laboratory duplicate criteria deviations.

3.2.2 Accuracy

Matrix spike sample, surrogate recovery, internal standard recovery, laboratory control samples, and calibration criteria indicate the accuracy of the data. For this sampling program, 7.46 percent of the analytical data were qualified for deviations from matrix spike recovery criteria; 0.99 percent of the data were qualified for surrogate recovery criteria deviations; 0.63 percent of the data were qualified for internal standard recovery criteria deviations; 0.20 percent of the data were qualified for laboratory control sample deviations; and 6.33 percent of the data were qualified for calibration criteria deviations.

3.2.3 Representativeness

Holding times, sample preservation, and blank analysis are indicators of the representativeness of the analytical data. For this investigation, none of the analytical data required qualification for holding time deviations; none of the analytical data required qualification for sample preservation deviations; and none of the analytical data required qualification for blank analysis deviations.

3.2.4 Comparability

Comparability is not compromised provided that the analytical methods did not change over time. A major component of comparability is the use of standard reference materials for calibration and QC. These standards are compared to other unknowns to verify their concentrations. Since standard analytical methods and reporting procedures were consistently used by the laboratory, the comparability criteria for the analytical data were met.

3.2.5 Completeness

The overall percent usability or completeness of the data was 98.82 percent.

APPENDIX A

DATA VALIDATION CHECKLISTS

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Data Validation Checklist - Part A: VOC Analysis

No:	Parameter	YES	NO	N/A
1.0	<u>Traffic Reports and Laboratory Narrative</u>			
1.1	Are the traffic Report Forms present for all samples?	X		
1.2	Do the Traffic Reports or Lab Narrative indicate any problems with sample receipt, condition of samples, analytical problems or special circumstances affecting the quality of the data?		X	
2.0	<u>Holding Times</u>			
2.1	Have any VOA technical holding times, determined from date of collection to date of analysis, been exceeded?		X	
3.0	<u>System Monitoring Compound (SMC) Recovery (Form II)</u>			
3.1	Are the VOA SMC Recovery Summaries (FORM II) present for each of the following matrices:			
	a. Low Water	X		
	b. Low Soil	X		
	c. Air			X
3.2	Are all the VOA samples listed on the appropriate System Monitoring Compound Recovery Summary for each of the following matrices:			
	a. Low Water	X		
	b. Low Soil	X		
	c. Air			X
3.3	Were outliers marked correctly with an asterisk?	X		
3.4	Was one or more VOA system monitoring compound recovery outside of contract specifications for any sample or method blank?	X		
	If yes, were samples re-analyzed?	X		
	Were method blanks re-analyzed?	X		
3.5	Are there any transcription/calculation errors between raw data and Form II?		X	
4.0	<u>Matrix Spikes (Form III)</u>			
4.1	Is the Matrix Spike/Matrix Spike Duplicate Recovery Form (Form III) present?	X		
4.2	Were matrix spikes analyzed at the required frequency for each of the following matrices?			
	a. Low Water	X		
	b. Low Soil	X		
	c. Air			X
4.3	How many VOA spike recoveries are outside QC limits?			

Data Validation Checklist - Part A: VOC Analysis

No:	Parameter	YES	NO	N/A
	Water <u> 15 </u> out of 34 Soils <u> 29 </u> out of 34			
4.4	How many RPD's for matrix spike and matrix spike duplicate recoveries are outside QC limits?			
	Water <u> 0 </u> out of 34 Soils <u> 0 </u> out of 34			
5.0	<u>Blanks (Form IV)</u>			
5.1	Is the Method Blank Summary (Form IV) present?	<u> X </u>	<u> </u>	<u> </u>
5.2	Frequency of Analysis: for the analysis of VOA TCL compounds, has a reagent/method blank been analyzed for each SDG or every 20 samples of similar matrix (low water, low soil, medium soil), whichever is more frequent?	<u> X </u>	<u> </u>	<u> </u>
5.3	Has a VOA method/instrument blank been analyzed at least once every twelve hours for each concentration level and GC/MS system used?	<u> X </u>	<u> </u>	<u> </u>
5.4	Is the chromatographic performance (baseline stability) for each instrument acceptable for VOAs?	<u> X </u>	<u> </u>	<u> </u>
6.0	<u>Contamination</u>			
6.1	Do any method/instrument/reagent blanks have positive results (TCL and/or TIC) for VOAs?	<u> </u>	<u> X </u>	<u> </u>
6.2	Do any field/trip/rinse blanks have positive VOA results (TCL and/or TIC)?	<u> X </u>	<u> </u>	<u> </u>
6.3	Are there field/rinse/equipment blanks associated with every sample?	<u> X </u>	<u> </u>	<u> </u>
7.0	<u>GC/MS Instrument Performance Check (Form V)</u>			
7.1	Are the GC/MS Instrument Performance Check Forms (Form V) present for Bromofluorobenzene (BFB)?	<u> X </u>	<u> </u>	<u> </u>
7.2	Are the enhanced bar graph spectrum and mass/charge (m/z) listing for the BFB provided for each twelve hour shift?	<u> X </u>	<u> </u>	<u> </u>
7.3	Has an instrument performance compound been analyzed for every twelve hours of sample analysis per instrument?	<u> X </u>	<u> </u>	<u> </u>
7.4	Have the ion abundances been normalized to m/z 95?	<u> X </u>	<u> </u>	<u> </u>
7.5	Have the ion abundance criteria been met for each instrument used?	<u> X </u>	<u> </u>	<u> </u>
7.6	Are there any transcription/calculation errors between mass lists and Form V's?	<u> </u>	<u> X </u>	<u> </u>
7.7	Have the appropriate number of significant figures (two) been reported?	<u> X </u>	<u> </u>	<u> </u>
7.8	Are the spectra of the mass calibration compound acceptable?	<u> X </u>	<u> </u>	<u> </u>
8.0	<u>Target Compound List (TCL) Analytes</u>			
8.1	Are the Organic Analysis Data Sheets (Form I VOA) present with required header information on each page, for each of the following:			
	a. Sample and/or fractions as appropriate?	<u> X </u>	<u> </u>	<u> </u>
	b. Matrix spikes and matrix spike duplicates?	<u> X </u>	<u> </u>	<u> </u>

Data Validation Checklist - Part A: VOC Analysis

No:	Parameter	YES	NO	N/A
	c. Blanks?	X		
8.2	Are the VOA Reconstructed Ion Chromatograms, the mass spectra for the identified compounds, and the data system printouts (Quant Reports) included in the sample package for each of the following?			
	a. Samples and/or fractions as appropriate?	X		
	b. Matrix spikes and matrix spike duplicates (Mass spectra not required)?	X		
	c. Blanks?	X		
8.3	Are the response factors shown in the Quant Report?	X		
8.4	Is the chromatographic performance acceptable with respect to:			
	Baseline stability?	X		
	Resolution?	X		
	Peak shape?	X		
	Full-scale graph (attenuation)?	X		
	Other:			X
8.5	Are the lab-generated standard mass spectra of the identified VOA compounds present for each sample?	X		
8.6	Is the RRT of each reported compound within 0.06 RRT units of the standard RRT in the continuing calibration?	X		
8.7	Are all ions in the standard mass spectrum at a relative intensity greater than 10% also present in the sample mass spectrum?	X		
8.8	Do sample and standard relative ion intensities agree within 20%?	X		
9.0	<u>Tentatively Identified Compounds (TIC)</u>			
9.1	Are all Tentatively Identified Compound Forms (Form I Part B) present; and do listed TICs include scan number or retention time, estimated concentration and "JN" qualifier?			X
9.2	Are the mass spectra for the tentatively identified compounds and associated "best match" spectra included in the sample package for each of the following:			
	a. Samples and/or fractions as appropriate?			X
	b. Blanks?			X
9.3	Are any TCL compounds (from any fraction) listed as TIC compounds?		X	
9.4	Are all ions present in the reference mass spectrum with a relative intensity greater than 10% also present in the sample mass spectrum?			X
9.5	Do TIC and "best match" standard relative ion intensities agree within 20%?			X
10.0	<u>Compound Quantitation and Reported Detection Limits</u>			

Data Validation Checklist - Part A: VOC Analysis

No:	Parameter	YES	NO	N/A
10.1	Are there any transcription/calculation errors in Form I results?	_____	X _____	_____
10.2	Are the CRQLs adjusted to reflect sample dilutions and, for soils, sample moisture?	X _____	_____	_____
11.0	<u>Standards Data (GC/MS)</u>			
11.1	Are the Reconstructed Ion Chromatograms, and data system printouts present for initial and continuing calibration?	X _____	_____	_____
12.0	<u>GC/MS Initial Calibration (Form VI)</u>			
12.1	Are the Initial Calibration Forms (Form VI) present and complete for the volatile fraction at concentrations of 10, 20, 50, 100, 200 ug/L? Are there separate calibrations for low/med soils and low soil samples?	X _____	_____	_____
12.2	Were all low level soil standards, blanks, and samples analyzed by heated purge?	X _____	_____	_____
12.3	Are the response factors stable for VOA's over the concentration range of the calibration (%Relative Standard Deviation (%RSD) <30%)	_____	X _____	_____
12.4	Are the RRFs above 0.01?	X _____	_____	_____
12.5	Are there any transcription/calculation errors in the reporting of average response factors (RRF) or %RSD?	_____	X _____	_____
13.0	<u>GC/MS Continuing Calibration (Form VII)</u>			
13.1	Are the Continuing Calibration Forms (Form VII) present and complete for the volatile fraction?	X _____	_____	_____
13.2	Has a continuing calibration standard been analyzed for every twelve hours of sample analysis per instrument?	X _____	_____	_____
13.3	Do any volatile compounds have a %Difference (%D) between the initial and continuing RRF which exceeds the +/- 25% criteria?	X _____	_____	_____
13.4	Do any volatile compounds have a RRF <0.01?	_____	X _____	_____
13.5	Are there any transcription/calculation errors in the reporting of average response factor (RRF) or %difference (%D) between initial and continuing RRFs?	_____	X _____	_____
14.0	<u>Internal Standard (Form VIII)</u>			
14.1	Are the internal standard areas (Form VIII) of every sample and blank within the upper and lower limits (-50% to +100%) for each continuing calibration?	_____	X _____	_____
14.2	Are the retention times of the internal standards within 30 seconds of the associated calibration standard?	X _____	_____	_____
15.0	<u>Field Duplicates</u>			
15.1	Were any field duplicates submitted for VOA analysis?	X _____	_____	_____

Data Validation Checklist - Part B: SVOC Analysis

No:	Parameter	YES	NO	N/A
1.0	<u>Traffic Reports and Laboratory Narrative</u>			
1.1	Are the traffic Report Forms present for all samples?	X		
1.2	Do the Traffic Reports or Lab Narrative indicate any problems with sample receipt, condition of samples, analytical problems or special circumstances affecting the quality of the data?		X	
2.0	<u>Holding Times</u>			
2.1	Have any BNA technical holding times, determined from date of collection to date of extraction, been exceeded?		X	
3.0	<u>System Monitoring Compound (SMC) Recovery (Form II)</u>			
3.1	Are the BNA Surrogate Recovery Summaries (FORM II) present for each of the following matrices:			
	a. Low Water	X		
	b. Low Soil	X		
	c. Med Soil	X		
3.2	Are all the BNA samples listed on the appropriate System Monitoring Compound Recovery Summary for each of the following matrices:			
	a. Low Water	X		
	b. Low Soil	X		
	c. Med Soil	X		
3.3	Were outliers marked correctly with an asterisk?	X		
3.4	Were two or more base neutral or acid surrogate compound recoveries out of specification for any sample or method blank?	X		
	If yes, were samples re-analyzed?	X		
	Were method blanks re-analyzed?	X		
3.5	Are there any transcription/calculation errors between raw data and Form II?		X	
4.0	<u>Matrix Spikes (Form III)</u>			
4.1	Is the Matrix Spike/Matrix Spike Duplicate Recovery Form (Form III) present?	X		
4.2	Were matrix spikes analyzed at the required frequency for each of the following matrices?			
	a. Low Water	X		
	b. Low Soil	X		
	c. Med Soil	X		
4.3	How many BNA spike recoveries are outside QC limits?			

Data Validation Checklist - Part B: SVOC Analysis

No:	Parameter	YES	NO	N/A
	Water <u> 0 </u> out of 64 Soils <u> 8 </u> out of 64			
4.4	How many RPD's for matrix spike and matrix spike duplicate recoveries are outside QC limits?			
	Water <u> 0 </u> out of 64 Soils <u> 0 </u> out of 64			
5.0	<u>Blanks (Form IV)</u>			
5.1	Is the Method Blank Summary (Form IV) present?	<u> X </u>	<u> </u>	<u> </u>
5.2	Frequency of Analysis: Has a reagent/method blank analysis been reported per 20 samples of a similar matrix, or concentration level, for each extraction batch?	<u> X </u>	<u> </u>	<u> </u>
5.3	Has a BNA method blank been analyzed for each GC/MS system used?	<u> X </u>	<u> </u>	<u> </u>
5.4	Is the chromatographic performance (baseline stability) for each instrument acceptable for BNAs?	<u> X </u>	<u> </u>	<u> </u>
6.0	<u>Contamination</u>			
6.1	Do any method/instrument/reagent blanks have positive results (TCL and/or TIC) for BNAs?	<u> X </u>	<u> </u>	<u> </u>
6.2	Do any field/rinse blanks have positive BNA results (TCL and/or TIC)?	<u> X </u>	<u> </u>	<u> </u>
6.3	Are there field/rinse/equipment blanks associated with every sample?	<u> X </u>	<u> </u>	<u> </u>
7.0	<u>GC/MS Instrument Performance Check (Form V)</u>			
7.1	Are the GC/MS Instrument Performance Check Forms (Form V) present for Decafluorotriphenylphosphine (DFTPP)?	<u> X </u>	<u> </u>	<u> </u>
7.2	Are the enhanced bar graph spectrum and mass/charge (m/z) listing for the DFTPP provided for each twelve-hour shift?	<u> X </u>	<u> </u>	<u> </u>
7.3	Has an instrument performance check solution been analyzed for every twelve hours of sample analysis per instrument?	<u> X </u>	<u> </u>	<u> </u>
7.4	Have the ion abundances been normalized to m/z 198?	<u> X </u>	<u> </u>	<u> </u>
7.5	Have the ion abundance criteria been met for each instrument used?	<u> X </u>	<u> </u>	<u> </u>
7.6	Are there any transcription/calculation errors between mass lists and Form V's?	<u> </u>	<u> X </u>	<u> </u>
7.7	Have the appropriate number of significant figures (two) been reported?	<u> X </u>	<u> </u>	<u> </u>
7.8	Are the spectra of the mass calibration compound acceptable?	<u> X </u>	<u> </u>	<u> </u>
8.0	<u>Target Compound List (TCL) Analytes</u>			
8.1	Are the Organic Analysis Data Sheets (Form I BNA) present with required header information on each page, for each of the following:			
	a. Sample and/or fractions as appropriate?	<u> X </u>	<u> </u>	<u> </u>
	b. Matrix spikes and matrix spike duplicates?	<u> X </u>	<u> </u>	<u> </u>
	c. Blanks?	<u> X </u>	<u> </u>	<u> </u>

Data Validation Checklist - Part B: SVOC Analysis

No:	Parameter	YES	NO	N/A
8.2	Has GPC cleanup been performed on all soil/sediment sample extracts?	_____	_____	X
8.3	Are the BNA Reconstructed Ion Chromatograms, the mass spectra for the identified compounds, and the data system printouts (Quant Reports) included in the sample package for each of the following?			
	a. Samples and/or fractions as appropriate?	X	_____	_____
	b. Matrix spikes and matrix spike duplicates (Mass spectra not required)?	X	_____	_____
	c. Blanks?	X	_____	_____
8.4	Are the response factors shown in the Quant Report?	X	_____	_____
8.5	Is the chromatographic performance acceptable with respect to:			
	Baseline stability?	X	_____	_____
	Resolution	X	_____	_____
	Peak shape?	X	_____	_____
	Full-scale graph (attenuation)?	X	_____	_____
	Other:			
8.6	Are the lab-generated standard mass spectra of identified BNA compounds present for each sample?	X	_____	_____
8.7	Is the RRT of each reported compound within 0.06 RRT units of the standard RRT in the continuing calibration?	X	_____	_____
8.8	Are all ions in the standard mass spectrum at a relative intensity greater than 10% also present in the sample mass spectrum?	X	_____	_____
8.9	Do sample and standard relative ion intensities agree within 20%?	X	_____	_____
9.0	<u>Tentatively Identified Compounds (TIC)</u>			
9.1	Are all Tentatively Identified Compound Forms (Form I, Part B) present; and do listed TICs include scan number or retention time, estimated concentration and "JN" qualifier?	_____	_____	X
9.2	Are the mass spectra for the tentatively identified compounds and associated "best match" spectra included in the sample package for each of the following:			
	a. Samples and/or fractions as appropriate?	_____	_____	X
	b. Blanks?	_____	_____	X
9.3	Are any TCL compounds (from any fraction) listed as TIC compounds?	_____	X	_____
9.4	Are all ions present in the reference mass spectrum with a relative intensity greater than 10% also present in the sample mass spectrum?	_____	_____	X
9.5	Do TIC and "best match" standard relative ion intensities agree within 20%?	_____	_____	X
10.0	<u>Compound Quantitation and Reported Detection Limits</u>			
10.1	Are there any transcription/calculation errors in Form I results?	_____	X	_____

Data Validation Checklist - Part B: SVOC Analysis

No:	Parameter	YES	NO	N/A
10.2	Are the CRQLs adjusted to reflect sample dilutions and, for soils, sample moisture?	X		
11.0	<u>Standards Data (GC/MS)</u>			
11.1	Are the Reconstructed Ion Chromatograms, and data system printouts present for initial and continuing calibration?	X		
12.0	<u>GC/MS Initial Calibration (Form VI)</u>			
12.1	Are the Initial Calibration Forms (Form VI) present and complete for the BNA fraction ?	X		
12.2	Are response factors stable for BNA's over the concentration range of the calibration (%Relative Standard Deviation (%RSD) <30%)		X	
12.3	Are all BNA compound RRFs > 0.01?	X		
12.4	Are there any transcription/calculation errors in the reporting of average response factors (RRF) or %RSD?		X	
13.0	<u>GC/MS Continuing Calibration (Form VII)</u>			
13.1	Are the Continuing Calibration Forms (Form VII) present and complete for the BNA fraction?	X		
13.2	Has a continuing calibration standard been analyzed for every twelve hours of sample analysis per instrument?	X		
13.3	Do any semivolatile compounds have a %Difference (%D) between the initial and continuing RRF which exceeds the +/- 25% criteria?	X		
13.4	Do any semivolatile compounds have a RRF <0.01?		X	
13.5	Are there any transcription/calculation errors in the reporting of average response factor (RRF) or %difference (%D) between initial and continuing RRFs?		X	
14.0	<u>Internal Standard (Form VIII)</u>			
14.1	Are the internal standard areas (Form VIII) of every sample and blank within the upper and lower limits (-50% to +100%) for each continuing calibration?	X		
14.2	Are the retention times of the internal standards within 30 seconds of the associated calibration standard?	X		
15.0	<u>Field Duplicates</u>			
15.1	Were any field duplicates submitted for BNA analysis?	X		

Data Validation Checklist - Part C: PCB Analysis

No:	Parameter	YES	NO	N/A
1.0	<u>Traffic Reports and Laboratory Narrative</u>			
1.1	Are the traffic Report Forms present for all samples?	X		
1.2	Do the Traffic Reports or SDG Narrative indicate any problems with sample receipt, condition of samples, analytical problems or special circumstances affecting the quality of the data?		X	
2.0	<u>Holding Times</u>			
2.1	Have any PEST/PCB technical holding times, determined from date of collection to date of extraction, been exceeded?		X	
3.0	<u>System Monitoring Compound (SMC) Recovery (Form II)</u>			
3.1	Are the PEST/PCB Surrogate Recovery Summaries (FORM II) present for each of the following matrices:			
	a. Low Water	X		
	b. Soil	X		
3.2	Are all the PEST/PCB samples listed on the appropriate Surrogate Recovery Summary for each of the following matrices:			
	a. Low Water	X		
	b. Soil	X		
3.3	Were outliers marked correctly with an asterisk?	X		
3.4	Were surrogate recoveries of TCX or DCB outside of the contract specifications for any sample or method blank? (60-150%)	X		
3.5	Were surrogate retention times (RT) within the windows established during the initial 3-point analysis of Individual Standard Mixture A?	X		
3.6	Are there any transcription/calculation errors between raw data and Form II?		X	
4.0	<u>Matrix Spikes (Form III)</u>			
4.1	Is the Matrix Spike/Matrix Spike Duplicate Recovery Form (Form III) present?	X		
4.2	Were matrix spikes analyzed at the required frequency for each of the following matrices?	X		
	a. Low Water	X		
	b. Soil			X
4.3	How many PEST/PCB spike recoveries are outside QC limits? Water <u> 0 </u> out of 7 Soils <u> 0 </u> out of 7			
4.4	How many RPD's for matrix spike and matrix spike duplicate recoveries are outside QC limits? Water <u> 0 </u> out of 7 Soils <u> 0 </u> out of 7			
5.0	<u>Blanks (Form IV)</u>			
5.1	Is the Method Blank Summary (Form IV) present?	X		

Data Validation Checklist - Part C: PCB Analysis

No:	Parameter	YES	NO	N/A
5.2	Frequency of Analysis: For the analysis of Pesticide/PCB TCL compounds, has a reagent/method blank been analyzed for each SDG or every 20 samples of similar matrix or concentration or each extraction batch, whichever is more frequent?	X		
5.3	Has a PEST/PCB instrument blank been analyzed at the beginning of every 12 hr. period following the initial calibration sequence?	X		
5.4	Is the chromatographic performance (baseline stability) for each instrument acceptable for PEST/PCBs?	X		
6.0	<u>Contamination</u>			
6.1	Do any method/instrument/reagent blanks have positive results PEST/PCBs?		X	
6.2	Do any field/rinse blanks have positive PEST/PCB results?		X	
6.3	Are there field/rinse/equipment blanks associated with every sample?	X		
7.0	<u>Calibration and GC Performance</u>			
7.1	Are the following Gas Chromatograms and Data Systems Printouts for both columns present for all samples, blanks, MS/MSD?			
	a. Peak resolution check			X
	b. Performance evaluation mixtures			X
	c. Aroclor 1016/1260	X		
	d. Aroclors 1221, 1232, 1242, 1248, 1254	X		
	e. Toxaphene			X
	f. Low points individual mixtures A & B			X
	g. Med points individual mixtures A & B			X
	h. High points individual mixtures A & B			X
	I. Instrument blanks			X
7.2	Are Forms VI - PEST 1-4 present and complete for each column and each analytical sequence?	X		
7.3	Are there any transcription/calculation errors between raw data and Forms VI?		X	
7.4	Do all standard retention times, including each pesticide in each level of Individual Mixtures A & B, fall within the windows established during the initial calibration analytical sequence?			X
7.5	Are the linearity criteria for the initial analyses of Individual Standards A & B within limits for both columns?			X
7.6	Is the resolution between any two adjacent peaks in the Resolution Check Mixture > 60.0% for both columns?			X
7.7	Is Form VII - Pest-1 present and complete for each Performance Evaluation Mixture analyzed during the analytical sequence for both columns?			X
7.8	Has the individual %breakdown exceeded 20.0% on either column?			X
	- for 4,4' - DDT?			X
	- for endrin?			X

Data Validation Checklist - Part C: PCB Analysis

No:	Parameter	YES	NO	N/A
	Has the combined %breakdown for 4,4' - DDT/Endrin exceeded 30.0% on either column?	_____	_____	X
7.9	Are the relative percent difference (RPD) values for all PEM analytes <25.0%?	_____	_____	X
7.10	Have all samples been injected within a 12 hr. Period beginning with the injection of an Instrument Blank?	X	_____	_____
7.11	Is Form VII - Pest-2 present and complete for each INDA and INDB Verification Calibration analyzed?	_____	_____	X
7.12	Are there any transcription/calculation errors between raw data and Form VII - Pest-2?	_____	X	_____
7.13	Do all standard retention times for each INDA and INDB Verification Calibration fall within the windows established by the initial calibration sequence?	_____	_____	X
7.14	Are the RPD values for all verification calibration standard compounds <25.0%?	X	_____	_____
8.0	<u>Analytical Sequence Check (Form VIII-PEST)</u>			
8.1	Is Form VIII present and complete for each column and each period of analyses?	X	_____	_____
8.2	Was the proper analytical sequence followed for each initial calibration and subsequent analyses?	X	_____	_____
9.0	<u>Cleanup Efficiency Verification (Form IX)</u>			
9.1	Is Form IX - Pest-1 present and complete for each lot of Florisil Cartridges used?	_____	_____	X
9.2	Are all samples listed on the Pesticide Florisil Cartridge Check Form?	_____	_____	X
9.3	If GPC Cleanup was performed, is Form IX - Pest-2 present?	_____	_____	X
9.4	Are percent recoveries (%R) of the pesticide and surrogate compounds used to check the efficiency of the cleanup procedures within QC limits:			
	80-120% for Florisil cartridge check?	_____	_____	X
	80-110% for GPC calibration?	_____	_____	X
10.0	<u>Pesticide/PCB Identification</u>			
10.1	Is Form X complete for every sample in which a pesticide or PCB was detected?	X	_____	_____
10.2	Are there any transcription/calculation errors between raw data and Forms 6E, 6G, 7E, 7D, 8D, 9A, 9B, 10A?	_____	X	_____
10.3	Are retention times (RT) of the sample compounds within the established windows for both analyses?	X	_____	_____
10.4	Is the percent difference (%D) calculated for the positive sample results on the two GC columns < 25.0%?	X	_____	_____
10.5	Check chromatograms for false negatives, especially the multiple peak compounds Toxaphene and PCBs. Were there any false negatives?	_____	X	_____
11.0	<u>Compound Quantitation and Reported Detection Limits</u>			
11.1	Are there any transcription/calculation errors in Form I results?	_____	X	_____
11.2	Are the CRQLs adjusted to reflect sample dilutions and, for soils, % moisture?	X	_____	_____
12.0	<u>Chromatogram Quality</u>			
12.1	Were baselines stable?	X	_____	_____

Data Validation Checklist - Part C: PCB Analysis

No:	Parameter	YES	NO	N/A
12.2	Were any electropositive displacement (negative peaks) or unusual peaks seen?	_____	X	_____
13.0	<u>Field Duplicates</u>			
13.1	Were any field duplicates submitted for PEST/PCB analysis?	X	_____	_____

Data Validation Checklist - Part D: Inorganics Analysis

No:	Parameter	YES	NO	N/A
1.0	<u>Form I to IX</u>			
1.1	Are all the Form I through Form IX labeled with:			
	Laboratory Name?	X		
	Case/SAS No.?	X		
	EPA sample No.?			X
	SDG No.?	X		
	Contract No.?	X		
	Correct units?	X		
	Matrix?	X		
1.2	Do any computer/transcription errors exceed 10% of reported values on Forms I-IX for:			
	A. All analytes analyzed by ICP?		X	
	B. All analytes analyzed by GFAA?			X
	C. All analytes analyzed by AA Flame?			X
	D. Mercury?	X		
	E. Cyanide?		X	
2.0	<u>Raw Data</u>			
2.1	Digestion Log for flame AA/ICP (Form XIII) present?	X		
2.2	Digestion Log for furnace AA (Form XIII) present?			X
2.3	Distillation Log for mercury (Form XIII) present?	X		
2.4	Distillation Log for cyanides (Form XIII) present?			X
2.5	Are pH values (pH<2 for all metals, pH>12 for cyanide) present?	X		
2.6	Percent solids calculation dates present on sample preparation logs/bench sheets?	X		
2.7	Are preparation dates present on sample preparation logs/bench sheets?	X		
2.8	Measurement read out record present?			
	A. ICP	X		
	B. Flame AA			X
	C. Furnace AA			X
	D. Mercury	X		
	E. Cyanides			X
2.9	Are all raw data to support all sample analyses and QC operations present?	X		
3.0	<u>Holding Times</u>			
3.1	A. Mercury analysis (28 days)exceeded?		X	
	B. Cyanide distillation (14 days)exceeded?			X
	C. Other Metals analysis (6 months)exceeded?		X	
3.2	Is pH of aqueous samples for:			
	A. Metals Analysis >2?		X	
	B. Cyanides Analysis <12?			X

Data Validation Checklist - Part D: Inorganics Analysis

No:	Parameter	YES	NO	N/A
4.0	<u>Form I (Final Data)</u>			
4.1	Are all Forms I's present and complete?	X		
4.2	Are correct units (ug/l for waters and mg/kg for soils) indicated on Form I's?	X		
4.3	Are soil sample results for each parameter corrected for percent solids?	X		
4.4	Are all "less than IDL" values properly coded with "U"?	X		
4.5	Are the correct concentration qualifiers used with final data?	X		
4.6	Are EPA sample #s and corresponding laboratory sample ID #s the same as on the Cover Page, Form I's and in the raw data?	X		
4.7	Was a brief physical description of samples given on Form I's?	X		
4.8	Was the dilution of any sample diluted beyond the requirements of the contract noted on Form I or Form XIV?		X	
5.0	<u>Calibration</u>			
5.1	Is record of at least 2 point calibration present for ICP analysis?	X		
5.2	Is record of 5 point calibration present for Hg analysis?	X		
5.3	Is record of 4 point calibration present for:			X
	Flame AA?			X
	Furnace AA?			X
	Cyanides?			X
5.4	Is one calibration standard at the CRDL level for all AA (except Hg) and cyanides analyses?	X		
5.5	Is correlation coefficient less than 0.995 for:			
	Mercury Analysis?		X	
	Cyanide Analysis?			X
	Atomic Absorption Analysis?			X
5.6	In the instance where less than 4 standards are measured in absorbance (or peak area, peak height, etc.) Mode, are remaining standards analyzed in concentration mode immediately after calibration within +/- 10% of the true values?			X
6.0	<u>Form II A (Initial and Continuing Calibration Verification)</u>			
6.1	Present and complete for every metal and cyanide?	X		
6.2	Present and complete for AA ICP when both are used for the same analyte?			X
6.3	Are all calibration standards (initial and continuing) within control limits:			
	Metals - 90 - 110 %R	X		
	Hg - 80 - 120 %R	X		
	Cyanides - 85 - 115 %R			X
6.4	Was continuing calibration performed every 10 samples or every 2 hours?	X		
6.5	Was ICV for cyanides distilled?			X
7.0	<u>Form II B (CRDL Standards for AA and ICP)</u>			

Data Validation Checklist - Part D: Inorganics Analysis

No:	Parameter	YES	NO	N/A
7.1	Was a CRDL standard (CRA) analyzed after initial calibration for all AA metals (except Hg)?	X		
7.2	Was a mid range calibration verification standard distilled and analyzed for cyanide analysis?	X		
7.3	Was a 2xCRDL (or 2xIDL when IDL>CRDL) analyzed (CRI) for each ICP run?	X		
7.4	Was CRI analyzed after ICV/ICB and before the final CCV/CCB, and twice every eight hours of ICP run?	X		
7.5	Are CRA and CRI standards within control limits: Metals 70 – 130 %R?	X		
7.6	Is mid-range standard within control limits: Cyanide 70 - 130 %R?			X
8.0	<u>Form III (Initial and Continuing Calibration Blanks)</u>			
8.1	Present and complete?	X		
8.2	For both AA and ICP when both are used for the same analyte?			X
8.3	Was an initial calibration blank analyzed?	X		
8.4	Was a continuing calibration blank analyzed after every 10 samples or every 2 hours (whichever is more frequent)?	X		
8.5	Are all calibration blanks (when IDL<CRDL) less than or equal to the Contract Required Detection Limits (CRDLs)?	X		
8.6	Are all calibration blanks less than two times Instrument Detection Limit (when IDL>CRDL)?			X
9.0	<u>Form III (Preparation Blank)</u>			
9.1	Was one preparation blank analyzed for: each Sample Delivery Group?	X		
9.2	Is concentration of preparation blank value greater than the CRDL when IDL is less than or equal to CRDL?			X
9.3	If yes, is the concentration of the sample with the least concentrated analyte less than 10 times the preparation blank?			X
9.4	Is concentration of preparation blank value (Form III) less than two times IDL, when IDL is greater than CRDL?			X
9.5	Is concentration of preparation blank below the negative CRDL?		X	
10.0	<u>Form IV (Interference Check Sample)</u>			
10.1	Present and Complete?	X		
10.2	Are all Interference Check Sample results inside the control limits (+/- 20%)?	X		
10.3	If no, is concentration of Al, Ca, Fe, or Mg lower than the respective concentration in ICS?			X
11.0	<u>Form V A (Spiked Sample recovery - Pre-Digestion/Pre-Distillation)</u>			
11.1	Present and complete for:			
	each SDG?	X		
	each matrix type?	X		
	each concentration range (i.e., low, medium, high)?	X		
	For both AA and ICP when both are used for the same analyte?			X
11.2	Was field blank used for spiked sample?		X	

Data Validation Checklist - Part D: Inorganics Analysis

No:	Parameter	YES	NO	N/A
11.3	Are all recoveries within control limits?	_____	X	_____
11.4	If no, is sample concentration greater than or equal to four times spike concentration?	_____	X	_____
12.0	<u>Form VI (Lab Duplicates)</u>			
12.1	Present and complete for :			
	each SDG?	X	_____	_____
	each matrix type?	X	_____	_____
	each concentration range (i.e., low, medium, high)?	X	_____	_____
	both AA and ICP when both are used for the same analyte?	_____	_____	X
12.2	Was field blank used for duplicate analysis?	_____	X	_____
12.3	Are all values within control limits (RPD 20% or difference \leq +/-CRDL)?	X	_____	_____
12.4	If no, are all results outside the control limits flagged with an * on Form I's and VI?	_____	_____	X
13.0	<u>Field Duplicates</u>			
13.1	Were field duplicates analyzed?	X	_____	_____
13.2	<u>Aqueous</u>			
	Is any RPD greater than 50% where sample and duplicate are both greater than or equal to 5 times CRDL?	X	_____	_____
	Is any difference between sample and duplicate greater than CRDL where sample and/or duplicate is less than 5 times CRDL?	_____	X	_____
13.3	<u>Soil/Sediment</u>			
	Is any RPD (where sample and duplicate are both greater than 5 times CRDL): >100%?	X	_____	_____
	Is any difference between sample and duplicate (where sample and/or duplicate is less than 5x CRDL): >2x CRDL?	_____	_____	X
14.0	<u>Form VII (Laboratory Control Sample)</u>			
14.1	Was one LCS prepared and analyzed for:			
	each SDG?	X	_____	_____
	each batch samples digested/distilled?	X	_____	_____
	both AA and ICP when both are used for the same analyte?	_____	_____	X
14.2	<u>Aqueous LCS</u>			
	Is any LCS recovery:			
	less than 50%?	_____	X	_____
	between 50% and 79%?	_____	X	_____
	between 121% and 150%?	_____	X	_____
	greater than 150%?	_____	X	_____
14.3	<u>Solid LCS</u>			
	Is LCS "Found" value higher than the control limits on Form VII?	_____	X	_____
	Is LCS "Found" value lower than the control limits on Form VII?	_____	X	_____
15.0	<u>Form IX (ICP Serial Dilution)</u>			
15.1	Was serial dilution analysis performed for:			

Data Validation Checklist - Part D: Inorganics Analysis

No:	Parameter	YES	NO	N/A
	each SDG?	X		
	each matrix type?	X		
	each concentration range (i.e., low, medium, high)?	X		
15.2	Was field blank(s) used for Serial Dilution Analysis?		X	
15.3	Are results outside control limit flagged with an "E" on Form I's and Form IX when initial concentration on Form IX is equal to 50 times IDL or greater?		X	
15.4	Are any % difference values:			
	>10%	X		
	>=100%		X	
16.0	<u>Furnace Atomic Absorption (AA) QC Analysis</u>			
16.1	Are duplicate injections present in furnace raw data for each sample analyzed by GFAA?			X
16.2	Do the duplicate injection readings agree within 20% Relative Standard Deviation (RSD) or Coefficient of Variation (CV) for concentration greater than CRDL?			X
16.3	Was a dilution analyzed for sample with analytical spike recovery less than 40%?			X
16.4	Is analytical spike recovery outside the control limits (85 - 115%) for any sample?			X
17.0	<u>Form VIII (Method of Standard Addition Results)</u>			
17.1	Present?			X
17.2	If no, is any Form I result coded with "S" or a "+"?			X
17.3	Is coefficient of correlation for MSA less than 0.990 for any sample?			X
17.4	Was MSA required for any sample but not performed?			X
17.5	Is coefficient of correlation for MSA less than 0.995?			X
17.6	Are MSA calculations outside the linear range of the calibration curve generated at the beginning of the analytical run?			X
17.7	Was proper Quantitation procedure followed correctly as outlined in the SOW on page E-23?			X
18.0	<u>Dissolved/Total or Inorganic/Total Analytes</u>			
18.1	Were any analyses performed for dissolved as well as total analytes on the same sample(s)?		X	
18.2	Were any analyses performed for inorganic as well as total (organic and inorganic) analytes on the same sample(s)?	X		
18.3	Is the concentration of any dissolved (or inorganic) analyte greater than its total concentration by more than 10%?		X	
18.4	Is the concentration of any dissolved (or inorganic) analyte greater than its total concentration by more than 50%?		X	
19.0	<u>Form I (Field Blank)</u>			
19.1	Is field blank concentration less than CRDL (or 2 x IDL when IDL>CRDL) for all parameters of associated aqueous and soil samples?		X	
19.2	If no, was field blank value already rejected due to other QC criteria?			X
20.0	<u>Form X, XI, XII (Verification of Instrumental Parameters)</u>			

Data Validation Checklist - Part D: Inorganics Analysis

No:	Parameter	YES	NO	N/A
20.1	Is verification report present for:			
	Instrument Detection Limits (quarterly)?	X		
	ICP Interelement Correction Factors (annually)?	X		
	ICP Linear Ranges (quarterly)?	X		
21.0	<u>Form X (Instrument Detection Limits)</u>			
21.1	Are IDLs present for:			
	all the analytes?	X		
	all the instruments used?	X		
	For both AA and ICP when both are used for the same analyte?			X
21.2	Is IDL greater than CRDL for any analytes?		X	
21.3	If yes, is the concentration on Form I of the sample analyzed on the instrument whose IDL exceeds CRDL, greater than 5 x IDL?			X
22.0	<u>Form XI (Linear Ranges)</u>			
22.1	Was any sample result higher than the high linear range of ICP?		X	
22.2	Was any sample result higher than the highest calibration standard for non-ICP parameters?		X	
22.3	If yes for any of the above, was the sample diluted to obtain the result on Form I?			X
23.0	<u>Percent Solids of Sediments</u>			
23.1	Are percent solids in sediment(s):			
	<50%?		X	
	<10%?		X	

Technical Report for

Barton & Loguidice

Auburn EPA Brownfield Phase II, Auburn, NY

554-046-001

Accutest Job Number: MC21383

Sampling Dates: 05/28/13 - 05/31/13

Report to:

Barton & Loguidice

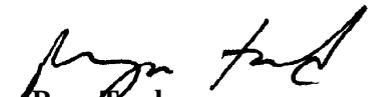
glesniak@bartonandloguidice.com

ATTN: Greg Lesniak

Total number of pages in report: **214**



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



Reza Fand
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) ISO 17025:2005 (L2235)

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Test results relate only to samples analyzed.

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Highlighted samples collected
at 41-55 Washington Street

Note: Samples MC21383-1 to MC21383-15 were collected on 41-55 Washington Street.

Sample Summary

Barton & Loguidice

Job No: MC21383

Auburn EPA Brownfield Phase II, Auburn, NY
Project No: 554-046-001

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
MC21383-1	05/28/13	10:24 BL	06/01/13	SO	Soil	SB-1 6-7'
MC21383-2	05/28/13	10:50 BL	06/01/13	SO	Soil	SB-2 9-10.8'
MC21383-3	05/28/13	11:25 BL	06/01/13	SO	Soil	SB-3 9-10'
MC21383-4	05/28/13	11:45 BL	06/01/13	SO	Soil	SB-4 7-7.8'
MC21383-5	05/28/13	12:15 BL	06/01/13	SO	Soil	SB-5 10-12'
MC21383-5D	05/28/13	12:15 BL	06/01/13	SO	Soil Dup/MSD	SB-5 10-12'
MC21383-5S	05/28/13	12:15 BL	06/01/13	SO	Soil Matrix Spike	SB-5 10-12'
MC21383-6	05/28/13	12:45 BL	06/01/13	SO	Soil	SB-6 2-4'
MC21383-7	05/28/13	12:50 BL	06/01/13	SO	Soil	SB-6 7-9'
MC21383-8	05/28/13	00:00 BL	06/01/13	SO	Soil	DUP-1
MC21383-9	05/29/13	16:15 BL	06/01/13	SO	Soil	SB-7 8.5-9.5'
MC21383-10	05/29/13	16:05 BL	06/01/13	SO	Soil	SB-7 13-14'
MC21383-11	05/29/13	16:34 BL	06/01/13	SO	Soil	SB-8 13-13.8'

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

Sample Summary (continued)

Barton & Loguidice

Job No: MC21383

Auburn EPA Brownfield Phase II, Auburn, NY
Project No: 554-046-001

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
MC21383-12	05/29/13	16:45 BL	06/01/13	SO	Soil	SB-9 12-13.8'
MC21383-13	05/30/13	08:35 BL	06/01/13	AQ	Equipment Blank	EQUIP BLANK 1
MC21383-14	05/30/13	09:05 BL	06/01/13	SO	Soil	SB-10 11-12'
MC21383-15	05/30/13	09:20 BL	06/01/13	SO	Soil	SB-11 7-8.3'
MC21383-16	05/30/13	16:05 BL	06/01/13	SO	Soil	42WADS SB-1 1-2'
MC21383-17	05/30/13	16:30 BL	06/01/13	SO	Soil	42WADS SB-2 3-4.5'
MC21383-18	05/31/13	08:30 BL	06/01/13	SO	Soil	42WADS SB-3 3.5-4.6'
MC21383-19	05/31/13	09:20 BL	06/01/13	SO	Soil	42WADS SB-4 1-2'
MC21383-20	05/31/13	09:30 BL	06/01/13	SO	Soil	42WADS SB-4 10-11'
MC21383-21	05/31/13	10:30 BL	06/01/13	SO	Soil	42WADS SB-6 1.5-2.5'
MC21383-22	05/31/13	10:35 BL	06/01/13	SO	Soil	42WADS SB-6 8-10'
MC21383-23	05/31/13	11:10 BL	06/01/13	SO	Soil	42WADS SB-7 1.5-2.5'
MC21383-24	05/31/13	12:05 BL	06/01/13	SO	Soil	42WADS SB-8 17.5-18.7'

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



Sample Summary (continued)

Barton & Loguidice

Job No: MC21383

**Auburn EPA Brownfield Phase II, Auburn, NY
Project No: 554-046-001**

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
MC21383-25	05/31/13	12:50 BL	06/01/13	SO	Soil	42WADS SB-9 11-12'
MC21383-26	05/31/13	14:00 BL	06/01/13	AQ	Trip Blank Water	TRIP BLANK
MC21383-27	05/31/13	14:01 BL	06/01/13	AQ	Trip Blank Water	TRIP BLANK

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

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Barton & Loguidice

Job No MC21383

Site: Auburn EPA Brownfield Phase II, Auburn, NY

Report Date 7/11/2013 12:57:09 PM

25 Sample(s), 2 Trip Blank(s) and 0 Field Blank(s) were collected on between 05/28/2013 and 05/31/2013 and were received at Accutest on 06/01/2013 properly preserved, at 1.5 Deg. C and intact. These Samples received an Accutest job number of MC21383. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

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

Volatiles by GCMS By Method SW846 8260B

Matrix: AQ

Batch ID: MSP2262

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC21333-22MS, MC21333-22MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- MSP2262-BS for Chloromethane are outside control limits. Blank Spike meets program technical requirements.
- MC21333-22MSD for Chloromethane are outside control limits due to possible matrix interference. Refer to Blank Spike.
- MSP2262-BS, MC21333-22MSD for Carbon tetrachloride: Outside control limits. Associated samples are non-detect for this compound.
- Initial calibration verification MSP2257-ICV2257 for acetone exceeds 50% Difference. Acetone is within criteria in continuing calibration check MSP2262-CC2257.

Matrix: SO

Batch ID: MSM1949

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC21383-5MS, MC21383-5MSD were used as the QC samples indicated.
- MC21383-5MS for 2-Butanone (MEK), 2-Hexanone, 4-Methyl-2-pentanone (MIBK), Acetone are outside control limits due to possible matrix interference. Refer to Blank Spike.
- MC21383-5MSD for 1,1,2,2-Tetrachloroethane, 2-Butanone (MEK), 2-Hexanone, 4-Methyl-2-pentanone (MIBK), Acetone are outside control limits due to possible matrix interference. Refer to Blank Spike.
- MC21383-2, -3, -8: Confirmation run.
- MC21383-2, -3 for 4-Bromofluorobenzene, Toluene-D8: Outside control limits due to possible matrix interference. Confirmed by reanalysis.
- MC21383-5 has internal standard recovery(s) outside control limits due to possible matrix interference. Confirmed by MS/MSD.
- MC21383-2, -6, -7, MC21383-5MSD have internal standard recovery(s) outside control limits. Target analytes not associated with this internal standard.
- Initial calibration verification MSM1899-ICV1899 for acetone exceeds 50% Difference. Acetone is within criteria in continuing calibration check MSM1949-CC1899, MSM1951-CC1899, MSM1952-CC1899, MSM1953-CC1899.
- MC21383-2, -3, -8 have internal standard recovery(s) outside control limits due to possible matrix interference. Confirmed by reanalysis.

Matrix: SO

Batch ID: MSM1951

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC21507-1MS, MC21507-1MSD were used as the QC samples indicated.

Volatiles by GCMS By Method SW846 8260B

Matrix: SO

Batch ID: MSM1951

- MC21507-1MS for 1,1,1-Trichloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,2-Dichloroethane, 1,2-Dichloropropane, Acetone, Benzene, Bromodichloromethane, Carbon disulfide, Chlorobenzene, Chloroform, cis-1,2-Dichloroethene, cis-1,3-Dichloropropene, Dibromochloromethane, Ethylbenzene, Methylene chloride, Styrene, Tetrachloroethene, Toluene, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene, Trichloroethene, Xylene (total) are outside control limits due to possible matrix interference. Refer to Blank Spike
- RPD(s) for MC21507-1MSD for Acetone are outside control limits. High RPD due to possible matrix interference and/or sample non-homogeneity.
- MC21383-3 for Toluene-D8, 4-Bromofluorobenzene: Outside control limits due to possible matrix interference. Confirmed by reanalysis.
- MSM1951-BSD for 2-Hexanone are outside control limits. Blank Spike meets program technical requirements.
- MC21383-8, MSM1951-BSD have internal standard recovery(s) outside control limits. Target analytes not associated with this internal standard.
- MC21383-2, -3, -8, -12 have internal standard recovery(s) outside control limits due to possible matrix interference. Confirmed by reanalysis.

Matrix: SO

Batch ID: MSM1952

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC21534-9MS, MC21534-9MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- MSM1952-BS for 2-Hexanone, 4-Methyl-2-pentanone (MIBK), Bromoform are outside control limits. Blank Spike meets program technical requirements.
- MC21534-9MS for cis-1,2-Dichloroethene, Styrene, Vinyl chloride are outside control limits due to possible matrix interference. Refer to Blank Spike .
- MC21534-9MSD for Styrene, Vinyl chloride are outside control limits due to possible matrix interference. Refer to Blank Spike.
- MC21383-12: Confirmation run.
- MC21383-12 for Toluene-D8: Outside control limits due to possible matrix interference. Confirmed by reanalysis.
- MSM1952-BS for 1,1,2,2-Tetrachloroethane: Outside control limits. Associated samples are non-detect for this compound.
- MC21383-12 has internal standard recovery(s) outside control limits due to possible matrix interference. Confirmed by reanalysis.

Matrix: SO

Batch ID: MSM1953

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC21556-4MS, MC21556-4MSD were used as the QC samples indicated.
- MSM1953-BS for 2-Hexanone are outside control limits. Blank Spike meets program technical requirements.
- MC21556-4MS for 1,1,2,2-Tetrachloroethane, 2-Butanone (MEK), 2-Hexanone, 4-Methyl-2-pentanone (MIBK) are outside control limits due to possible matrix interference. Refer to Blank Spike.
- MC21556-4MSD for 1,1,2,2-Tetrachloroethane, 2-Hexanone, 4-Methyl-2-pentanone (MIBK) are outside control limits due to possible matrix interference. Refer to Blank Spike.

Matrix: SO

Batch ID: MSM1954

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC21383-25MS, MC21383-25MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- MC21383-25MS for 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,2-Dichloroethane, 1,2-Dichloropropane, Acetone, Bromodichloromethane, Bromoform, Chlorobenzene, cis-1,2-Dichloroethene, cis-1,3-Dichloropropene, Dibromochloromethane, Ethylbenzene, Styrene, trans-1,3-Dichloropropene, Trichloroethene, Vinyl chloride, Xylene (total) are outside control limits due to possible matrix interference. Refer to Blank Spike.
- MC21383-25MSD for 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,2-Dichloroethane, Acetone, Bromoform, Chlorobenzene, cis-1,2-Dichloroethene, cis-1,3-Dichloropropene, Dibromochloromethane, Ethylbenzene, Styrene, trans-1,3-Dichloropropene, Xylene (total) are outside control limits due to possible matrix interference. Refer to Blank Spike.
- MC21383-25MS/MSD have internal standard recovery(s) outside control limits. Target analytes not associated with this internal standard.

Volatiles by GCMS By Method SW846 8260B

Matrix: SO

Batch ID: MSM1954

- Continuing calibration check standard MSM1954-CC1899 for Acetone exceeds 50% Difference (results biased high). Associated samples are non-detect for this compound.

Extractables by GCMS By Method SW846 8270C

Matrix: AQ

Batch ID: OP33514

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- RPD(s) for OP33514-MSD for Hexachloroethane, Hexachlorocyclopentadiene, Hexachlorobutadiene are outside control limits. Blank Spike meets program technical requirements..
- OP33514-BS for 4-Nitrophenol, Phenol, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Dimethyl phthalate, Hexachlorobutadiene, Hexachlorocyclopentadiene, Hexachloroethane are outside control limits. Blank Spike meets program technical requirements.
- OP33514-MS for 4-Nitrophenol, Phenol, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Dimethyl phthalate, Hexachlorobutadiene, Hexachlorocyclopentadiene, Hexachloroethane are outside control limits. Blank Spike meets program technical requirements.
- OP33514-MSD for 4-Nitrophenol, Dimethyl phthalate, Hexachlorocyclopentadiene, Hexachloroethane are outside control limits. Blank Spike meets program technical requirements.

Matrix: SO

Batch ID: OP33526

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC21383-1MS, MC21383-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC21383-1, MC21383-10, MC21383-2, MC21383-3, MC21383-4, MC21383-6, MC21383-7, MC21383-8, MC21383-9 have compounds reported with "D" qualifiers indicating results from the diluted analysis.
- OP33526-MS/MSD for 2,4-Dinitrophenol are outside control limits due to possible matrix interference. Refer to Blank Spike.

Matrix: SO

Batch ID: OP33529

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC21383-5MS, MC21383-5MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- OP33529-MS/MSD for 2,4-Dinitrophenol are outside control limits due to possible matrix interference. Refer to Blank Spike.
- MC21383-21: Confirmation run for surrogate recoveries.
- MC21383-19: Elevated RL due to dilution required for matrix interference.
- MC21383-15, -23 for 2,4,6-Tribromophenol: Outside control limits due to possible matrix interference. Confirmed by re-extraction/reanalysis.
- MC21383-23 for Nitrobenzene-d5: Outside control limits due to possible matrix interference. Confirmed by re-extraction/reanalysis.
- MC21383-21 for 2,4,6-Tribromophenol: Outside control limits due to possible matrix interference. Confirmed by reanalysis.

Matrix: SO

Batch ID: OP33716

- MC21383-15, -23: Confirmation run.
- MC21383-23 for Nitrobenzene-d5: Outside control limits due to possible matrix interference. Confirmed by re-extraction/reanalysis.
- MC21383-15 for 2,4,6-Tribromophenol: Outside control limits due to possible matrix interference. Confirmed by re-extraction/reanalysis.

Extractables by GC By Method SW846 8082

Matrix: AQ

Batch ID: OP33497

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC21300-23MS, MC21300-23MSD, OP33497-MSMSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Matrix: SO

Batch ID: OP33536

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC21383-1MS, MC21383-1MSD, OP33536-MSMSD were used as the QC samples indicated.
- Calibration check standard GBB2902-CC2897, file BB48639, for Aroclor 1260 exceeds criteria (response bias high). Associated sample is non-detect for this compound.

Matrix: SO

Batch ID: OP33538

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC21383-5MS, MC21383-5MSD, OP33538-MSMSD were used as the QC samples indicated.

Metals By Method SW846 6010C

Matrix: AQ

Batch ID: MP21106

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC21372-1MS, MC21372-1MSD, MC21372-1SDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Beryllium, Cadmium, Thallium are outside control limits for sample MP21106-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

Matrix: SO

Batch ID: MP21149

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC21383-5MSD, MC21383-5PS, MC21383-5SDL, MC21383-5MS, MC21383-5MSD were used as the QC samples for metals.
- Matrix Spike Recovery(s) for Antimony are outside control limits. Spike recovery indicates possible matrix interference and/or sample nonhomogeneity. Post spike within acceptable range.
- Matrix Spike Duplicate Recovery(s) for Antimony, Nickel are outside control limits. Spike duplicate recovery indicates possible matrix interference and/or sample nonhomogeneity.
- Matrix Spike, Matrix Spike Duplicate Recovery(s) for Calcium, Aluminum, Iron, Manganese are outside control limits. Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.
- RPD(s) for MSD for Cobalt, Iron, Manganese, Nickel, Zinc are outside control limits for sample MP21149-S2. High RPD due to possible matrix interference and/or sample non-homogeneity.
- RPD(s) for Serial Dilution for Arsenic, Cadmium are outside control limits for sample MP21149-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- MP21149-SD1 for Cobalt, Sodium: Serial Dilution RPD acceptable due to low duplicate and sample concentrations.
- MP21149-SD1 for Chromium, Iron, Magnesium, Manganese, Nickel, Vanadium, Zinc: Serial dilution indicates possible matrix interference.

Matrix: SO

Batch ID: MP21154

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC21383-16MS, MC21383-16MSD, MC21383-16PS, MC21383-16SDL were used as the QC samples for metals.
- Matrix Spike Recovery(s) for Aluminum are outside control limits. Spike recovery indicates possible matrix interference and/or sample nonhomogeneity. Post spike within acceptable range.
- Matrix Spike Recovery(s) for Magnesium, Iron are outside control limits. Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.
- RPD(s) for Serial Dilution for Arsenic, Beryllium are outside control limits for sample MP21154-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- Matrix Spike Duplicate Recovery(s) for Calcium, Magnesium, Iron are outside control limits. Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.
- MP21154-SD1 for Zinc: Serial dilution indicates possible matrix interference.

Metals By Method SW846 7470A

Matrix: AQ

Batch ID: MP21128

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC21355-2MS, MC21355-2MSD were used as the QC samples for metals.

Metals By Method SW846 7471B

Matrix: SO	Batch ID: MP21118
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- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC21383-5MS, MC21383-5MSD were used as the QC samples for metals.

Matrix: SO	Batch ID: MP21134
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- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC21507-2MS, MC21507-2MSD were used as the QC samples for metals.

Wet Chemistry By Method SM21 2540 B MOD.

Matrix: SO	Batch ID: GN43121
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- Sample(s) JB36662-6RDUP were used as the QC samples for Solids, Percent.

Matrix: SO	Batch ID: GN43122
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- Sample(s) MC21383-20DUP were used as the QC samples for Solids, Percent.

Matrix: SO	Batch ID: GN43135
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- Sample(s) MC21383-24DUP were used as the QC samples for Solids, Percent.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety. The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(MC21383).

Summary of Hits

Job Number: MC21383
 Account: Barton & Loguidice
 Project: Auburn EPA Brownfield Phase II, Auburn, NY
 Collected: 05/28/13 thru 05/31/13



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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MC21383-1 SB-1 6-7'

Benzene	0.50	0.50	0.29	ug/kg	SW846 8260B
1,1,1-Trichloroethane	0.51 J	2.0	0.32	ug/kg	SW846 8260B
Benzo(a)anthracene	42.2 J	120	15	ug/kg	SW846 8270C
Benzo(a)pyrene	30.2 J	120	13	ug/kg	SW846 8270C
Benzo(b)fluoranthene	35.0 J	120	15	ug/kg	SW846 8270C
Benzo(g,h,i)perylene	29.7 J	120	12	ug/kg	SW846 8270C
Benzo(k)fluoranthene	18.1 J	120	18	ug/kg	SW846 8270C
Chrysene	36.4 J	120	15	ug/kg	SW846 8270C
bis(2-Ethylhexyl)phthalate	128 J	290	11	ug/kg	SW846 8270C
Fluoranthene	67.7 J	120	16	ug/kg	SW846 8270C
Indeno(1,2,3-cd)pyrene	20.9 J	120	13	ug/kg	SW846 8270C
Phenanthrene	56.4 J	120	16	ug/kg	SW846 8270C
Pyrene	66.3 J	120	14	ug/kg	SW846 8270C
Aroclor 1254	53.4	37	27	ug/kg	SW846 8082
Aluminum	9670	20	3.5	mg/kg	SW846 6010C
Arsenic	5.2	0.98	0.20	mg/kg	SW846 6010C
Barium	439	4.9	0.071	mg/kg	SW846 6010C
Beryllium	0.47	0.39	0.023	mg/kg	SW846 6010C
Cadmium	0.43	0.39	0.041	mg/kg	SW846 6010C
Calcium	132000	4900	62	mg/kg	SW846 6010C
Chromium	11.6	0.98	0.093	mg/kg	SW846 6010C
Cobalt	4.8 B	4.9	0.046	mg/kg	SW846 6010C
Copper	42.9	2.5	0.54	mg/kg	SW846 6010C
Iron	9900	9.8	0.85	mg/kg	SW846 6010C
Lead	122	0.98	0.16	mg/kg	SW846 6010C
Magnesium	15800	490	5.0	mg/kg	SW846 6010C
Manganese	318	1.5	0.039	mg/kg	SW846 6010C
Mercury	0.036	0.036	0.010	mg/kg	SW846 7471B
Nickel	11.3	3.9	0.043	mg/kg	SW846 6010C
Potassium	1620	490	8.4	mg/kg	SW846 6010C
Selenium	0.52 B	0.98	0.34	mg/kg	SW846 6010C
Sodium	715	490	3.2	mg/kg	SW846 6010C
Vanadium	21.7	0.98	0.13	mg/kg	SW846 6010C
Zinc	314	2.0	0.16	mg/kg	SW846 6010C

MC21383-2 SB-2 9-10.8'

Carbon disulfide	0.75 J	5.5	0.18	ug/kg	SW846 8260B
Benzo(a)anthracene	36.8 J	100	13	ug/kg	SW846 8270C
Benzo(a)pyrene	23.5 J	100	11	ug/kg	SW846 8270C
Benzo(b)fluoranthene	28.7 J	100	13	ug/kg	SW846 8270C
Chrysene	29.3 J	100	13	ug/kg	SW846 8270C
bis(2-Ethylhexyl)phthalate	61.1 J	260	9.5	ug/kg	SW846 8270C

Summary of Hits

Job Number: MC21383
 Account: Barton & Loguidice
 Project: Auburn EPA Brownfield Phase II, Auburn, NY
 Collected: 05/28/13 thru 05/31/13



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
		60.6 J	100	14	ug/kg	SW846 8270C
		69.7 J	100	17	ug/kg	SW846 8270C
		32.2 J	100	14	ug/kg	SW846 8270C
		52.4 J	100	12	ug/kg	SW846 8270C
		3060	20	3.5	mg/kg	SW846 6010C
		2.7	0.98	0.20	mg/kg	SW846 6010C
		43.7	4.9	0.071	mg/kg	SW846 6010C
		0.20 B	0.39	0.023	mg/kg	SW846 6010C
		151000	4900	61	mg/kg	SW846 6010C
		5.9	0.98	0.093	mg/kg	SW846 6010C
		3.6 B	4.9	0.046	mg/kg	SW846 6010C
		7.8	2.4	0.54	mg/kg	SW846 6010C
		7790	9.8	0.85	mg/kg	SW846 6010C
		4.0	0.98	0.16	mg/kg	SW846 6010C
		44100	490	5.0	mg/kg	SW846 6010C
		285	1.5	0.039	mg/kg	SW846 6010C
		8.0	3.9	0.043	mg/kg	SW846 6010C
		860	490	8.3	mg/kg	SW846 6010C
		146 B	490	3.2	mg/kg	SW846 6010C
		7.3	0.98	0.13	mg/kg	SW846 6010C
		15.8	2.0	0.16	mg/kg	SW846 6010C

MC21383-3 SB-3 9-10'

		1.0 J	3.7	0.12	ug/kg	SW846 8260B
		2860	20	3.6	mg/kg	SW846 6010C
		4.7	1.0	0.21	mg/kg	SW846 6010C
		44.5	5.0	0.073	mg/kg	SW846 6010C
		0.18 B	0.40	0.024	mg/kg	SW846 6010C
		213000	5000	63	mg/kg	SW846 6010C
		5.6	1.0	0.095	mg/kg	SW846 6010C
		4.8 B	5.0	0.047	mg/kg	SW846 6010C
		6.4	2.5	0.56	mg/kg	SW846 6010C
		8280	10	0.87	mg/kg	SW846 6010C
		10.6	1.0	0.17	mg/kg	SW846 6010C
		35300	500	5.1	mg/kg	SW846 6010C
		264	1.5	0.040	mg/kg	SW846 6010C
		0.034	0.032	0.0092	mg/kg	SW846 7471B
		11.4	4.0	0.044	mg/kg	SW846 6010C
		1110	500	8.6	mg/kg	SW846 6010C
		182 B	500	3.3	mg/kg	SW846 6010C
		9.0	1.0	0.13	mg/kg	SW846 6010C
		13.0	2.0	0.16	mg/kg	SW846 6010C

Summary of Hits

Job Number: MC21383
Account: Barton & Loguidice
Project: Auburn EPA Brownfield Phase II, Auburn, NY
Collected: 05/28/13 thru 05/31/13



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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MC21383-4 SB-4 7-7.8'

Benzene	0.22 J	0.38	0.22	ug/kg	SW846 8260B
Aluminum	3830	20	3.6	mg/kg	SW846 6010C
Arsenic	5.4	0.99	0.21	mg/kg	SW846 6010C
Barium	26.2	5.0	0.072	mg/kg	SW846 6010C
Beryllium	0.29 B	0.40	0.024	mg/kg	SW846 6010C
Cadmium	0.20 B	0.40	0.042	mg/kg	SW846 6010C
Calcium	127000	5000	62	mg/kg	SW846 6010C
Chromium	7.0	0.99	0.094	mg/kg	SW846 6010C
Cobalt	5.5	5.0	0.047	mg/kg	SW846 6010C
Copper	13.0	2.5	0.55	mg/kg	SW846 6010C
Iron	10500	9.9	0.86	mg/kg	SW846 6010C
Lead	6.1	0.99	0.17	mg/kg	SW846 6010C
Magnesium	33000	500	5.1	mg/kg	SW846 6010C
Manganese	573	1.5	0.040	mg/kg	SW846 6010C
Mercury	0.042	0.035	0.010	mg/kg	SW846 7471B
Nickel	12.9	4.0	0.044	mg/kg	SW846 6010C
Potassium	984	500	8.5	mg/kg	SW846 6010C
Sodium	113 B	500	3.3	mg/kg	SW846 6010C
Vanadium	9.8	0.99	0.13	mg/kg	SW846 6010C
Zinc	48.7	2.0	0.16	mg/kg	SW846 6010C

MC21383-5 SB-5 10-12'

Carbon disulfide	0.45 J	3.2	0.10	ug/kg	SW846 8260B
bis(2-Ethylhexyl)phthalate	20.3 J	270	9.9	ug/kg	SW846 8270C
Aluminum	3500	21	3.7	mg/kg	SW846 6010C
Arsenic	2.7	1.0	0.21	mg/kg	SW846 6010C
Barium	50.1	5.2	0.075	mg/kg	SW846 6010C
Beryllium	0.22 B	0.41	0.025	mg/kg	SW846 6010C
Calcium	128000	5200	65	mg/kg	SW846 6010C
Chromium	6.0	1.0	0.098	mg/kg	SW846 6010C
Cobalt	4.5 B	5.2	0.048	mg/kg	SW846 6010C
Copper	9.1	2.6	0.57	mg/kg	SW846 6010C
Iron	8090	10	0.90	mg/kg	SW846 6010C
Lead	4.2	1.0	0.17	mg/kg	SW846 6010C
Magnesium	30800	520	5.3	mg/kg	SW846 6010C
Manganese	267	1.5	0.041	mg/kg	SW846 6010C
Mercury	0.034	0.033	0.0097	mg/kg	SW846 7471B
Nickel	9.2	4.1	0.045	mg/kg	SW846 6010C
Potassium	979	520	8.8	mg/kg	SW846 6010C
Sodium	135 B	520	3.4	mg/kg	SW846 6010C
Vanadium	8.0	1.0	0.14	mg/kg	SW846 6010C
Zinc	20.1	2.1	0.17	mg/kg	SW846 6010C

Summary of Hits

Job Number: MC21383
Account: Barton & Loguidice
Project: Auburn EPA Brownfield Phase II, Auburn, NY
Collected: 05/28/13 thru 05/31/13



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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MC21383-6 SB-6 2-4'

Acetone	143	8.6	1.1	ug/kg	SW846 8260B
Carbon disulfide	0.69 J	4.3	0.14	ug/kg	SW846 8260B
Chloromethane	0.93 J	4.3	0.40	ug/kg	SW846 8260B
Fluoranthene	28.4 J	100	14	ug/kg	SW846 8270C
Pyrene	24.4 J	100	12	ug/kg	SW846 8270C
Aluminum	2880	20	3.5	mg/kg	SW846 6010C
Arsenic	4.2	0.98	0.20	mg/kg	SW846 6010C
Barium	23.9	4.9	0.071	mg/kg	SW846 6010C
Beryllium	0.43	0.39	0.023	mg/kg	SW846 6010C
Cadmium	0.059 B	0.39	0.041	mg/kg	SW846 6010C
Calcium	2300	490	6.2	mg/kg	SW846 6010C
Chromium	5.6	0.98	0.093	mg/kg	SW846 6010C
Cobalt	6.0	4.9	0.046	mg/kg	SW846 6010C
Copper	8.2	2.5	0.54	mg/kg	SW846 6010C
Iron	41600	9.8	0.85	mg/kg	SW846 6010C
Lead	5.8	0.98	0.16	mg/kg	SW846 6010C
Magnesium	1200	490	5.0	mg/kg	SW846 6010C
Manganese	247	1.5	0.039	mg/kg	SW846 6010C
Mercury	0.057	0.034	0.0098	mg/kg	SW846 7471B
Nickel	18.7	3.9	0.043	mg/kg	SW846 6010C
Potassium	212 B	490	8.4	mg/kg	SW846 6010C
Selenium	0.39 B	0.98	0.34	mg/kg	SW846 6010C
Sodium	150 B	490	3.2	mg/kg	SW846 6010C
Vanadium	8.6	0.98	0.13	mg/kg	SW846 6010C
Zinc	15.7	2.0	0.16	mg/kg	SW846 6010C

MC21383-7 SB-6 7-9'

Benzene	0.27 J	0.35	0.21	ug/kg	SW846 8260B
1,1,1-Trichloroethane	0.28 J	1.4	0.22	ug/kg	SW846 8260B
Anthracene	100 J	110	13	ug/kg	SW846 8270C
Benzo(a)anthracene	562	110	14	ug/kg	SW846 8270C
Benzo(a)pyrene	450	110	12	ug/kg	SW846 8270C
Benzo(b)fluoranthene	358	110	14	ug/kg	SW846 8270C
Benzo(g,h,i)perylene	248	110	11	ug/kg	SW846 8270C
Benzo(k)fluoranthene	423	110	17	ug/kg	SW846 8270C
Chrysene	524	110	14	ug/kg	SW846 8270C
Dibenzo(a,h)anthracene	98.2 J	110	13	ug/kg	SW846 8270C
bis(2-Ethylhexyl)phthalate	152 J	280	10	ug/kg	SW846 8270C
Fluoranthene	880	110	15	ug/kg	SW846 8270C
Indeno(1,2,3-cd)pyrene	228	110	12	ug/kg	SW846 8270C
Phenanthrene	323	110	15	ug/kg	SW846 8270C

Summary of Hits

Job Number: MC21383
 Account: Barton & Loguidice
 Project: Auburn EPA Brownfield Phase II, Auburn, NY
 Collected: 05/28/13 thru 05/31/13



Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Pyrene		756	110	13	ug/kg	SW846 8270C
Aluminum		4820	19	3.5	mg/kg	SW846 6010C
Arsenic		5.1	0.97	0.20	mg/kg	SW846 6010C
Barium		72.7	4.9	0.071	mg/kg	SW846 6010C
Beryllium		0.32 B	0.39	0.023	mg/kg	SW846 6010C
Cadmium		0.11 B	0.39	0.041	mg/kg	SW846 6010C
Calcium		29600	490	6.1	mg/kg	SW846 6010C
Chromium		33.4	0.97	0.092	mg/kg	SW846 6010C
Cobalt		4.6 B	4.9	0.046	mg/kg	SW846 6010C
Copper		23.1	2.4	0.54	mg/kg	SW846 6010C
Iron		12600	9.7	0.85	mg/kg	SW846 6010C
Lead		22.0	0.97	0.16	mg/kg	SW846 6010C
Magnesium		10000	490	5.0	mg/kg	SW846 6010C
Manganese		253	1.5	0.039	mg/kg	SW846 6010C
Mercury		0.047	0.034	0.0098	mg/kg	SW846 7471B
Nickel		13.3	3.9	0.043	mg/kg	SW846 6010C
Potassium		741	490	8.3	mg/kg	SW846 6010C
Selenium		0.37 B	0.97	0.34	mg/kg	SW846 6010C
Sodium		204 B	490	3.2	mg/kg	SW846 6010C
Vanadium		10.7	0.97	0.13	mg/kg	SW846 6010C
Zinc		42.0	1.9	0.16	mg/kg	SW846 6010C

MC21383-8 DUP-1

Carbon disulfide		1.2 J	6.6	0.22	ug/kg	SW846 8260B
Benzo(a)anthracene		32.9 J	100	13	ug/kg	SW846 8270C
Benzo(b)fluoranthene		18.4 J	100	13	ug/kg	SW846 8270C
Benzo(k)fluoranthene		19.9 J	100	16	ug/kg	SW846 8270C
Chrysene		28.2 J	100	13	ug/kg	SW846 8270C
Fluoranthene		57.7 J	100	14	ug/kg	SW846 8270C
Phenanthrene		36.0 J	100	14	ug/kg	SW846 8270C
Pyrene		50.3 J	100	12	ug/kg	SW846 8270C
Aluminum		3200	20	3.6	mg/kg	SW846 6010C
Arsenic		2.7	1.0	0.21	mg/kg	SW846 6010C
Barium		93.5	5.0	0.073	mg/kg	SW846 6010C
Beryllium		0.20 B	0.40	0.024	mg/kg	SW846 6010C
Calcium		154000	5000	63	mg/kg	SW846 6010C
Chromium		5.8	1.0	0.095	mg/kg	SW846 6010C
Cobalt		4.1 B	5.0	0.047	mg/kg	SW846 6010C
Copper		8.7	2.5	0.56	mg/kg	SW846 6010C
Iron		7800	10	0.87	mg/kg	SW846 6010C
Lead		4.0	1.0	0.17	mg/kg	SW846 6010C
Magnesium		29200	500	5.1	mg/kg	SW846 6010C
Manganese		290	1.5	0.040	mg/kg	SW846 6010C
Mercury		0.035	0.032	0.0093	mg/kg	SW846 7471B

Summary of Hits

Job Number: MC21383
Account: Barton & Loguidice
Project: Auburn EPA Brownfield Phase II, Auburn, NY
Collected: 05/28/13 thru 05/31/13



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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Nickel		8.8	4.0	0.044	mg/kg	SW846 6010C
Potassium		868	500	8.6	mg/kg	SW846 6010C
Sodium		137 B	500	3.3	mg/kg	SW846 6010C
Vanadium		6.9	1.0	0.13	mg/kg	SW846 6010C
Zinc		20.1	2.0	0.16	mg/kg	SW846 6010C

MC21383-9 SB-7 8.5-9.5'

Naphthalene		71.6 J	240	39	ug/kg	SW846 8270C
Aluminum		5610	20	3.5	mg/kg	SW846 6010C
Antimony		38.5	0.98	0.15	mg/kg	SW846 6010C
Arsenic		52.7	0.98	0.20	mg/kg	SW846 6010C
Barium		2100	25	0.36	mg/kg	SW846 6010C
Beryllium		0.28 B	0.39	0.023	mg/kg	SW846 6010C
Cadmium		1.3	0.39	0.042	mg/kg	SW846 6010C
Calcium		22000	490	6.2	mg/kg	SW846 6010C
Chromium		23.3	0.98	0.093	mg/kg	SW846 6010C
Cobalt		17.8	4.9	0.046	mg/kg	SW846 6010C
Copper		107	2.5	0.54	mg/kg	SW846 6010C
Iron		260000	98	8.5	mg/kg	SW846 6010C
Lead		2140	4.9	0.82	mg/kg	SW846 6010C
Magnesium		4050	490	5.0	mg/kg	SW846 6010C
Manganese		1000	1.5	0.039	mg/kg	SW846 6010C
Mercury		0.11	0.076	0.022	mg/kg	SW846 7471B
Nickel		26.3	3.9	0.043	mg/kg	SW846 6010C
Potassium		1000	490	8.4	mg/kg	SW846 6010C
Silver		0.57	0.49	0.12	mg/kg	SW846 6010C
Sodium		440 B	490	3.3	mg/kg	SW846 6010C
Thallium		0.17 B	0.98	0.13	mg/kg	SW846 6010C
Vanadium		30.5	0.98	0.13	mg/kg	SW846 6010C
Zinc		2140	9.8	0.79	mg/kg	SW846 6010C

MC21383-10 SB-7 13-14'

Carbon disulfide		1.1 J	6.2	0.20	ug/kg	SW846 8260B
Anthracene		74.4 J	160	20	ug/kg	SW846 8270C
Benzo(a)anthracene		288	160	21	ug/kg	SW846 8270C
Benzo(a)pyrene		241	160	18	ug/kg	SW846 8270C
Benzo(b)fluoranthene		240	160	20	ug/kg	SW846 8270C
Benzo(g,h,i)perylene		162	160	16	ug/kg	SW846 8270C
Benzo(k)fluoranthene		166	160	25	ug/kg	SW846 8270C
Chrysene		297	160	20	ug/kg	SW846 8270C
Fluoranthene		528	160	22	ug/kg	SW846 8270C
Indeno(1,2,3-cd)pyrene		138 J	160	18	ug/kg	SW846 8270C
Phenanthrene		323	160	22	ug/kg	SW846 8270C

Summary of Hits

Job Number: MC21383
 Account: Barton & Loguidice
 Project: Auburn EPA Brownfield Phase II, Auburn, NY
 Collected: 05/28/13 thru 05/31/13



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method	
		Pyrene	506	160	19	ug/kg	SW846 8270C
		Aluminum	4580	20	3.5	mg/kg	SW846 6010C
		Antimony	4.1	0.98	0.15	mg/kg	SW846 6010C
		Arsenic	22.2	0.98	0.20	mg/kg	SW846 6010C
		Barium	428	4.9	0.071	mg/kg	SW846 6010C
		Beryllium	0.29 B	0.39	0.023	mg/kg	SW846 6010C
		Cadmium	0.52	0.39	0.041	mg/kg	SW846 6010C
		Calcium	27500	490	6.2	mg/kg	SW846 6010C
		Chromium	32.8	0.98	0.093	mg/kg	SW846 6010C
		Cobalt	7.7	4.9	0.046	mg/kg	SW846 6010C
		Copper	121	2.4	0.54	mg/kg	SW846 6010C
		Iron	71000	20	1.7	mg/kg	SW846 6010C
		Lead	211	0.98	0.16	mg/kg	SW846 6010C
		Magnesium	8000	490	5.0	mg/kg	SW846 6010C
		Manganese	524	1.5	0.039	mg/kg	SW846 6010C
		Mercury	0.44	0.045	0.013	mg/kg	SW846 7471B
		Nickel	20.9	3.9	0.043	mg/kg	SW846 6010C
		Potassium	753	490	8.4	mg/kg	SW846 6010C
		Silver	0.92	0.49	0.12	mg/kg	SW846 6010C
		Sodium	210 B	490	3.2	mg/kg	SW846 6010C
		Vanadium	16.9	0.98	0.13	mg/kg	SW846 6010C
		Zinc	327	2.0	0.16	mg/kg	SW846 6010C

MC21383-11 SB-8 13-13.8'

		Benzene	1.0	0.44	0.26	ug/kg	SW846 8260B
		Carbon disulfide	0.74 J	4.4	0.14	ug/kg	SW846 8260B
		Toluene	0.83 J	4.4	0.74	ug/kg	SW846 8260B
		Anthracene	30.6 J	130	16	ug/kg	SW846 8270C
		Benzo(a)anthracene	153	130	17	ug/kg	SW846 8270C
		Benzo(a)pyrene	154	130	14	ug/kg	SW846 8270C
		Benzo(b)fluoranthene	121 J	130	16	ug/kg	SW846 8270C
		Benzo(g,h,i)perylene	95.4 J	130	13	ug/kg	SW846 8270C
		Benzo(k)fluoranthene	144	130	20	ug/kg	SW846 8270C
		Chrysene	165	130	16	ug/kg	SW846 8270C
		Dibenzo(a,h)anthracene	30.9 J	130	15	ug/kg	SW846 8270C
		bis(2-Ethylhexyl)phthalate	385	320	12	ug/kg	SW846 8270C
		Fluoranthene	279	130	18	ug/kg	SW846 8270C
		Indeno(1,2,3-cd)pyrene	80.5 J	130	14	ug/kg	SW846 8270C
		Phenanthrene	137	130	18	ug/kg	SW846 8270C
		Pyrene	216	130	15	ug/kg	SW846 8270C
		Aluminum	4050	20	3.5	mg/kg	SW846 6010C
		Arsenic	6.8	0.98	0.20	mg/kg	SW846 6010C
		Barium	110	4.9	0.071	mg/kg	SW846 6010C
		Beryllium	0.28 B	0.39	0.023	mg/kg	SW846 6010C

Summary of Hits

Job Number: MC21383
 Account: Barton & Loguidice
 Project: Auburn EPA Brownfield Phase II, Auburn, NY
 Collected: 05/28/13 thru 05/31/13



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method	
		Cadmium	0.28 B	0.39	0.041	mg/kg	SW846 6010C
		Calcium	114000	4900	61	mg/kg	SW846 6010C
		Chromium	17.9	0.98	0.093	mg/kg	SW846 6010C
		Cobalt	5.1	4.9	0.046	mg/kg	SW846 6010C
		Copper	53.3	2.4	0.54	mg/kg	SW846 6010C
		Iron	15800	9.8	0.85	mg/kg	SW846 6010C
		Lead	65.9	0.98	0.16	mg/kg	SW846 6010C
		Magnesium	12000	490	5.0	mg/kg	SW846 6010C
		Manganese	363	1.5	0.039	mg/kg	SW846 6010C
		Mercury	0.23	0.036	0.011	mg/kg	SW846 7471B
		Nickel	23.5	3.9	0.043	mg/kg	SW846 6010C
		Potassium	813	490	8.4	mg/kg	SW846 6010C
		Silver	0.32 B	0.49	0.12	mg/kg	SW846 6010C
		Sodium	210 B	490	3.2	mg/kg	SW846 6010C
		Vanadium	12.4	0.98	0.13	mg/kg	SW846 6010C
		Zinc	101	2.0	0.16	mg/kg	SW846 6010C

MC21383-12 SB-9 12-13.8'

		Benzene	1.8	0.79	0.47	ug/kg	SW846 8260B
		Acenaphthene	217	130	18	ug/kg	SW846 8270C
		Acenaphthylene	46.2 J	130	13	ug/kg	SW846 8270C
		Anthracene	461	130	16	ug/kg	SW846 8270C
		Benzo(a)anthracene	1180	130	17	ug/kg	SW846 8270C
		Benzo(a)pyrene	970	130	14	ug/kg	SW846 8270C
		Benzo(b)fluoranthene	912	130	17	ug/kg	SW846 8270C
		Benzo(g,h,i)perylene	599	130	13	ug/kg	SW846 8270C
		Benzo(k)fluoranthene	729	130	20	ug/kg	SW846 8270C
		Carbazole	195	130	16	ug/kg	SW846 8270C
		Chrysene	1300	130	16	ug/kg	SW846 8270C
		Dibenzo(a,h)anthracene	221	130	16	ug/kg	SW846 8270C
		Dibenzofuran	133	130	18	ug/kg	SW846 8270C
		bis(2-Ethylhexyl)phthalate	161 J	330	12	ug/kg	SW846 8270C
		Fluoranthene	2600	130	18	ug/kg	SW846 8270C
		Fluorene	258	130	18	ug/kg	SW846 8270C
		Indeno(1,2,3-cd)pyrene	518	130	15	ug/kg	SW846 8270C
		2-Methylnaphthalene	60.1 J	130	17	ug/kg	SW846 8270C
		Naphthalene	105 J	130	21	ug/kg	SW846 8270C
		Phenanthrene	2070	130	18	ug/kg	SW846 8270C
		Pyrene	1930	130	16	ug/kg	SW846 8270C
		Aluminum	19000	20	3.6	mg/kg	SW846 6010C
		Antimony	0.28 B	1.0	0.15	mg/kg	SW846 6010C
		Arsenic	7.7	1.0	0.21	mg/kg	SW846 6010C
		Barium	267	5.0	0.073	mg/kg	SW846 6010C
		Beryllium	0.71	0.40	0.024	mg/kg	SW846 6010C

Summary of Hits

Job Number: MC21383
Account: Barton & Loguidice
Project: Auburn EPA Brownfield Phase II, Auburn, NY
Collected: 05/28/13 thru 05/31/13



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method	
		Cadmium	0.52	0.40	0.043	mg/kg	SW846 6010C
		Calcium	85100	2500	32	mg/kg	SW846 6010C
		Chromium	37.6	1.0	0.096	mg/kg	SW846 6010C
		Cobalt	7.4	5.0	0.047	mg/kg	SW846 6010C
		Copper	87.8	2.5	0.56	mg/kg	SW846 6010C
		Iron	19300	10	0.88	mg/kg	SW846 6010C
		Lead	232	1.0	0.17	mg/kg	SW846 6010C
		Magnesium	21700	500	5.2	mg/kg	SW846 6010C
		Manganese	370	1.5	0.040	mg/kg	SW846 6010C
		Mercury	0.84	0.040	0.012	mg/kg	SW846 7471B
		Nickel	17.6	4.0	0.044	mg/kg	SW846 6010C
		Potassium	4910	500	8.6	mg/kg	SW846 6010C
		Silver	0.47 B	0.50	0.13	mg/kg	SW846 6010C
		Sodium	413 B	500	3.3	mg/kg	SW846 6010C
		Vanadium	30.4	1.0	0.13	mg/kg	SW846 6010C
		Zinc	258	2.0	0.16	mg/kg	SW846 6010C

MC21383-13 EQUIP BLANK 1

		bis(2-Ethylhexyl)phthalate	1.2 J	2.4	0.58	ug/l	SW846 8270C
		Aluminum	48.5 B	200	40	ug/l	SW846 6010C
		Calcium	796 B	5000	38	ug/l	SW846 6010C
		Iron	169	100	20	ug/l	SW846 6010C
		Magnesium	124 B	5000	59	ug/l	SW846 6010C
		Manganese	2.8 B	15	0.81	ug/l	SW846 6010C
		Mercury	0.11 B	0.20	0.067	ug/l	SW846 7470A
		Sodium	495 B	5000	60	ug/l	SW846 6010C
		Zinc	0.70 B	20	0.50	ug/l	SW846 6010C

MC21383-14 SB-10 11-12'

		Benzene	2.8	0.51	0.30	ug/kg	SW846 8260B
		Carbon disulfide	0.55 J	5.1	0.17	ug/kg	SW846 8260B
		Ethylbenzene	0.38 J	2.0	0.24	ug/kg	SW846 8260B
		Toluene	2.3 J	5.1	0.86	ug/kg	SW846 8260B
		Xylene (total)	1.0 J	2.0	0.24	ug/kg	SW846 8260B
		Acenaphthene	20.5 J	120	16	ug/kg	SW846 8270C
		Anthracene	42.1 J	120	15	ug/kg	SW846 8270C
		Benzo(a)anthracene	96.8 J	120	16	ug/kg	SW846 8270C
		Benzo(a)pyrene	83.9 J	120	13	ug/kg	SW846 8270C
		Benzo(b)fluoranthene	72.1 J	120	15	ug/kg	SW846 8270C
		Benzo(g,h,i)perylene	46.3 J	120	12	ug/kg	SW846 8270C
		Benzo(k)fluoranthene	70.0 J	120	18	ug/kg	SW846 8270C
		Carbazole	21.5 J	120	14	ug/kg	SW846 8270C
		Chrysene	85.0 J	120	15	ug/kg	SW846 8270C

Summary of Hits

Job Number: MC21383
 Account: Barton & Loguidice
 Project: Auburn EPA Brownfield Phase II, Auburn, NY
 Collected: 05/28/13 thru 05/31/13



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method	
		Dibenzo(a,h)anthracene	19.1 J	120	14	ug/kg	SW846 8270C
		bis(2-Ethylhexyl)phthalate	94.1 J	300	11	ug/kg	SW846 8270C
		Fluoranthene	185	120	17	ug/kg	SW846 8270C
		Fluorene	19.5 J	120	16	ug/kg	SW846 8270C
		Indeno(1,2,3-cd)pyrene	43.6 J	120	13	ug/kg	SW846 8270C
		Naphthalene	20.5 J	120	19	ug/kg	SW846 8270C
		Phenanthrene	157	120	16	ug/kg	SW846 8270C
		Pyrene	124	120	14	ug/kg	SW846 8270C
		Aluminum	15000	20	3.6	mg/kg	SW846 6010C
		Arsenic	6.8	1.0	0.21	mg/kg	SW846 6010C
		Barium	115	5.0	0.072	mg/kg	SW846 6010C
		Beryllium	0.56	0.40	0.024	mg/kg	SW846 6010C
		Cadmium	0.22 B	0.40	0.042	mg/kg	SW846 6010C
		Calcium	73300	2500	31	mg/kg	SW846 6010C
		Chromium	12.8	1.0	0.095	mg/kg	SW846 6010C
		Cobalt	4.8 B	5.0	0.047	mg/kg	SW846 6010C
		Copper	19.1	2.5	0.55	mg/kg	SW846 6010C
		Iron	9950	10	0.87	mg/kg	SW846 6010C
		Lead	39.6	1.0	0.17	mg/kg	SW846 6010C
		Magnesium	16700	500	5.1	mg/kg	SW846 6010C
		Manganese	235	1.5	0.040	mg/kg	SW846 6010C
		Mercury	0.039	0.037	0.011	mg/kg	SW846 7471B
		Nickel	9.2	4.0	0.044	mg/kg	SW846 6010C
		Potassium	3160	500	8.5	mg/kg	SW846 6010C
		Sodium	948	500	3.3	mg/kg	SW846 6010C
		Vanadium	28.1	1.0	0.13	mg/kg	SW846 6010C
		Zinc	75.1	2.0	0.16	mg/kg	SW846 6010C

MC21383-15 SB-11 7-8.3'

		Acetone	672	17	2.1	ug/kg	SW846 8260B
		Benzene	2.3	0.84	0.50	ug/kg	SW846 8260B
		Carbon disulfide	1.3 J	8.4	0.28	ug/kg	SW846 8260B
		Xylene (total)	1.3 J	3.4	0.40	ug/kg	SW846 8260B
		Acenaphthene	2130	580	77	ug/kg	SW846 8270C
		Acenaphthylene	79.6 J	580	58	ug/kg	SW846 8270C
		Anthracene	4880	580	69	ug/kg	SW846 8270C
		Benzo(a)anthracene	8030	580	74	ug/kg	SW846 8270C
		Benzo(a)pyrene	5740	580	62	ug/kg	SW846 8270C
		Benzo(b)fluoranthene	4410	580	72	ug/kg	SW846 8270C
		Benzo(g,h,i)perylene	2710	580	58	ug/kg	SW846 8270C
		Benzo(k)fluoranthene	5390	580	87	ug/kg	SW846 8270C
		Carbazole	2980	580	68	ug/kg	SW846 8270C
		Chrysene	6690	580	72	ug/kg	SW846 8270C
		Dibenzo(a,h)anthracene	1340	580	69	ug/kg	SW846 8270C

Summary of Hits

Job Number: MC21383
 Account: Barton & Loguidice
 Project: Auburn EPA Brownfield Phase II, Auburn, NY
 Collected: 05/28/13 thru 05/31/13



Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Dibenzofuran		2110	580	80	ug/kg	SW846 8270C
bis(2-Ethylhexyl)phthalate		141 J	1400	53	ug/kg	SW846 8270C
Fluoranthene		18800	580	79	ug/kg	SW846 8270C
Fluorene		2650	580	77	ug/kg	SW846 8270C
Indeno(1,2,3-cd)pyrene		2820	580	64	ug/kg	SW846 8270C
2-Methylnaphthalene		1360	580	73	ug/kg	SW846 8270C
Naphthalene		3810	580	92	ug/kg	SW846 8270C
N-Nitrosodiphenylamine		462 J	1400	87	ug/kg	SW846 8270C
Phenanthrene		17300	580	78	ug/kg	SW846 8270C
Pyrene		12000	580	68	ug/kg	SW846 8270C
Aluminum		9350	20	3.5	mg/kg	SW846 6010C
Arsenic		7.8	0.99	0.21	mg/kg	SW846 6010C
Barium		425	4.9	0.072	mg/kg	SW846 6010C
Beryllium		0.51	0.40	0.024	mg/kg	SW846 6010C
Cadmium		0.24 B	0.40	0.042	mg/kg	SW846 6010C
Calcium		122000	4900	62	mg/kg	SW846 6010C
Chromium		16.3	0.99	0.094	mg/kg	SW846 6010C
Cobalt		5.1	4.9	0.046	mg/kg	SW846 6010C
Copper		31.5	2.5	0.55	mg/kg	SW846 6010C
Iron		10100	9.9	0.86	mg/kg	SW846 6010C
Lead		60.7	0.99	0.17	mg/kg	SW846 6010C
Magnesium		21500	490	5.1	mg/kg	SW846 6010C
Manganese		415	1.5	0.040	mg/kg	SW846 6010C
Mercury		0.048	0.038	0.011	mg/kg	SW846 7471B
Nickel		10.4	4.0	0.043	mg/kg	SW846 6010C
Potassium		1650	490	8.5	mg/kg	SW846 6010C
Sodium		796	490	3.3	mg/kg	SW846 6010C
Vanadium		19.6	0.99	0.13	mg/kg	SW846 6010C
Zinc		153	2.0	0.16	mg/kg	SW846 6010C

MC21383-16 42WADS SB-1 1-2'

Acetone		27.7	9.5	1.2	ug/kg	SW846 8260B
Carbon disulfide		0.31 J	4.7	0.16	ug/kg	SW846 8260B
bis(2-Ethylhexyl)phthalate		169 J	260	9.7	ug/kg	SW846 8270C
Aluminum		586	20	3.6	mg/kg	SW846 6010C
Arsenic		2.6	1.0	0.21	mg/kg	SW846 6010C
Barium		45.0	5.0	0.072	mg/kg	SW846 6010C
Beryllium		0.060 B	0.40	0.024	mg/kg	SW846 6010C
Calcium		208000	5000	63	mg/kg	SW846 6010C
Chromium		3.4	1.0	0.095	mg/kg	SW846 6010C
Cobalt		1.6 B	5.0	0.047	mg/kg	SW846 6010C
Copper		3.7	2.5	0.55	mg/kg	SW846 6010C
Iron		5950	10	0.87	mg/kg	SW846 6010C
Lead		37.9	1.0	0.17	mg/kg	SW846 6010C

Summary of Hits

Job Number: MC21383
 Account: Barton & Loguidice
 Project: Auburn EPA Brownfield Phase II, Auburn, NY
 Collected: 05/28/13 thru 05/31/13



Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Magnesium		99500	5000	51	mg/kg	SW846 6010C
Manganese		192	1.5	0.040	mg/kg	SW846 6010C
Mercury		0.035	0.032	0.0094	mg/kg	SW846 7471B
Nickel		4.5	4.0	0.044	mg/kg	SW846 6010C
Potassium		238 B	500	8.5	mg/kg	SW846 6010C
Sodium		164 B	500	3.3	mg/kg	SW846 6010C
Vanadium		7.0	1.0	0.13	mg/kg	SW846 6010C
Zinc		4.1	2.0	0.16	mg/kg	SW846 6010C

MC21383-17 42WADS SB-2 3-4.5'

Benzene		9.7	0.38	0.23	ug/kg	SW846 8260B
Carbon disulfide		0.89 J	3.8	0.13	ug/kg	SW846 8260B
Toluene		6.9	3.8	0.65	ug/kg	SW846 8260B
Xylene (total)		2.4	1.5	0.18	ug/kg	SW846 8260B
Acenaphthylene		32.0 J	120	12	ug/kg	SW846 8270C
Anthracene		66.9 J	120	15	ug/kg	SW846 8270C
Benzo(a)anthracene		268	120	16	ug/kg	SW846 8270C
Benzo(a)pyrene		286	120	13	ug/kg	SW846 8270C
Benzo(b)fluoranthene		270	120	15	ug/kg	SW846 8270C
Benzo(g,h,i)perylene		208	120	12	ug/kg	SW846 8270C
Benzo(k)fluoranthene		250	120	18	ug/kg	SW846 8270C
Carbazole		48.1 J	120	14	ug/kg	SW846 8270C
Chrysene		340	120	15	ug/kg	SW846 8270C
Dibenzo(a,h)anthracene		74.5 J	120	14	ug/kg	SW846 8270C
Dibenzofuran		18.2 J	120	17	ug/kg	SW846 8270C
bis(2-Ethylhexyl)phthalate		136 J	300	11	ug/kg	SW846 8270C
Fluoranthene		658	120	17	ug/kg	SW846 8270C
Fluorene		17.4 J	120	16	ug/kg	SW846 8270C
Indeno(1,2,3-cd)pyrene		180	120	13	ug/kg	SW846 8270C
2-Methylnaphthalene		19.9 J	120	15	ug/kg	SW846 8270C
Naphthalene		36.2 J	120	19	ug/kg	SW846 8270C
Phenanthrene		361	120	16	ug/kg	SW846 8270C
Pyrene		494	120	14	ug/kg	SW846 8270C
Aluminum		6880	20	3.5	mg/kg	SW846 6010C
Antimony		0.35 B	0.98	0.15	mg/kg	SW846 6010C
Arsenic		6.3	0.98	0.20	mg/kg	SW846 6010C
Barium		76.1	4.9	0.071	mg/kg	SW846 6010C
Beryllium		0.37 B	0.39	0.023	mg/kg	SW846 6010C
Cadmium		0.24 B	0.39	0.042	mg/kg	SW846 6010C
Calcium		81400	2500	31	mg/kg	SW846 6010C
Chromium		12.3	0.98	0.093	mg/kg	SW846 6010C
Cobalt		5.6	4.9	0.046	mg/kg	SW846 6010C
Copper		33.8	2.5	0.54	mg/kg	SW846 6010C
Iron		31400	9.8	0.85	mg/kg	SW846 6010C

Summary of Hits

Job Number: MC21383
 Account: Barton & Loguidice
 Project: Auburn EPA Brownfield Phase II, Auburn, NY
 Collected: 05/28/13 thru 05/31/13



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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Lead		170	0.98	0.16	mg/kg	SW846 6010C
Magnesium		34700	490	5.0	mg/kg	SW846 6010C
Manganese		369	1.5	0.039	mg/kg	SW846 6010C
Mercury		1.1	0.038	0.011	mg/kg	SW846 7471B
Nickel		11.2	3.9	0.043	mg/kg	SW846 6010C
Potassium		619	490	8.4	mg/kg	SW846 6010C
Sodium		166 B	490	3.2	mg/kg	SW846 6010C
Vanadium		16.2	0.98	0.13	mg/kg	SW846 6010C
Zinc		67.8	2.0	0.16	mg/kg	SW846 6010C

MC21383-18 42WADS SB-3 3.5-4.6'

Benzene		0.69	0.51	0.30	ug/kg	SW846 8260B
Carbon disulfide		0.63 J	5.1	0.17	ug/kg	SW846 8260B
bis(2-Ethylhexyl)phthalate		71.8 J	330	12	ug/kg	SW846 8270C
Fluoranthene		22.1 J	130	18	ug/kg	SW846 8270C
Pyrene		16.8 J	130	15	ug/kg	SW846 8270C
Aluminum		10900	19	3.5	mg/kg	SW846 6010C
Arsenic		6.9	0.97	0.20	mg/kg	SW846 6010C
Barium		75.8	4.9	0.071	mg/kg	SW846 6010C
Beryllium		0.54	0.39	0.023	mg/kg	SW846 6010C
Cadmium		0.19 B	0.39	0.041	mg/kg	SW846 6010C
Calcium		21700	490	6.1	mg/kg	SW846 6010C
Chromium		14.5	0.97	0.093	mg/kg	SW846 6010C
Cobalt		10.1	4.9	0.046	mg/kg	SW846 6010C
Copper		26.0	2.4	0.54	mg/kg	SW846 6010C
Iron		18300	9.7	0.85	mg/kg	SW846 6010C
Lead		45.9	0.97	0.16	mg/kg	SW846 6010C
Magnesium		10900	490	5.0	mg/kg	SW846 6010C
Manganese		442	1.5	0.039	mg/kg	SW846 6010C
Mercury		0.19	0.035	0.010	mg/kg	SW846 7471B
Nickel		23.4	3.9	0.043	mg/kg	SW846 6010C
Potassium		1610	490	8.3	mg/kg	SW846 6010C
Sodium		388 B	490	3.2	mg/kg	SW846 6010C
Vanadium		18.7	0.97	0.13	mg/kg	SW846 6010C
Zinc		50.2	1.9	0.16	mg/kg	SW846 6010C

MC21383-19 42WADS SB-4 1-2'

Tetrachloroethene		1.3 J	1.9	0.22	ug/kg	SW846 8260B
Benzo(a)anthracene ^a		185 J	530	68	ug/kg	SW846 8270C
Benzo(a)pyrene ^a		216 J	530	57	ug/kg	SW846 8270C
Benzo(b)fluoranthene ^a		200 J	530	66	ug/kg	SW846 8270C
Benzo(g,h,i)perylene ^a		151 J	530	53	ug/kg	SW846 8270C
Benzo(k)fluoranthene ^a		191 J	530	80	ug/kg	SW846 8270C

Summary of Hits

Job Number: MC21383
 Account: Barton & Loguidice
 Project: Auburn EPA Brownfield Phase II, Auburn, NY
 Collected: 05/28/13 thru 05/31/13



Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Chrysene ^a		233 J	530	66	ug/kg	SW846 8270C
Fluoranthene ^a		257 J	530	73	ug/kg	SW846 8270C
Indeno(1,2,3-cd)pyrene ^a		130 J	530	59	ug/kg	SW846 8270C
2-Methylnaphthalene ^a		217 J	530	67	ug/kg	SW846 8270C
Naphthalene ^a		140 J	530	85	ug/kg	SW846 8270C
Phenanthrene ^a		203 J	530	72	ug/kg	SW846 8270C
Pyrene ^a		216 J	530	62	ug/kg	SW846 8270C
Aluminum		1790	20	3.6	mg/kg	SW846 6010C
Antimony		0.22 B	1.0	0.15	mg/kg	SW846 6010C
Arsenic		4.8	1.0	0.21	mg/kg	SW846 6010C
Barium		37.9	5.0	0.073	mg/kg	SW846 6010C
Beryllium		0.19 B	0.40	0.024	mg/kg	SW846 6010C
Cadmium		0.21 B	0.40	0.043	mg/kg	SW846 6010C
Calcium		126000	5000	63	mg/kg	SW846 6010C
Chromium		10.0	1.0	0.095	mg/kg	SW846 6010C
Cobalt		5.2	5.0	0.047	mg/kg	SW846 6010C
Copper		28.3	2.5	0.56	mg/kg	SW846 6010C
Iron		44500	10	0.87	mg/kg	SW846 6010C
Lead		55.4	1.0	0.17	mg/kg	SW846 6010C
Magnesium		33800	500	5.1	mg/kg	SW846 6010C
Manganese		338	1.5	0.040	mg/kg	SW846 6010C
Mercury		0.34	0.035	0.010	mg/kg	SW846 7471B
Nickel		11.4	4.0	0.044	mg/kg	SW846 6010C
Potassium		440 B	500	8.6	mg/kg	SW846 6010C
Sodium		115 B	500	3.3	mg/kg	SW846 6010C
Vanadium		18.6	1.0	0.13	mg/kg	SW846 6010C
Zinc		28.9	2.0	0.16	mg/kg	SW846 6010C

MC21383-20 42WADS SB-4 10-11'

Benzene		0.25 J	0.41	0.24	ug/kg	SW846 8260B
bis(2-Ethylhexyl)phthalate		164 J	280	11	ug/kg	SW846 8270C
Aluminum		5300	20	3.6	mg/kg	SW846 6010C
Arsenic		2.7	0.99	0.21	mg/kg	SW846 6010C
Barium		66.5	5.0	0.072	mg/kg	SW846 6010C
Beryllium		0.23 B	0.40	0.024	mg/kg	SW846 6010C
Calcium		68500	2500	31	mg/kg	SW846 6010C
Chromium		8.2	0.99	0.094	mg/kg	SW846 6010C
Cobalt		5.0	5.0	0.047	mg/kg	SW846 6010C
Copper		13.8	2.5	0.55	mg/kg	SW846 6010C
Iron		11100	9.9	0.86	mg/kg	SW846 6010C
Lead		4.7	0.99	0.17	mg/kg	SW846 6010C
Magnesium		25700	500	5.1	mg/kg	SW846 6010C
Manganese		318	1.5	0.040	mg/kg	SW846 6010C
Mercury		0.046	0.032	0.0093	mg/kg	SW846 7471B

Summary of Hits

Job Number: MC21383
 Account: Barton & Loguidice
 Project: Auburn EPA Brownfield Phase II, Auburn, NY
 Collected: 05/28/13 thru 05/31/13



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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Nickel		10.0	4.0	0.044	mg/kg	SW846 6010C
Potassium		1230	500	8.5	mg/kg	SW846 6010C
Sodium		99.9 B	500	3.3	mg/kg	SW846 6010C
Vanadium		10.4	0.99	0.13	mg/kg	SW846 6010C
Zinc		20.4	2.0	0.16	mg/kg	SW846 6010C

MC21383-21 42WADS SB-6 1.5-2.5'

Acetone		51.5	12	1.5	ug/kg	SW846 8260B
Carbon disulfide		0.62 J	5.8	0.19	ug/kg	SW846 8260B
bis(2-Ethylhexyl)phthalate		28.7 J	260	9.7	ug/kg	SW846 8270C
Aluminum		1620	20	3.6	mg/kg	SW846 6010C
Arsenic		1.8	1.0	0.21	mg/kg	SW846 6010C
Barium		10.4	5.0	0.073	mg/kg	SW846 6010C
Beryllium		0.070 B	0.40	0.024	mg/kg	SW846 6010C
Calcium		237000	5000	63	mg/kg	SW846 6010C
Chromium		2.0	1.0	0.095	mg/kg	SW846 6010C
Cobalt		1.8 B	5.0	0.047	mg/kg	SW846 6010C
Copper		10.1	2.5	0.56	mg/kg	SW846 6010C
Iron		2880	10	0.87	mg/kg	SW846 6010C
Lead		2.4	1.0	0.17	mg/kg	SW846 6010C
Magnesium		15400	500	5.1	mg/kg	SW846 6010C
Manganese		128	1.5	0.040	mg/kg	SW846 6010C
Mercury		0.043	0.032	0.0094	mg/kg	SW846 7471B
Nickel		3.8 B	4.0	0.044	mg/kg	SW846 6010C
Potassium		295 B	500	8.6	mg/kg	SW846 6010C
Sodium		105 B	500	3.3	mg/kg	SW846 6010C
Thallium		0.22 B	1.0	0.13	mg/kg	SW846 6010C
Vanadium		2.9	1.0	0.13	mg/kg	SW846 6010C
Zinc		6.1	2.0	0.16	mg/kg	SW846 6010C

MC21383-22 42WADS SB-6 8-10'

bis(2-Ethylhexyl)phthalate		736	290	11	ug/kg	SW846 8270C
Aluminum		5830	20	3.5	mg/kg	SW846 6010C
Arsenic		2.6	0.98	0.20	mg/kg	SW846 6010C
Barium		107	4.9	0.071	mg/kg	SW846 6010C
Beryllium		0.25 B	0.39	0.023	mg/kg	SW846 6010C
Calcium		79300	2500	31	mg/kg	SW846 6010C
Chromium		8.4	0.98	0.093	mg/kg	SW846 6010C
Cobalt		5.0	4.9	0.046	mg/kg	SW846 6010C
Copper		14.2	2.5	0.54	mg/kg	SW846 6010C
Iron		10900	9.8	0.85	mg/kg	SW846 6010C
Lead		4.6	0.98	0.16	mg/kg	SW846 6010C
Magnesium		28900	490	5.0	mg/kg	SW846 6010C

Summary of Hits

Job Number: MC21383
Account: Barton & Loguidice
Project: Auburn EPA Brownfield Phase II, Auburn, NY
Collected: 05/28/13 thru 05/31/13



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method	
		Manganese	353	1.5	0.039	mg/kg	SW846 6010C
		Mercury	0.032	0.032	0.0094	mg/kg	SW846 7471B
		Nickel	11.4	3.9	0.043	mg/kg	SW846 6010C
		Potassium	1220	490	8.4	mg/kg	SW846 6010C
		Sodium	112 B	490	3.2	mg/kg	SW846 6010C
		Vanadium	11.1	0.98	0.13	mg/kg	SW846 6010C
		Zinc	25.0	2.0	0.16	mg/kg	SW846 6010C
MC21383-23	42WADS SB-7 1.5-2.5'						
		Benzene	18.5	0.34	0.20	ug/kg	SW846 8260B
		Ethylbenzene	3.4	1.4	0.16	ug/kg	SW846 8260B
		Styrene	1.0 J	3.4	0.16	ug/kg	SW846 8260B
		Toluene	11.2	3.4	0.57	ug/kg	SW846 8260B
		Xylene (total)	6.6	1.4	0.16	ug/kg	SW846 8260B
		2,4-Dimethylphenol	2220	610	100	ug/kg	SW846 8270C
		2-Methylphenol	974	610	24	ug/kg	SW846 8270C
		3&4-Methylphenol	2260	610	30	ug/kg	SW846 8270C
		Phenol	1490	310	17	ug/kg	SW846 8270C
		Acenaphthene	102 J	120	16	ug/kg	SW846 8270C
		Anthracene	55.8 J	120	15	ug/kg	SW846 8270C
		Chrysene	138	120	15	ug/kg	SW846 8270C
		Fluorene	149	120	16	ug/kg	SW846 8270C
		2-Methylnaphthalene	1230	120	16	ug/kg	SW846 8270C
		Naphthalene	547	120	20	ug/kg	SW846 8270C
		Phenanthrene	299	120	17	ug/kg	SW846 8270C
		Pyrene	85.0 J	120	14	ug/kg	SW846 8270C
		Aluminum	2970	20	3.6	mg/kg	SW846 6010C
		Antimony	6.4	1.0	0.15	mg/kg	SW846 6010C
		Arsenic	42.0	1.0	0.21	mg/kg	SW846 6010C
		Barium	5.9	5.0	0.073	mg/kg	SW846 6010C
		Beryllium	0.20 B	0.40	0.024	mg/kg	SW846 6010C
		Cadmium ^a	0.57 B	4.0	0.43	mg/kg	SW846 6010C
		Calcium	350 B	500	6.3	mg/kg	SW846 6010C
		Chromium	202	1.0	0.095	mg/kg	SW846 6010C
		Cobalt	25.0	5.0	0.047	mg/kg	SW846 6010C
		Copper	250	2.5	0.56	mg/kg	SW846 6010C
		Iron	354000	100	8.7	mg/kg	SW846 6010C
		Lead	40.4	1.0	0.17	mg/kg	SW846 6010C
		Magnesium	1130	500	5.1	mg/kg	SW846 6010C
		Manganese	1280	1.5	0.040	mg/kg	SW846 6010C
		Mercury	0.050	0.033	0.0096	mg/kg	SW846 7471B
		Nickel	195	4.0	0.044	mg/kg	SW846 6010C
		Potassium	83.9 B	500	8.6	mg/kg	SW846 6010C
		Silver	0.20 B	0.50	0.13	mg/kg	SW846 6010C

Summary of Hits

Job Number: MC21383
 Account: Barton & Loguidice
 Project: Auburn EPA Brownfield Phase II, Auburn, NY
 Collected: 05/28/13 thru 05/31/13



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method	
		Sodium	35.2 B	500	3.3	mg/kg	SW846 6010C
		Thallium	0.54 B	1.0	0.13	mg/kg	SW846 6010C
		Vanadium	18.8	1.0	0.13	mg/kg	SW846 6010C
		Zinc	21.1	2.0	0.16	mg/kg	SW846 6010C

MC21383-24 42WADS SB-8 17.5-18.7'

		Benzene	0.29 J	0.43	0.25	ug/kg	SW846 8260B
		bis(2-Ethylhexyl)phthalate	163 J	290	11	ug/kg	SW846 8270C
		Aluminum	7990	20	3.6	mg/kg	SW846 6010C
		Arsenic	3.0	1.0	0.21	mg/kg	SW846 6010C
		Barium	65.9	5.0	0.073	mg/kg	SW846 6010C
		Beryllium	0.34 B	0.40	0.024	mg/kg	SW846 6010C
		Calcium	68700	2500	31	mg/kg	SW846 6010C
		Chromium	11.3	1.0	0.095	mg/kg	SW846 6010C
		Cobalt	6.5	5.0	0.047	mg/kg	SW846 6010C
		Copper	15.8	2.5	0.56	mg/kg	SW846 6010C
		Iron	14000	10	0.87	mg/kg	SW846 6010C
		Lead	5.3	1.0	0.17	mg/kg	SW846 6010C
		Magnesium	27900	500	5.1	mg/kg	SW846 6010C
		Manganese	355	1.5	0.040	mg/kg	SW846 6010C
		Mercury	0.025 B	0.033	0.0096	mg/kg	SW846 7471B
		Nickel	14.5	4.0	0.044	mg/kg	SW846 6010C
		Potassium	1810	500	8.6	mg/kg	SW846 6010C
		Sodium	107 B	500	3.3	mg/kg	SW846 6010C
		Vanadium	12.7	1.0	0.13	mg/kg	SW846 6010C
		Zinc	25.3	2.0	0.16	mg/kg	SW846 6010C

MC21383-25 42WADS SB-9 11-12'

		bis(2-Ethylhexyl)phthalate	17.0 J	290	11	ug/kg	SW846 8270C
		Aluminum	8490	20	3.5	mg/kg	SW846 6010C
		Arsenic	3.4	0.99	0.21	mg/kg	SW846 6010C
		Barium	66.8	4.9	0.072	mg/kg	SW846 6010C
		Beryllium	0.36 B	0.40	0.024	mg/kg	SW846 6010C
		Calcium	69600	2500	31	mg/kg	SW846 6010C
		Chromium	11.9	0.99	0.094	mg/kg	SW846 6010C
		Cobalt	6.6	4.9	0.046	mg/kg	SW846 6010C
		Copper	15.8	2.5	0.55	mg/kg	SW846 6010C
		Iron	14600	9.9	0.86	mg/kg	SW846 6010C
		Lead	5.5	0.99	0.17	mg/kg	SW846 6010C
		Magnesium	28400	490	5.1	mg/kg	SW846 6010C
		Manganese	371	1.5	0.040	mg/kg	SW846 6010C
		Mercury	0.026 B	0.034	0.0097	mg/kg	SW846 7471B
		Nickel	14.8	4.0	0.043	mg/kg	SW846 6010C

Summary of Hits

Job Number: MC21383
Account: Barton & Loguidice
Project: Auburn EPA Brownfield Phase II, Auburn, NY
Collected: 05/28/13 thru 05/31/13



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Potassium		2010	490	8.5	mg/kg	SW846 6010C
Sodium		108 B	490	3.3	mg/kg	SW846 6010C
Vanadium		13.7	0.99	0.13	mg/kg	SW846 6010C
Zinc		25.4	2.0	0.16	mg/kg	SW846 6010C

MC21383-26 TRIP BLANK

No hits reported in this sample.

MC21383-27 TRIP BLANK

No hits reported in this sample.

(a) Elevated RL due to dilution required for matrix interference.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	SB-1 6-7'	Date Sampled:	05/28/13
Lab Sample ID:	MC21383-1	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	85.0
Method:	SW846 8260B		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M56878.D	1	06/10/13	KD	n/a	n/a	MSM1949
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.88 g	5.0 ml
Run #2		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	1.3	ug/kg	
71-43-2	Benzene	0.50	0.50	0.29	ug/kg	
75-27-4	Bromodichloromethane	ND	2.0	0.21	ug/kg	
75-25-2	Bromoform	ND	2.0	2.0	ug/kg	
74-83-9	Bromomethane	ND	2.0	0.52	ug/kg	
78-93-3	2-Butanone (MEK)	ND	5.0	1.3	ug/kg	
75-15-0	Carbon disulfide	ND	5.0	0.16	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.0	0.73	ug/kg	
108-90-7	Chlorobenzene	ND	2.0	0.28	ug/kg	
75-00-3	Chloroethane	ND	5.0	1.3	ug/kg	
67-66-3	Chloroform	ND	2.0	0.52	ug/kg	
74-87-3	Chloromethane	ND	5.0	0.46	ug/kg	
124-48-1	Dibromochloromethane	ND	2.0	0.30	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.0	0.27	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.0	0.29	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.0	0.37	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.0	0.30	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.0	0.29	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.0	0.37	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.17	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.50	ug/kg	
100-41-4	Ethylbenzene	ND	2.0	0.24	ug/kg	
591-78-6	2-Hexanone	ND	5.0	1.3	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.50	ug/kg	
75-09-2	Methylene chloride	ND	2.0	1.2	ug/kg	
100-42-5	Styrene	ND	5.0	0.23	ug/kg	
79-34-5	1,1,1,2-Tetrachloroethane	ND	2.0	0.43	ug/kg	
127-18-4	Tetrachloroethene	ND	2.0	0.23	ug/kg	
108-88-3	Toluene	ND	5.0	0.85	ug/kg	
71-55-6	1,1,1-Trichloroethane	0.51	2.0	0.32	ug/kg	J
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.73	ug/kg	
79-01-6	Trichloroethene	ND	2.0	0.21	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-1 6-7'	
Lab Sample ID: MC21383-1	Date Sampled: 05/28/13
Matrix: SO - Soil	Date Received: 06/01/13
Method: SW846 8260B	Percent Solids: 85.0
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl chloride	ND	2.0	0.27	ug/kg	
1330-20-7	Xylene (total)	ND	2.0	0.24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	75%		70-130%
2037-26-5	Toluene-D8	77%		70-130%
460-00-4	4-Bromofluorobenzene	80%		70-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.1
4

Report of Analysis

Client Sample ID:	SB-1 6-7'	Date Sampled:	05/28/13
Lab Sample ID:	MC21383-1	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	85.0
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	F64926.D	1	06/11/13	KR	06/07/13	OP33526	MSF3017

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

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	290	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	580	15	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	580	17	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	580	95	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1200	150	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	580	73	ug/kg	
95-48-7	2-Methylphenol	ND	580	23	ug/kg	
	3&4-Methylphenol	ND	580	28	ug/kg	
88-75-5	2-Nitrophenol	ND	580	16	ug/kg	
100-02-7	4-Nitrophenol	ND	1200	110	ug/kg	
87-86-5	Pentachlorophenol	ND	580	41	ug/kg	
108-95-2	Phenol	ND	290	17	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	580	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	580	14	ug/kg	
83-32-9	Acenaphthene	ND	120	16	ug/kg	
208-96-8	Acenaphthylene	ND	120	12	ug/kg	
120-12-7	Anthracene	ND	120	14	ug/kg	
56-55-3	Benzo(a)anthracene	42.2	120	15	ug/kg	J
50-32-8	Benzo(a)pyrene	30.2	120	13	ug/kg	J
205-99-2	Benzo(b)fluoranthene	35.0	120	15	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	29.7	120	12	ug/kg	J
207-08-9	Benzo(k)fluoranthene	18.1	120	18	ug/kg	J
101-55-3	4-Bromophenyl phenyl ether	ND	290	15	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	290	12	ug/kg	
91-58-7	2-Chloronaphthalene	ND	290	16	ug/kg	
106-47-8	4-Chloroaniline	ND	580	15	ug/kg	
86-74-8	Carbazole	ND	120	14	ug/kg	
218-01-9	Chrysene	36.4	120	15	ug/kg	J
111-91-1	bis(2-Chloroethoxy)methane	ND	290	14	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	290	18	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	290	21	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	290	18	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-1 6-7'	Date Sampled:	05/28/13
Lab Sample ID:	MC21383-1	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	85.0
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	290	15	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	290	17	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	290	16	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	580	39	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	580	11	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	290	13	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	120	14	ug/kg	
132-64-9	Dibenzofuran	ND	120	16	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	290	31	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	290	9.1	ug/kg	
84-66-2	Diethyl phthalate	ND	290	15	ug/kg	
131-11-3	Dimethyl phthalate	ND	290	17	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	128	290	11	ug/kg	J
206-44-0	Fluoranthene	67.7	120	16	ug/kg	J
86-73-7	Fluorene	ND	120	16	ug/kg	
118-74-1	Hexachlorobenzene	ND	290	18	ug/kg	
87-68-3	Hexachlorobutadiene	ND	290	17	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	580	150	ug/kg	
67-72-1	Hexachloroethane	ND	290	14	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	20.9	120	13	ug/kg	J
78-59-1	Isophorone	ND	290	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	120	15	ug/kg	
88-74-4	2-Nitroaniline	ND	580	14	ug/kg	
99-09-2	3-Nitroaniline	ND	580	32	ug/kg	
100-01-6	4-Nitroaniline	ND	580	15	ug/kg	
91-20-3	Naphthalene	ND	120	19	ug/kg	
98-95-3	Nitrobenzene	ND	290	16	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	290	17	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	290	18	ug/kg	
85-01-8	Phenanthrene	56.4	120	16	ug/kg	J
129-00-0	Pyrene	66.3	120	14	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	290	16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	32%		30-130%
4165-62-2	Phenol-d5	40%		30-130%
118-79-6	2,4,6-Tribromophenol	79%		30-130%
4165-60-0	Nitrobenzene-d5	33%		30-130%
321-60-8	2-Fluorobiphenyl	44%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-1 6-7' Lab Sample ID: MC21383-1 Matrix: SO - Soil Method: SW846 8270C SW846 3546 Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 05/28/13 Date Received: 06/01/13 Percent Solids: 85.0
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ABN TCL List

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

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.1
4

Report of Analysis

Client Sample ID: SB-1 6-7' Lab Sample ID: MC21383-1 Matrix: SO - Soil Method: SW846 8082 SW846 3546 Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 05/28/13 Date Received: 06/01/13 Percent Solids: 85.0
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB48668.D	1	06/11/13	CZ	06/07/13	OP33536	GBB2904
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.8 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	37	17	ug/kg	
11104-28-2	Aroclor 1221	ND	37	22	ug/kg	
11141-16-5	Aroclor 1232	ND	37	18	ug/kg	
53469-21-9	Aroclor 1242	ND	37	19	ug/kg	
12672-29-6	Aroclor 1248	ND	37	17	ug/kg	
11097-69-1	Aroclor 1254	53.4	37	27	ug/kg	
11096-82-5	Aroclor 1260	ND	37	19	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	96%		30-150%
877-09-8	Tetrachloro-m-xylene	100%		30-150%
2051-24-3	Decachlorobiphenyl	103%		30-150%
2051-24-3	Decachlorobiphenyl	107%		30-150%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.1
4

Report of Analysis

Client Sample ID: SB-1 6-7'	Date Sampled: 05/28/13
Lab Sample ID: MC21383-1	Date Received: 06/01/13
Matrix: SO - Soil	Percent Solids: 85.0
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	9670	20	3.5	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Antimony	0.15 U	0.98	0.15	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Arsenic	5.2	0.98	0.20	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Barium	439	4.9	0.071	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Beryllium	0.47	0.39	0.023	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Cadmium	0.43	0.39	0.041	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Calcium	132000	4900	62	mg/kg	10	06/11/13	06/13/13	EAL SW846 6010C ³	SW846 3050B ⁵
Chromium	11.6	0.98	0.093	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Cobalt	4.8 B	4.9	0.046	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Copper	42.9	2.5	0.54	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Iron	9900	9.8	0.85	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Lead	122	0.98	0.16	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Magnesium	15800	490	5.0	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Manganese	318	1.5	0.039	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Mercury	0.036	0.036	0.010	mg/kg	1	06/07/13	06/07/13	SA SW846 7471B ¹	SW846 7471B ⁴
Nickel	11.3	3.9	0.043	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Potassium	1620	490	8.4	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Selenium	0.52 B	0.98	0.34	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Silver	0.12 U	0.49	0.12	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Sodium	715	490	3.2	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Thallium	0.13 U	0.98	0.13	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Vanadium	21.7	0.98	0.13	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Zinc	314	2.0	0.16	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵

- (1) Instrument QC Batch: MA15719
- (2) Instrument QC Batch: MA15733
- (3) Instrument QC Batch: MA15744
- (4) Prep QC Batch: MP21134
- (5) Prep QC Batch: MP21149

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	SB-2 9-10.8'	Date Sampled:	05/28/13
Lab Sample ID:	MC21383-2	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	93.2
Method:	SW846 8260B		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M56919.D	1	06/11/13	KD	n/a	n/a	MSM1951
Run #2 ^a	M56879.D	1	06/10/13	KD	n/a	n/a	MSM1949

Run #	Initial Weight	Final Volume
Run #1	4.91 g	5.0 ml
Run #2	6.97 g	5.0 ml

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	11	1.4	ug/kg	
71-43-2	Benzene	ND	0.55	0.32	ug/kg	
75-27-4	Bromodichloromethane	ND	2.2	0.23	ug/kg	
75-25-2	Bromoform	ND	2.2	2.2	ug/kg	
74-83-9	Bromomethane	ND	2.2	0.57	ug/kg	
78-93-3	2-Butanone (MEK)	ND	5.5	1.4	ug/kg	
75-15-0	Carbon disulfide	0.75	5.5	0.18	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.2	0.79	ug/kg	
108-90-7	Chlorobenzene	ND	2.2	0.30	ug/kg	
75-00-3	Chloroethane	ND	5.5	1.4	ug/kg	
67-66-3	Chloroform	ND	2.2	0.56	ug/kg	
74-87-3	Chloromethane	ND	5.5	0.51	ug/kg	
124-48-1	Dibromochloromethane	ND	2.2	0.32	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.2	0.30	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.2	0.31	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.2	0.40	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.2	0.33	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.2	0.31	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.2	0.41	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.2	0.19	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.2	0.54	ug/kg	
100-41-4	Ethylbenzene	ND	2.2	0.26	ug/kg	
591-78-6	2-Hexanone	ND	5.5	1.4	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.5	0.55	ug/kg	
75-09-2	Methylene chloride	ND	2.2	1.3	ug/kg	
100-42-5	Styrene	ND	5.5	0.26	ug/kg	
79-34-5	1,1,1,2-Tetrachloroethane	ND	2.2	0.46	ug/kg	
127-18-4	Tetrachloroethene	ND	2.2	0.25	ug/kg	
108-88-3	Toluene	ND	5.5	0.93	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.2	0.34	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.2	0.80	ug/kg	
79-01-6	Trichloroethene	ND	2.2	0.23	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-2 9-10.8'	
Lab Sample ID: MC21383-2	Date Sampled: 05/28/13
Matrix: SO - Soil	Date Received: 06/01/13
Method: SW846 8260B	Percent Solids: 93.2
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl chloride	ND	2.2	0.30	ug/kg	
1330-20-7	Xylene (total)	ND	2.2	0.26	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	84%	91%	70-130%
2037-26-5	Toluene-D8	74%	68% ^b	70-130%
460-00-4	4-Bromofluorobenzene	129%	175% ^b	70-130%

(a) Confirmation run.

(b) Outside control limits due to possible matrix interference. Confirmed by reanalysis.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.2
4

Report of Analysis

Client Sample ID:	SB-2 9-10.8'	Date Sampled:	05/28/13
Lab Sample ID:	MC21383-2	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	93.2
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F64927.D	1	06/11/13	KR	06/07/13	OP33526	MSF3017
Run #2							

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

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	260	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	520	13	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	520	15	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	520	84	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1000	130	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	520	65	ug/kg	
95-48-7	2-Methylphenol	ND	520	21	ug/kg	
	3&4-Methylphenol	ND	520	25	ug/kg	
88-75-5	2-Nitrophenol	ND	520	14	ug/kg	
100-02-7	4-Nitrophenol	ND	1000	97	ug/kg	
87-86-5	Pentachlorophenol	ND	520	36	ug/kg	
108-95-2	Phenol	ND	260	15	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	520	13	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	520	13	ug/kg	
83-32-9	Acenaphthene	ND	100	14	ug/kg	
208-96-8	Acenaphthylene	ND	100	10	ug/kg	
120-12-7	Anthracene	ND	100	12	ug/kg	
56-55-3	Benzo(a)anthracene	36.8	100	13	ug/kg	J
50-32-8	Benzo(a)pyrene	23.5	100	11	ug/kg	J
205-99-2	Benzo(b)fluoranthene	28.7	100	13	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	ND	100	10	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	100	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	260	13	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	260	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	260	14	ug/kg	
106-47-8	4-Chloroaniline	ND	520	13	ug/kg	
86-74-8	Carbazole	ND	100	12	ug/kg	
218-01-9	Chrysene	29.3	100	13	ug/kg	J
111-91-1	bis(2-Chloroethoxy)methane	ND	260	12	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	260	16	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	260	19	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	260	16	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-2 9-10.8'	Date Sampled:	05/28/13
Lab Sample ID:	MC21383-2	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	93.2
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	260	13	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	260	15	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	260	14	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	520	35	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	520	9.3	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	260	13	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	100	12	ug/kg	
132-64-9	Dibenzofuran	ND	100	14	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	260	27	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	260	8.1	ug/kg	
84-66-2	Diethyl phthalate	ND	260	13	ug/kg	
131-11-3	Dimethyl phthalate	ND	260	15	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	61.1	260	9.5	ug/kg	J
206-44-0	Fluoranthene	60.6	100	14	ug/kg	J
86-73-7	Fluorene	ND	100	14	ug/kg	
118-74-1	Hexachlorobenzene	ND	260	16	ug/kg	
87-68-3	Hexachlorobutadiene	ND	260	15	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	520	130	ug/kg	
67-72-1	Hexachloroethane	ND	260	12	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	100	11	ug/kg	
78-59-1	Isophorone	ND	260	12	ug/kg	
91-57-6	2-Methylnaphthalene	ND	100	13	ug/kg	
88-74-4	2-Nitroaniline	ND	520	12	ug/kg	
99-09-2	3-Nitroaniline	ND	520	28	ug/kg	
100-01-6	4-Nitroaniline	ND	520	13	ug/kg	
91-20-3	Naphthalene	69.7	100	17	ug/kg	J
98-95-3	Nitrobenzene	ND	260	14	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	260	15	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	260	16	ug/kg	
85-01-8	Phenanthrene	32.2	100	14	ug/kg	J
129-00-0	Pyrene	52.4	100	12	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	260	14	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	84%		30-130%
4165-62-2	Phenol-d5	83%		30-130%
118-79-6	2,4,6-Tribromophenol	87%		30-130%
4165-60-0	Nitrobenzene-d5	88%		30-130%
321-60-8	2-Fluorobiphenyl	85%		30-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID: SB-2 9-10.8' Lab Sample ID: MC21383-2 Matrix: SO - Soil Method: SW846 8270C SW846 3546 Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 05/28/13 Date Received: 06/01/13 Percent Solids: 93.2
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ABN TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	100%		30-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.2
4

Report of Analysis

Client Sample ID:	SB-2 9-10.8'	Date Sampled:	05/28/13
Lab Sample ID:	MC21383-2	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	93.2
Method:	SW846 8082 SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK25743.D	1	06/11/13	NK	06/07/13	OP33536	GBK888
Run #2							

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

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	34	16	ug/kg	
11104-28-2	Aroclor 1221	ND	34	21	ug/kg	
11141-16-5	Aroclor 1232	ND	34	16	ug/kg	
53469-21-9	Aroclor 1242	ND	34	17	ug/kg	
12672-29-6	Aroclor 1248	ND	34	15	ug/kg	
11097-69-1	Aroclor 1254	ND	34	25	ug/kg	
11096-82-5	Aroclor 1260	ND	34	17	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	101%		30-150%
877-09-8	Tetrachloro-m-xylene	100%		30-150%
2051-24-3	Decachlorobiphenyl	99%		30-150%
2051-24-3	Decachlorobiphenyl	102%		30-150%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-2 9-10.8'	Date Sampled: 05/28/13
Lab Sample ID: MC21383-2	Date Received: 06/01/13
Matrix: SO - Soil	Percent Solids: 93.2
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	3060	20	3.5	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Antimony	0.15 U	0.98	0.15	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Arsenic	2.7	0.98	0.20	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Barium	43.7	4.9	0.071	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Beryllium	0.20 B	0.39	0.023	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Cadmium	0.041 U	0.39	0.041	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Calcium	151000	4900	61	mg/kg	10	06/11/13	06/13/13	EAL SW846 6010C ³	SW846 3050B ⁵
Chromium	5.9	0.98	0.093	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Cobalt	3.6 B	4.9	0.046	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Copper	7.8	2.4	0.54	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Iron	7790	9.8	0.85	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Lead	4.0	0.98	0.16	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Magnesium	44100	490	5.0	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Manganese	285	1.5	0.039	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Mercury	0.0099 U	0.034	0.0099	mg/kg	1	06/05/13	06/06/13	SA SW846 7471B ¹	SW846 7471B ⁴
Nickel	8.0	3.9	0.043	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Potassium	860	490	8.3	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Selenium	0.34 U	0.98	0.34	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Silver	0.12 U	0.49	0.12	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Sodium	146 B	490	3.2	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Thallium	0.13 U	0.98	0.13	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Vanadium	7.3	0.98	0.13	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Zinc	15.8	2.0	0.16	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵

- (1) Instrument QC Batch: MA15703
- (2) Instrument QC Batch: MA15733
- (3) Instrument QC Batch: MA15744
- (4) Prep QC Batch: MP21118
- (5) Prep QC Batch: MP21149

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	SB-3 9-10'	Date Sampled:	05/28/13
Lab Sample ID:	MC21383-3	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	93.1
Method:	SW846 8260B		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M56920.D	1	06/11/13	KD	n/a	n/a	MSM1951
Run #2 ^a	M56880.D	1	06/10/13	KD	n/a	n/a	MSM1949

Run #	Initial Weight	Final Volume
Run #1	7.17 g	5.0 ml
Run #2	7.03 g	5.0 ml

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	7.5	0.94	ug/kg	
71-43-2	Benzene	ND	0.37	0.22	ug/kg	
75-27-4	Bromodichloromethane	ND	1.5	0.16	ug/kg	
75-25-2	Bromoform	ND	1.5	1.5	ug/kg	
74-83-9	Bromomethane	ND	1.5	0.39	ug/kg	
78-93-3	2-Butanone (MEK)	ND	3.7	0.94	ug/kg	
75-15-0	Carbon disulfide	1.0	3.7	0.12	ug/kg	J
56-23-5	Carbon tetrachloride	ND	1.5	0.54	ug/kg	
108-90-7	Chlorobenzene	ND	1.5	0.21	ug/kg	
75-00-3	Chloroethane	ND	3.7	0.94	ug/kg	
67-66-3	Chloroform	ND	1.5	0.39	ug/kg	
74-87-3	Chloromethane	ND	3.7	0.35	ug/kg	
124-48-1	Dibromochloromethane	ND	1.5	0.22	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.5	0.20	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.5	0.22	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.5	0.28	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.5	0.23	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.5	0.21	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.5	0.28	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.5	0.13	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.5	0.37	ug/kg	
100-41-4	Ethylbenzene	ND	1.5	0.18	ug/kg	
591-78-6	2-Hexanone	ND	3.7	0.94	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	3.7	0.37	ug/kg	
75-09-2	Methylene chloride	ND	1.5	0.87	ug/kg	
100-42-5	Styrene	ND	3.7	0.18	ug/kg	
79-34-5	1,1,1,2-Tetrachloroethane	ND	1.5	0.32	ug/kg	
127-18-4	Tetrachloroethene	ND	1.5	0.17	ug/kg	
108-88-3	Toluene	ND	3.7	0.64	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	1.5	0.24	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.55	ug/kg	
79-01-6	Trichloroethene	ND	1.5	0.16	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-3 9-10' Lab Sample ID: MC21383-3 Matrix: SO - Soil Method: SW846 8260B Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 05/28/13 Date Received: 06/01/13 Percent Solids: 93.1
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VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl chloride	ND	1.5	0.20	ug/kg	
1330-20-7	Xylene (total)	ND	1.5	0.18	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	111%	90%	70-130%
2037-26-5	Toluene-D8	58% ^b	67% ^b	70-130%
460-00-4	4-Bromofluorobenzene	200% ^b	178% ^b	70-130%

(a) Confirmation run.

(b) Outside control limits due to possible matrix interference. Confirmed by reanalysis.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.3
4

Report of Analysis

Client Sample ID:	SB-3 9-10'	Date Sampled:	05/28/13
Lab Sample ID:	MC21383-3	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	93.1
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	F64928.D	1	06/11/13	KR	06/07/13	OP33526	MSF3017

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

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	270	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	530	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	530	15	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	530	87	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	130	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	530	67	ug/kg	
95-48-7	2-Methylphenol	ND	530	21	ug/kg	
	3&4-Methylphenol	ND	530	26	ug/kg	
88-75-5	2-Nitrophenol	ND	530	14	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	530	38	ug/kg	
108-95-2	Phenol	ND	270	15	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	530	13	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	530	13	ug/kg	
83-32-9	Acenaphthene	ND	110	14	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	11	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	13	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	270	13	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	270	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	270	14	ug/kg	
106-47-8	4-Chloroaniline	ND	530	13	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	13	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	270	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	270	16	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	270	19	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	270	16	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-3 9-10'	Date Sampled:	05/28/13
Lab Sample ID:	MC21383-3	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	93.1
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	270	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	270	15	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	270	14	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	530	36	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	530	9.7	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	270	13	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	270	28	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	270	8.3	ug/kg	
84-66-2	Diethyl phthalate	ND	270	13	ug/kg	
131-11-3	Dimethyl phthalate	ND	270	15	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	270	9.9	ug/kg	
206-44-0	Fluoranthene	ND	110	15	ug/kg	
86-73-7	Fluorene	ND	110	14	ug/kg	
118-74-1	Hexachlorobenzene	ND	270	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	270	15	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	530	130	ug/kg	
67-72-1	Hexachloroethane	ND	270	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	270	12	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	530	13	ug/kg	
99-09-2	3-Nitroaniline	ND	530	29	ug/kg	
100-01-6	4-Nitroaniline	ND	530	13	ug/kg	
91-20-3	Naphthalene	ND	110	17	ug/kg	
98-95-3	Nitrobenzene	ND	270	14	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	270	15	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	270	16	ug/kg	
85-01-8	Phenanthrene	ND	110	14	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	270	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	55%		30-130%
4165-62-2	Phenol-d5	56%		30-130%
118-79-6	2,4,6-Tribromophenol	77%		30-130%
4165-60-0	Nitrobenzene-d5	57%		30-130%
321-60-8	2-Fluorobiphenyl	57%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-3 9-10'		Date Sampled: 05/28/13
Lab Sample ID: MC21383-3		Date Received: 06/01/13
Matrix: SO - Soil		Percent Solids: 93.1
Method: SW846 8270C SW846 3546		
Project: Auburn EPA Brownfield Phase II, Auburn, NY		

ABN TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	95%		30-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.3
4

Report of Analysis

Client Sample ID:	SB-3 9-10'	Date Sampled:	05/28/13
Lab Sample ID:	MC21383-3	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	93.1
Method:	SW846 8082 SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK25744.D	1	06/11/13	NK	06/07/13	OP33536	GBK888
Run #2							

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

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	35	16	ug/kg	
11104-28-2	Aroclor 1221	ND	35	21	ug/kg	
11141-16-5	Aroclor 1232	ND	35	16	ug/kg	
53469-21-9	Aroclor 1242	ND	35	17	ug/kg	
12672-29-6	Aroclor 1248	ND	35	15	ug/kg	
11097-69-1	Aroclor 1254	ND	35	25	ug/kg	
11096-82-5	Aroclor 1260	ND	35	18	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	101%		30-150%
877-09-8	Tetrachloro-m-xylene	98%		30-150%
2051-24-3	Decachlorobiphenyl	112%		30-150%
2051-24-3	Decachlorobiphenyl	109%		30-150%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-3 9-10'	Date Sampled: 05/28/13
Lab Sample ID: MC21383-3	Date Received: 06/01/13
Matrix: SO - Soil	Percent Solids: 93.1
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	2860	20	3.6	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Antimony	0.15 U	1.0	0.15	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Arsenic	4.7	1.0	0.21	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Barium	44.5	5.0	0.073	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Beryllium	0.18 B	0.40	0.024	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Cadmium	0.042 U	0.40	0.042	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Calcium	213000	5000	63	mg/kg	10	06/11/13	06/13/13	EAL SW846 6010C ³	SW846 3050B ⁵
Chromium	5.6	1.0	0.095	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Cobalt	4.8 B	5.0	0.047	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Copper	6.4	2.5	0.56	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Iron	8280	10	0.87	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Lead	10.6	1.0	0.17	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Magnesium	35300	500	5.1	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Manganese	264	1.5	0.040	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Mercury	0.034	0.032	0.0092	mg/kg	1	06/05/13	06/06/13	SA SW846 7471B ¹	SW846 7471B ⁴
Nickel	11.4	4.0	0.044	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Potassium	1110	500	8.6	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Selenium	0.35 U	1.0	0.35	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Silver	0.13 U	0.50	0.13	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Sodium	182 B	500	3.3	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Thallium	0.13 U	1.0	0.13	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Vanadium	9.0	1.0	0.13	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Zinc	13.0	2.0	0.16	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵

- (1) Instrument QC Batch: MA15703
- (2) Instrument QC Batch: MA15733
- (3) Instrument QC Batch: MA15744
- (4) Prep QC Batch: MP21118
- (5) Prep QC Batch: MP21149

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	SB-4 7-7.8'	Date Sampled:	05/28/13
Lab Sample ID:	MC21383-4	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	84.6
Method:	SW846 8260B		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M56881.D	1	06/10/13	KD	n/a	n/a	MSM1949
Run #2							

Run #	Initial Weight	Final Volume
Run #1	7.88 g	5.0 ml
Run #2		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	7.5	0.95	ug/kg	
71-43-2	Benzene	0.22	0.38	0.22	ug/kg	J
75-27-4	Bromodichloromethane	ND	1.5	0.16	ug/kg	
75-25-2	Bromoform	ND	1.5	1.5	ug/kg	
74-83-9	Bromomethane	ND	1.5	0.39	ug/kg	
78-93-3	2-Butanone (MEK)	ND	3.8	0.94	ug/kg	
75-15-0	Carbon disulfide	ND	3.8	0.12	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.5	0.54	ug/kg	
108-90-7	Chlorobenzene	ND	1.5	0.21	ug/kg	
75-00-3	Chloroethane	ND	3.8	0.94	ug/kg	
67-66-3	Chloroform	ND	1.5	0.39	ug/kg	
74-87-3	Chloromethane	ND	3.8	0.35	ug/kg	
124-48-1	Dibromochloromethane	ND	1.5	0.22	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.5	0.20	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.5	0.22	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.5	0.28	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.5	0.23	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.5	0.21	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.5	0.28	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.5	0.13	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.5	0.37	ug/kg	
100-41-4	Ethylbenzene	ND	1.5	0.18	ug/kg	
591-78-6	2-Hexanone	ND	3.8	0.94	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	3.8	0.38	ug/kg	
75-09-2	Methylene chloride	ND	1.5	0.87	ug/kg	
100-42-5	Styrene	ND	3.8	0.18	ug/kg	
79-34-5	1,1,1,2-Tetrachloroethane	ND	1.5	0.32	ug/kg	
127-18-4	Tetrachloroethene	ND	1.5	0.17	ug/kg	
108-88-3	Toluene	ND	3.8	0.64	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	1.5	0.24	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.55	ug/kg	
79-01-6	Trichloroethene	ND	1.5	0.16	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-4 7-7.8'	Date Sampled: 05/28/13
Lab Sample ID: MC21383-4	Date Received: 06/01/13
Matrix: SO - Soil	Percent Solids: 84.6
Method: SW846 8260B	
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl chloride	ND	1.5	0.20	ug/kg	
1330-20-7	Xylene (total)	ND	1.5	0.18	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	75%		70-130%
2037-26-5	Toluene-D8	78%		70-130%
460-00-4	4-Bromofluorobenzene	76%		70-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID:	SB-4 7-7.8'	Date Sampled:	05/28/13
Lab Sample ID:	MC21383-4	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	84.6
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F64929.D	1	06/11/13	KR	06/07/13	OP33526	MSF3017
Run #2							

Run #	Initial Weight	Final Volume
Run #1	20.4 g	1.0 ml
Run #2		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	290	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	580	15	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	580	17	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	580	94	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1200	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	580	72	ug/kg	
95-48-7	2-Methylphenol	ND	580	23	ug/kg	
	3&4-Methylphenol	ND	580	28	ug/kg	
88-75-5	2-Nitrophenol	ND	580	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1200	110	ug/kg	
87-86-5	Pentachlorophenol	ND	580	41	ug/kg	
108-95-2	Phenol	ND	290	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	580	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	580	14	ug/kg	
83-32-9	Acenaphthene	ND	120	15	ug/kg	
208-96-8	Acenaphthylene	ND	120	12	ug/kg	
120-12-7	Anthracene	ND	120	14	ug/kg	
56-55-3	Benzo(a)anthracene	ND	120	15	ug/kg	
50-32-8	Benzo(a)pyrene	ND	120	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	120	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	120	12	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	120	17	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	290	15	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	290	12	ug/kg	
91-58-7	2-Chloronaphthalene	ND	290	16	ug/kg	
106-47-8	4-Chloroaniline	ND	580	14	ug/kg	
86-74-8	Carbazole	ND	120	14	ug/kg	
218-01-9	Chrysene	ND	120	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	290	14	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	290	18	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	290	21	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	290	18	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-4 7-7.8'	Date Sampled:	05/28/13
Lab Sample ID:	MC21383-4	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	84.6
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	290	15	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	290	17	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	290	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	580	39	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	580	10	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	290	14	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	120	14	ug/kg	
132-64-9	Dibenzofuran	ND	120	16	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	290	31	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	290	9.0	ug/kg	
84-66-2	Diethyl phthalate	ND	290	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	290	17	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	290	11	ug/kg	
206-44-0	Fluoranthene	ND	120	16	ug/kg	
86-73-7	Fluorene	ND	120	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	290	18	ug/kg	
87-68-3	Hexachlorobutadiene	ND	290	17	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	580	140	ug/kg	
67-72-1	Hexachloroethane	ND	290	14	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	120	13	ug/kg	
78-59-1	Isophorone	ND	290	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	120	15	ug/kg	
88-74-4	2-Nitroaniline	ND	580	14	ug/kg	
99-09-2	3-Nitroaniline	ND	580	32	ug/kg	
100-01-6	4-Nitroaniline	ND	580	14	ug/kg	
91-20-3	Naphthalene	ND	120	19	ug/kg	
98-95-3	Nitrobenzene	ND	290	16	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	290	17	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	290	17	ug/kg	
85-01-8	Phenanthrene	ND	120	16	ug/kg	
129-00-0	Pyrene	ND	120	14	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	290	16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	75%		30-130%
4165-62-2	Phenol-d5	75%		30-130%
118-79-6	2,4,6-Tribromophenol	86%		30-130%
4165-60-0	Nitrobenzene-d5	80%		30-130%
321-60-8	2-Fluorobiphenyl	78%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-4 7-7.8'		Date Sampled: 05/28/13
Lab Sample ID: MC21383-4		Date Received: 06/01/13
Matrix: SO - Soil		Percent Solids: 84.6
Method: SW846 8270C SW846 3546		
Project: Auburn EPA Brownfield Phase II, Auburn, NY		

ABN TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	92%		30-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.4
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Report of Analysis

Client Sample ID: SB-4 7-7.8'	Date Sampled: 05/28/13
Lab Sample ID: MC21383-4	Date Received: 06/01/13
Matrix: SO - Soil	Percent Solids: 84.6
Method: SW846 8082 SW846 3546	
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK25745.D	1	06/11/13	NK	06/07/13	OP33536	GBK888
Run #2							

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

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	38	17	ug/kg	
11104-28-2	Aroclor 1221	ND	38	23	ug/kg	
11141-16-5	Aroclor 1232	ND	38	18	ug/kg	
53469-21-9	Aroclor 1242	ND	38	19	ug/kg	
12672-29-6	Aroclor 1248	ND	38	17	ug/kg	
11097-69-1	Aroclor 1254	ND	38	28	ug/kg	
11096-82-5	Aroclor 1260	ND	38	19	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	102%		30-150%
877-09-8	Tetrachloro-m-xylene	101%		30-150%
2051-24-3	Decachlorobiphenyl	114%		30-150%
2051-24-3	Decachlorobiphenyl	110%		30-150%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-4 7-7.8'	Date Sampled: 05/28/13
Lab Sample ID: MC21383-4	Date Received: 06/01/13
Matrix: SO - Soil	Percent Solids: 84.6
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	3830	20	3.6	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Antimony	0.15 U	0.99	0.15	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Arsenic	5.4	0.99	0.21	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Barium	26.2	5.0	0.072	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Beryllium	0.29 B	0.40	0.024	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Cadmium	0.20 B	0.40	0.042	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Calcium	127000	5000	62	mg/kg	10	06/11/13	06/13/13	EAL SW846 6010C ³	SW846 3050B ⁵
Chromium	7.0	0.99	0.094	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Cobalt	5.5	5.0	0.047	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Copper	13.0	2.5	0.55	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Iron	10500	9.9	0.86	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Lead	6.1	0.99	0.17	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Magnesium	33000	500	5.1	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Manganese	573	1.5	0.040	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Mercury	0.042	0.035	0.010	mg/kg	1	06/05/13	06/06/13	SA SW846 7471B ¹	SW846 7471B ⁴
Nickel	12.9	4.0	0.044	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Potassium	984	500	8.5	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Selenium	0.34 U	0.99	0.34	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Silver	0.12 U	0.50	0.12	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Sodium	113 B	500	3.3	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Thallium	0.13 U	0.99	0.13	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Vanadium	9.8	0.99	0.13	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Zinc	48.7	2.0	0.16	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵

- (1) Instrument QC Batch: MA15703
- (2) Instrument QC Batch: MA15733
- (3) Instrument QC Batch: MA15744
- (4) Prep QC Batch: MP21118
- (5) Prep QC Batch: MP21149

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	SB-5 10-12'	Date Sampled:	05/28/13
Lab Sample ID:	MC21383-5	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	92.3
Method:	SW846 8260B		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M56876.D	1	06/10/13	KD	n/a	n/a	MSM1949
Run #2							

Run #	Initial Weight	Final Volume
Run #1	8.50 g	5.0 ml
Run #2		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	6.4	0.80	ug/kg	
71-43-2	Benzene	ND	0.32	0.19	ug/kg	
75-27-4	Bromodichloromethane	ND	1.3	0.13	ug/kg	
75-25-2	Bromoform	ND	1.3	1.3	ug/kg	
74-83-9	Bromomethane	ND	1.3	0.33	ug/kg	
78-93-3	2-Butanone (MEK)	ND	3.2	0.80	ug/kg	
75-15-0	Carbon disulfide	0.45	3.2	0.10	ug/kg	J
56-23-5	Carbon tetrachloride	ND	1.3	0.46	ug/kg	
108-90-7	Chlorobenzene	ND	1.3	0.18	ug/kg	
75-00-3	Chloroethane	ND	3.2	0.80	ug/kg	
67-66-3	Chloroform	ND	1.3	0.33	ug/kg	
74-87-3	Chloromethane	ND	3.2	0.30	ug/kg	
124-48-1	Dibromochloromethane	ND	1.3	0.19	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.3	0.17	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.3	0.18	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.3	0.23	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.3	0.19	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.3	0.18	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.3	0.24	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.3	0.11	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.3	0.32	ug/kg	
100-41-4	Ethylbenzene	ND	1.3	0.15	ug/kg	
591-78-6	2-Hexanone	ND	3.2	0.80	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	3.2	0.32	ug/kg	
75-09-2	Methylene chloride	ND	1.3	0.74	ug/kg	
100-42-5	Styrene	ND	3.2	0.15	ug/kg	
79-34-5	1,1,1,2-Tetrachloroethane	ND	1.3	0.27	ug/kg	
127-18-4	Tetrachloroethene	ND	1.3	0.15	ug/kg	
108-88-3	Toluene	ND	3.2	0.54	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	1.3	0.20	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	1.3	0.47	ug/kg	
79-01-6	Trichloroethene	ND	1.3	0.13	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-5 10-12'	
Lab Sample ID: MC21383-5	Date Sampled: 05/28/13
Matrix: SO - Soil	Date Received: 06/01/13
Method: SW846 8260B	Percent Solids: 92.3
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl chloride	ND	1.3	0.17	ug/kg	
1330-20-7	Xylene (total)	ND	1.3	0.15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	77%		70-130%
2037-26-5	Toluene-D8	76%		70-130%
460-00-4	4-Bromofluorobenzene	96%		70-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID:	SB-5 10-12'	Date Sampled:	05/28/13
Lab Sample ID:	MC21383-5	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	92.3
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R31404.D	1	06/13/13	KR	06/07/13	OP33529	MSR1143
Run #2							

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

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	270	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	530	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	530	15	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	530	87	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	130	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	530	67	ug/kg	
95-48-7	2-Methylphenol	ND	530	21	ug/kg	
	3&4-Methylphenol	ND	530	26	ug/kg	
88-75-5	2-Nitrophenol	ND	530	14	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	530	38	ug/kg	
108-95-2	Phenol	ND	270	15	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	530	13	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	530	13	ug/kg	
83-32-9	Acenaphthene	ND	110	14	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	11	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	13	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	270	13	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	270	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	270	14	ug/kg	
106-47-8	4-Chloroaniline	ND	530	13	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	13	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	270	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	270	16	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	270	19	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	270	16	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-5 10-12'	Date Sampled:	05/28/13
Lab Sample ID:	MC21383-5	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	92.3
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	270	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	270	15	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	270	14	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	530	36	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	530	9.6	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	270	13	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	270	28	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	270	8.3	ug/kg	
84-66-2	Diethyl phthalate	ND	270	13	ug/kg	
131-11-3	Dimethyl phthalate	ND	270	15	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	20.3	270	9.9	ug/kg	J
206-44-0	Fluoranthene	ND	110	15	ug/kg	
86-73-7	Fluorene	ND	110	14	ug/kg	
118-74-1	Hexachlorobenzene	ND	270	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	270	15	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	530	130	ug/kg	
67-72-1	Hexachloroethane	ND	270	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	270	12	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	530	13	ug/kg	
99-09-2	3-Nitroaniline	ND	530	29	ug/kg	
100-01-6	4-Nitroaniline	ND	530	13	ug/kg	
91-20-3	Naphthalene	ND	110	17	ug/kg	
98-95-3	Nitrobenzene	ND	270	14	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	270	15	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	270	16	ug/kg	
85-01-8	Phenanthrene	ND	110	14	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	270	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	48%		30-130%
4165-62-2	Phenol-d5	45%		30-130%
118-79-6	2,4,6-Tribromophenol	50%		30-130%
4165-60-0	Nitrobenzene-d5	47%		30-130%
321-60-8	2-Fluorobiphenyl	52%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-5 10-12' Lab Sample ID: MC21383-5 Matrix: SO - Soil Method: SW846 8270C SW846 3546 Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 05/28/13 Date Received: 06/01/13 Percent Solids: 92.3
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ABN TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	71%		30-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.5
4

Report of Analysis

Client Sample ID: SB-5 10-12' Lab Sample ID: MC21383-5 Matrix: SO - Soil Method: SW846 8082 SW846 3546 Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 05/28/13 Date Received: 06/01/13 Percent Solids: 92.3
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB48673.D	1	06/11/13	CZ	06/07/13	OP33538	GBB2904
Run #2							

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

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	36	16	ug/kg	
11104-28-2	Aroclor 1221	ND	36	21	ug/kg	
11141-16-5	Aroclor 1232	ND	36	17	ug/kg	
53469-21-9	Aroclor 1242	ND	36	18	ug/kg	
12672-29-6	Aroclor 1248	ND	36	16	ug/kg	
11097-69-1	Aroclor 1254	ND	36	26	ug/kg	
11096-82-5	Aroclor 1260	ND	36	18	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	83%		30-150%
877-09-8	Tetrachloro-m-xylene	85%		30-150%
2051-24-3	Decachlorobiphenyl	82%		30-150%
2051-24-3	Decachlorobiphenyl	82%		30-150%

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

4.5
4

Report of Analysis

Client Sample ID: SB-5 10-12'	Date Sampled: 05/28/13
Lab Sample ID: MC21383-5	Date Received: 06/01/13
Matrix: SO - Soil	Percent Solids: 92.3
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	3500	21	3.7	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Antimony	0.16 U	1.0	0.16	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Arsenic	2.7	1.0	0.21	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Barium	50.1	5.2	0.075	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Beryllium	0.22 B	0.41	0.025	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Cadmium	0.044 U	0.41	0.044	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Calcium	128000	5200	65	mg/kg	10	06/11/13	06/13/13	EAL SW846 6010C ³	SW846 3050B ⁵
Chromium	6.0	1.0	0.098	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Cobalt	4.5 B	5.2	0.048	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Copper	9.1	2.6	0.57	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Iron	8090	10	0.90	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Lead	4.2	1.0	0.17	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Magnesium	30800	520	5.3	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Manganese	267	1.5	0.041	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Mercury	0.034	0.033	0.0097	mg/kg	1	06/05/13	06/06/13	SA SW846 7471B ¹	SW846 7471B ⁴
Nickel	9.2	4.1	0.045	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Potassium	979	520	8.8	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Selenium	0.36 U	1.0	0.36	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Silver	0.13 U	0.52	0.13	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Sodium	135 B	520	3.4	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Thallium	0.14 U	1.0	0.14	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Vanadium	8.0	1.0	0.14	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Zinc	20.1	2.1	0.17	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵

- (1) Instrument QC Batch: MA15703
- (2) Instrument QC Batch: MA15733
- (3) Instrument QC Batch: MA15744
- (4) Prep QC Batch: MP21118
- (5) Prep QC Batch: MP21149

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	SB-6 2-4'	Date Sampled:	05/28/13
Lab Sample ID:	MC21383-6	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	92.7
Method:	SW846 8260B		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M56882.D	1	06/10/13	KD	n/a	n/a	MSM1949
Run #2							

Run #	Initial Weight	Final Volume
Run #1	6.29 g	5.0 ml
Run #2		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	143	8.6	1.1	ug/kg	
71-43-2	Benzene	ND	0.43	0.25	ug/kg	
75-27-4	Bromodichloromethane	ND	1.7	0.18	ug/kg	
75-25-2	Bromoform	ND	1.7	1.7	ug/kg	
74-83-9	Bromomethane	ND	1.7	0.45	ug/kg	
78-93-3	2-Butanone (MEK)	ND	4.3	1.1	ug/kg	
75-15-0	Carbon disulfide	0.69	4.3	0.14	ug/kg	J
56-23-5	Carbon tetrachloride	ND	1.7	0.62	ug/kg	
108-90-7	Chlorobenzene	ND	1.7	0.24	ug/kg	
75-00-3	Chloroethane	ND	4.3	1.1	ug/kg	
67-66-3	Chloroform	ND	1.7	0.44	ug/kg	
74-87-3	Chloromethane	0.93	4.3	0.40	ug/kg	J
124-48-1	Dibromochloromethane	ND	1.7	0.25	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.7	0.23	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.7	0.25	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.7	0.32	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.7	0.26	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.7	0.25	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.7	0.32	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.7	0.15	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.7	0.43	ug/kg	
100-41-4	Ethylbenzene	ND	1.7	0.21	ug/kg	
591-78-6	2-Hexanone	ND	4.3	1.1	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.3	0.43	ug/kg	
75-09-2	Methylene chloride	ND	1.7	0.99	ug/kg	
100-42-5	Styrene	ND	4.3	0.20	ug/kg	
79-34-5	1,1,1,2-Tetrachloroethane	ND	1.7	0.36	ug/kg	
127-18-4	Tetrachloroethene	ND	1.7	0.20	ug/kg	
108-88-3	Toluene	ND	4.3	0.73	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	1.7	0.27	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	1.7	0.63	ug/kg	
79-01-6	Trichloroethene	ND	1.7	0.18	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-6 2-4'	
Lab Sample ID: MC21383-6	Date Sampled: 05/28/13
Matrix: SO - Soil	Date Received: 06/01/13
Method: SW846 8260B	Percent Solids: 92.7
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl chloride	ND	1.7	0.23	ug/kg	
1330-20-7	Xylene (total)	ND	1.7	0.21	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	75%		70-130%
2037-26-5	Toluene-D8	77%		70-130%
460-00-4	4-Bromofluorobenzene	75%		70-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID:	SB-6 2-4'	Date Sampled:	05/28/13
Lab Sample ID:	MC21383-6	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	92.7
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	F64930.D	1	06/11/13	KR	06/07/13	OP33526	MSF3017

Run #1	Initial Weight	Final Volume
Run #2	20.9 g	1.0 ml

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	260	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	520	13	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	520	15	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	520	84	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1000	130	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	520	65	ug/kg	
95-48-7	2-Methylphenol	ND	520	21	ug/kg	
	3&4-Methylphenol	ND	520	25	ug/kg	
88-75-5	2-Nitrophenol	ND	520	14	ug/kg	
100-02-7	4-Nitrophenol	ND	1000	97	ug/kg	
87-86-5	Pentachlorophenol	ND	520	36	ug/kg	
108-95-2	Phenol	ND	260	15	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	520	13	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	520	13	ug/kg	
83-32-9	Acenaphthene	ND	100	14	ug/kg	
208-96-8	Acenaphthylene	ND	100	10	ug/kg	
120-12-7	Anthracene	ND	100	12	ug/kg	
56-55-3	Benzo(a)anthracene	ND	100	13	ug/kg	
50-32-8	Benzo(a)pyrene	ND	100	11	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	100	13	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	100	10	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	100	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	260	13	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	260	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	260	14	ug/kg	
106-47-8	4-Chloroaniline	ND	520	13	ug/kg	
86-74-8	Carbazole	ND	100	12	ug/kg	
218-01-9	Chrysene	ND	100	13	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	260	12	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	260	16	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	260	19	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	260	16	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-6 2-4'	Date Sampled:	05/28/13
Lab Sample ID:	MC21383-6	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	92.7
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	260	13	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	260	15	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	260	14	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	520	35	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	520	9.4	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	260	13	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	100	12	ug/kg	
132-64-9	Dibenzofuran	ND	100	14	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	260	27	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	260	8.1	ug/kg	
84-66-2	Diethyl phthalate	ND	260	13	ug/kg	
131-11-3	Dimethyl phthalate	ND	260	15	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	260	9.6	ug/kg	
206-44-0	Fluoranthene	28.4	100	14	ug/kg	J
86-73-7	Fluorene	ND	100	14	ug/kg	
118-74-1	Hexachlorobenzene	ND	260	16	ug/kg	
87-68-3	Hexachlorobutadiene	ND	260	15	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	520	130	ug/kg	
67-72-1	Hexachloroethane	ND	260	12	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	100	11	ug/kg	
78-59-1	Isophorone	ND	260	12	ug/kg	
91-57-6	2-Methylnaphthalene	ND	100	13	ug/kg	
88-74-4	2-Nitroaniline	ND	520	12	ug/kg	
99-09-2	3-Nitroaniline	ND	520	28	ug/kg	
100-01-6	4-Nitroaniline	ND	520	13	ug/kg	
91-20-3	Naphthalene	ND	100	17	ug/kg	
98-95-3	Nitrobenzene	ND	260	14	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	260	15	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	260	16	ug/kg	
85-01-8	Phenanthrene	ND	100	14	ug/kg	
129-00-0	Pyrene	24.4	100	12	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	260	14	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	76%		30-130%
4165-62-2	Phenol-d5	75%		30-130%
118-79-6	2,4,6-Tribromophenol	80%		30-130%
4165-60-0	Nitrobenzene-d5	79%		30-130%
321-60-8	2-Fluorobiphenyl	76%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-6 2-4' Lab Sample ID: MC21383-6 Matrix: SO - Soil Method: SW846 8270C SW846 3546 Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 05/28/13 Date Received: 06/01/13 Percent Solids: 92.7
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ABN TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	89%		30-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.6
4

Report of Analysis

Client Sample ID:	SB-6 2-4'	Date Sampled:	05/28/13
Lab Sample ID:	MC21383-6	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	92.7
Method:	SW846 8082 SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK25747.D	1	06/11/13	NK	06/07/13	OP33536	GBK888
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.4 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	35	16	ug/kg	
11104-28-2	Aroclor 1221	ND	35	21	ug/kg	
11141-16-5	Aroclor 1232	ND	35	17	ug/kg	
53469-21-9	Aroclor 1242	ND	35	18	ug/kg	
12672-29-6	Aroclor 1248	ND	35	16	ug/kg	
11097-69-1	Aroclor 1254	ND	35	26	ug/kg	
11096-82-5	Aroclor 1260	ND	35	18	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	107%		30-150%
877-09-8	Tetrachloro-m-xylene	105%		30-150%
2051-24-3	Decachlorobiphenyl	110%		30-150%
2051-24-3	Decachlorobiphenyl	109%		30-150%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-6 2-4'	Date Sampled: 05/28/13
Lab Sample ID: MC21383-6	Date Received: 06/01/13
Matrix: SO - Soil	Percent Solids: 92.7
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	2880	20	3.5	mg/kg	1	06/11/13	06/11/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Antimony	0.15 U	0.98	0.15	mg/kg	1	06/11/13	06/11/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Arsenic	4.2	0.98	0.20	mg/kg	1	06/11/13	06/11/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Barium	23.9	4.9	0.071	mg/kg	1	06/11/13	06/11/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Beryllium	0.43	0.39	0.023	mg/kg	1	06/11/13	06/11/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Cadmium	0.059 B	0.39	0.041	mg/kg	1	06/11/13	06/11/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Calcium	2300	490	6.2	mg/kg	1	06/11/13	06/11/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Chromium	5.6	0.98	0.093	mg/kg	1	06/11/13	06/11/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Cobalt	6.0	4.9	0.046	mg/kg	1	06/11/13	06/11/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Copper	8.2	2.5	0.54	mg/kg	1	06/11/13	06/11/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Iron	41600	9.8	0.85	mg/kg	1	06/11/13	06/11/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Lead	5.8	0.98	0.16	mg/kg	1	06/11/13	06/11/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Magnesium	1200	490	5.0	mg/kg	1	06/11/13	06/11/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Manganese	247	1.5	0.039	mg/kg	1	06/11/13	06/11/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Mercury	0.057	0.034	0.0098	mg/kg	1	06/05/13	06/06/13 SA	SW846 7471B ¹	SW846 7471B ³
Nickel	18.7	3.9	0.043	mg/kg	1	06/11/13	06/11/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Potassium	212 B	490	8.4	mg/kg	1	06/11/13	06/11/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Selenium	0.39 B	0.98	0.34	mg/kg	1	06/11/13	06/11/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Silver	0.12 U	0.49	0.12	mg/kg	1	06/11/13	06/11/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Sodium	150 B	490	3.2	mg/kg	1	06/11/13	06/11/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Thallium	0.13 U	0.98	0.13	mg/kg	1	06/11/13	06/11/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Vanadium	8.6	0.98	0.13	mg/kg	1	06/11/13	06/11/13 EAL	SW846 6010C ²	SW846 3050B ⁴
Zinc	15.7	2.0	0.16	mg/kg	1	06/11/13	06/11/13 EAL	SW846 6010C ²	SW846 3050B ⁴

- (1) Instrument QC Batch: MA15703
- (2) Instrument QC Batch: MA15733
- (3) Prep QC Batch: MP21118
- (4) Prep QC Batch: MP21149

RL = Reporting Limit
 MDL = Method Detection Limit

U = Indicates a result < MDL
 B = Indicates a result > = MDL but < RL

4.6
4

Report of Analysis

Client Sample ID:	SB-6 7-9'	Date Sampled:	05/28/13
Lab Sample ID:	MC21383-7	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	88.7
Method:	SW846 8260B		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M56883.D	1	06/10/13	KD	n/a	n/a	MSM1949
Run #2							

Run #	Initial Weight	Final Volume
Run #1	8.08 g	5.0 ml
Run #2		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	7.0	0.88	ug/kg	
71-43-2	Benzene	0.27	0.35	0.21	ug/kg	J
75-27-4	Bromodichloromethane	ND	1.4	0.15	ug/kg	
75-25-2	Bromoform	ND	1.4	1.4	ug/kg	
74-83-9	Bromomethane	ND	1.4	0.36	ug/kg	
78-93-3	2-Butanone (MEK)	ND	3.5	0.87	ug/kg	
75-15-0	Carbon disulfide	ND	3.5	0.11	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.4	0.51	ug/kg	
108-90-7	Chlorobenzene	ND	1.4	0.19	ug/kg	
75-00-3	Chloroethane	ND	3.5	0.88	ug/kg	
67-66-3	Chloroform	ND	1.4	0.36	ug/kg	
74-87-3	Chloromethane	ND	3.5	0.32	ug/kg	
124-48-1	Dibromochloromethane	ND	1.4	0.21	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.4	0.19	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.4	0.20	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.4	0.26	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.4	0.21	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.4	0.20	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.4	0.26	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.4	0.12	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.4	0.35	ug/kg	
100-41-4	Ethylbenzene	ND	1.4	0.17	ug/kg	
591-78-6	2-Hexanone	ND	3.5	0.87	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	3.5	0.35	ug/kg	
75-09-2	Methylene chloride	ND	1.4	0.81	ug/kg	
100-42-5	Styrene	ND	3.5	0.16	ug/kg	
79-34-5	1,1,1,2-Tetrachloroethane	ND	1.4	0.30	ug/kg	
127-18-4	Tetrachloroethene	ND	1.4	0.16	ug/kg	
108-88-3	Toluene	ND	3.5	0.59	ug/kg	
71-55-6	1,1,1-Trichloroethane	0.28	1.4	0.22	ug/kg	J
79-00-5	1,1,2-Trichloroethane	ND	1.4	0.51	ug/kg	
79-01-6	Trichloroethene	ND	1.4	0.15	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-6 7-9' Lab Sample ID: MC21383-7 Matrix: SO - Soil Method: SW846 8260B Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 05/28/13 Date Received: 06/01/13 Percent Solids: 88.7
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VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl chloride	ND	1.4	0.19	ug/kg	
1330-20-7	Xylene (total)	ND	1.4	0.17	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	79%		70-130%
2037-26-5	Toluene-D8	76%		70-130%
460-00-4	4-Bromofluorobenzene	103%		70-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.7
4

Report of Analysis

Client Sample ID:	SB-6 7-9'	Date Sampled:	05/28/13
Lab Sample ID:	MC21383-7	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	88.7
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F64931.D	1	06/11/13	KR	06/07/13	OP33526	MSF3017
Run #2							

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

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	280	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	560	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	560	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	560	91	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	560	70	ug/kg	
95-48-7	2-Methylphenol	ND	560	22	ug/kg	
	3&4-Methylphenol	ND	560	27	ug/kg	
88-75-5	2-Nitrophenol	ND	560	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	560	39	ug/kg	
108-95-2	Phenol	ND	280	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	560	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	560	14	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	100	110	13	ug/kg	J
56-55-3	Benzo(a)anthracene	562	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	450	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	358	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	248	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	423	110	17	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	280	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	280	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	280	15	ug/kg	
106-47-8	4-Chloroaniline	ND	560	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	524	110	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	280	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	280	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	280	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	280	17	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-6 7-9'		Date Sampled: 05/28/13
Lab Sample ID: MC21383-7		Date Received: 06/01/13
Matrix: SO - Soil		Percent Solids: 88.7
Method: SW846 8270C SW846 3546		
Project: Auburn EPA Brownfield Phase II, Auburn, NY		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	280	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	280	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	280	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	560	37	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	560	10	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	280	14	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	98.2	110	13	ug/kg	J
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	280	30	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	280	8.7	ug/kg	
84-66-2	Diethyl phthalate	ND	280	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	280	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	152	280	10	ug/kg	J
206-44-0	Fluoranthene	880	110	15	ug/kg	
86-73-7	Fluorene	ND	110	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	280	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	280	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	560	140	ug/kg	
67-72-1	Hexachloroethane	ND	280	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	228	110	12	ug/kg	
78-59-1	Isophorone	ND	280	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	560	13	ug/kg	
99-09-2	3-Nitroaniline	ND	560	31	ug/kg	
100-01-6	4-Nitroaniline	ND	560	14	ug/kg	
91-20-3	Naphthalene	ND	110	18	ug/kg	
98-95-3	Nitrobenzene	ND	280	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	280	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	280	17	ug/kg	
85-01-8	Phenanthrene	323	110	15	ug/kg	
129-00-0	Pyrene	756	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	280	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	60%		30-130%
4165-62-2	Phenol-d5	62%		30-130%
118-79-6	2,4,6-Tribromophenol	85%		30-130%
4165-60-0	Nitrobenzene-d5	64%		30-130%
321-60-8	2-Fluorobiphenyl	68%		30-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.7
4

Report of Analysis

Client Sample ID: SB-6 7-9'		Date Sampled: 05/28/13
Lab Sample ID: MC21383-7		Date Received: 06/01/13
Matrix: SO - Soil		Percent Solids: 88.7
Method: SW846 8270C SW846 3546		
Project: Auburn EPA Brownfield Phase II, Auburn, NY		

ABN TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	92%		30-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.7
4

Report of Analysis

Client Sample ID: SB-6 7-9' Lab Sample ID: MC21383-7 Matrix: SO - Soil Method: SW846 8082 SW846 3546 Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 05/28/13 Date Received: 06/01/13 Percent Solids: 88.7
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK25748.D	1	06/11/13	NK	06/07/13	OP33536	GBK888
Run #2							

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

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	36	16	ug/kg	
11104-28-2	Aroclor 1221	ND	36	21	ug/kg	
11141-16-5	Aroclor 1232	ND	36	17	ug/kg	
53469-21-9	Aroclor 1242	ND	36	18	ug/kg	
12672-29-6	Aroclor 1248	ND	36	16	ug/kg	
11097-69-1	Aroclor 1254	ND	36	26	ug/kg	
11096-82-5	Aroclor 1260	ND	36	18	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	107%		30-150%
877-09-8	Tetrachloro-m-xylene	103%		30-150%
2051-24-3	Decachlorobiphenyl	105%		30-150%
2051-24-3	Decachlorobiphenyl	113%		30-150%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.7
4

Report of Analysis

Client Sample ID: SB-6 7-9'	Date Sampled: 05/28/13
Lab Sample ID: MC21383-7	Date Received: 06/01/13
Matrix: SO - Soil	Percent Solids: 88.7
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	4820	19	3.5	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁴
Antimony	0.15 U	0.97	0.15	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁴
Arsenic	5.1	0.97	0.20	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁴
Barium	72.7	4.9	0.071	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁴
Beryllium	0.32 B	0.39	0.023	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁴
Cadmium	0.11 B	0.39	0.041	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁴
Calcium	29600	490	6.1	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁴
Chromium	33.4	0.97	0.092	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁴
Cobalt	4.6 B	4.9	0.046	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁴
Copper	23.1	2.4	0.54	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁴
Iron	12600	9.7	0.85	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁴
Lead	22.0	0.97	0.16	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁴
Magnesium	10000	490	5.0	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁴
Manganese	253	1.5	0.039	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁴
Mercury	0.047	0.034	0.0098	mg/kg	1	06/05/13	06/06/13	SA SW846 7471B ¹	SW846 7471B ³
Nickel	13.3	3.9	0.043	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁴
Potassium	741	490	8.3	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁴
Selenium	0.37 B	0.97	0.34	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁴
Silver	0.12 U	0.49	0.12	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁴
Sodium	204 B	490	3.2	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁴
Thallium	0.13 U	0.97	0.13	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁴
Vanadium	10.7	0.97	0.13	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁴
Zinc	42.0	1.9	0.16	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁴

(1) Instrument QC Batch: MA15703

(2) Instrument QC Batch: MA15733

(3) Prep QC Batch: MP21118

(4) Prep QC Batch: MP21149

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: DUP-1	Date Sampled: 05/28/13
Lab Sample ID: MC21383-8	Date Received: 06/01/13
Matrix: SO - Soil	Percent Solids: 93.1
Method: SW846 8260B	
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M56921.D	1	06/11/13	KD	n/a	n/a	MSM1951
Run #2 ^a	M56884.D	1	06/10/13	KD	n/a	n/a	MSM1949

Run #	Initial Weight	Final Volume
Run #1	4.04 g	5.0 ml
Run #2	3.97 g	5.0 ml

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	13	1.7	ug/kg	
71-43-2	Benzene	ND	0.66	0.39	ug/kg	
75-27-4	Bromodichloromethane	ND	2.7	0.28	ug/kg	
75-25-2	Bromoform	ND	2.7	2.7	ug/kg	
74-83-9	Bromomethane	ND	2.7	0.69	ug/kg	
78-93-3	2-Butanone (MEK)	ND	6.6	1.7	ug/kg	
75-15-0	Carbon disulfide	1.2	6.6	0.22	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.7	0.97	ug/kg	
108-90-7	Chlorobenzene	ND	2.7	0.37	ug/kg	
75-00-3	Chloroethane	ND	6.6	1.7	ug/kg	
67-66-3	Chloroform	ND	2.7	0.69	ug/kg	
74-87-3	Chloromethane	ND	6.6	0.62	ug/kg	
124-48-1	Dibromochloromethane	ND	2.7	0.39	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.7	0.36	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.7	0.38	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.7	0.49	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.7	0.40	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.7	0.38	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.7	0.49	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.7	0.23	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.7	0.66	ug/kg	
100-41-4	Ethylbenzene	ND	2.7	0.32	ug/kg	
591-78-6	2-Hexanone	ND	6.6	1.7	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	6.6	0.66	ug/kg	
75-09-2	Methylene chloride	ND	2.7	1.5	ug/kg	
100-42-5	Styrene	ND	6.6	0.31	ug/kg	
79-34-5	1,1,1,2-Tetrachloroethane	ND	2.7	0.56	ug/kg	
127-18-4	Tetrachloroethene	ND	2.7	0.30	ug/kg	
108-88-3	Toluene	ND	6.6	1.1	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.7	0.42	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.7	0.98	ug/kg	
79-01-6	Trichloroethene	ND	2.7	0.28	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: DUP-1	
Lab Sample ID: MC21383-8	Date Sampled: 05/28/13
Matrix: SO - Soil	Date Received: 06/01/13
Method: SW846 8260B	Percent Solids: 93.1
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl chloride	ND	2.7	0.36	ug/kg	
1330-20-7	Xylene (total)	ND	2.7	0.32	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	78%	78%	70-130%
2037-26-5	Toluene-D8	76%	71%	70-130%
460-00-4	4-Bromofluorobenzene	103%	112%	70-130%

(a) Confirmation run.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID:	DUP-1	Date Sampled:	05/28/13
Lab Sample ID:	MC21383-8	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	93.1
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F64932.D	1	06/11/13	KR	06/07/13	OP33526	MSF3017
Run #2							

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

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	260	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	520	13	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	520	15	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	520	85	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1000	130	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	520	65	ug/kg	
95-48-7	2-Methylphenol	ND	520	21	ug/kg	
	3&4-Methylphenol	ND	520	25	ug/kg	
88-75-5	2-Nitrophenol	ND	520	14	ug/kg	
100-02-7	4-Nitrophenol	ND	1000	97	ug/kg	
87-86-5	Pentachlorophenol	ND	520	37	ug/kg	
108-95-2	Phenol	ND	260	15	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	520	13	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	520	13	ug/kg	
83-32-9	Acenaphthene	ND	100	14	ug/kg	
208-96-8	Acenaphthylene	ND	100	10	ug/kg	
120-12-7	Anthracene	ND	100	13	ug/kg	
56-55-3	Benzo(a)anthracene	32.9	100	13	ug/kg	J
50-32-8	Benzo(a)pyrene	ND	100	11	ug/kg	
205-99-2	Benzo(b)fluoranthene	18.4	100	13	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	ND	100	10	ug/kg	
207-08-9	Benzo(k)fluoranthene	19.9	100	16	ug/kg	J
101-55-3	4-Bromophenyl phenyl ether	ND	260	13	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	260	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	260	14	ug/kg	
106-47-8	4-Chloroaniline	ND	520	13	ug/kg	
86-74-8	Carbazole	ND	100	12	ug/kg	
218-01-9	Chrysene	28.2	100	13	ug/kg	J
111-91-1	bis(2-Chloroethoxy)methane	ND	260	12	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	260	16	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	260	19	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	260	16	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP-1	Date Sampled:	05/28/13
Lab Sample ID:	MC21383-8	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	93.1
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	260	13	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	260	15	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	260	14	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	520	35	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	520	9.4	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	260	13	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	100	12	ug/kg	
132-64-9	Dibenzofuran	ND	100	14	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	260	28	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	260	8.1	ug/kg	
84-66-2	Diethyl phthalate	ND	260	13	ug/kg	
131-11-3	Dimethyl phthalate	ND	260	15	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	260	9.6	ug/kg	
206-44-0	Fluoranthene	57.7	100	14	ug/kg	J
86-73-7	Fluorene	ND	100	14	ug/kg	
118-74-1	Hexachlorobenzene	ND	260	16	ug/kg	
87-68-3	Hexachlorobutadiene	ND	260	15	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	520	130	ug/kg	
67-72-1	Hexachloroethane	ND	260	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	100	11	ug/kg	
78-59-1	Isophorone	ND	260	12	ug/kg	
91-57-6	2-Methylnaphthalene	ND	100	13	ug/kg	
88-74-4	2-Nitroaniline	ND	520	12	ug/kg	
99-09-2	3-Nitroaniline	ND	520	28	ug/kg	
100-01-6	4-Nitroaniline	ND	520	13	ug/kg	
91-20-3	Naphthalene	ND	100	17	ug/kg	
98-95-3	Nitrobenzene	ND	260	14	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	260	15	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	260	16	ug/kg	
85-01-8	Phenanthrene	36.0	100	14	ug/kg	J
129-00-0	Pyrene	50.3	100	12	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	260	14	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	70%		30-130%
4165-62-2	Phenol-d5	69%		30-130%
118-79-6	2,4,6-Tribromophenol	76%		30-130%
4165-60-0	Nitrobenzene-d5	73%		30-130%
321-60-8	2-Fluorobiphenyl	71%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: DUP-1	Date Sampled: 05/28/13
Lab Sample ID: MC21383-8	Date Received: 06/01/13
Matrix: SO - Soil	Percent Solids: 93.1
Method: SW846 8270C SW846 3546	
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

ABN TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	87%		30-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.8
4

Report of Analysis

Client Sample ID:	DUP-1	Date Sampled:	05/28/13
Lab Sample ID:	MC21383-8	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	93.1
Method:	SW846 8082 SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK25749.D	1	06/11/13	NK	06/07/13	OP33536	GBK888
Run #2							

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

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	34	16	ug/kg	
11104-28-2	Aroclor 1221	ND	34	20	ug/kg	
11141-16-5	Aroclor 1232	ND	34	16	ug/kg	
53469-21-9	Aroclor 1242	ND	34	17	ug/kg	
12672-29-6	Aroclor 1248	ND	34	15	ug/kg	
11097-69-1	Aroclor 1254	ND	34	25	ug/kg	
11096-82-5	Aroclor 1260	ND	34	17	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	88%		30-150%
877-09-8	Tetrachloro-m-xylene	93%		30-150%
2051-24-3	Decachlorobiphenyl	100%		30-150%
2051-24-3	Decachlorobiphenyl	104%		30-150%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: DUP-1	Date Sampled: 05/28/13
Lab Sample ID: MC21383-8	Date Received: 06/01/13
Matrix: SO - Soil	Percent Solids: 93.1
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	3200	20	3.6	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Antimony	0.15 U	1.0	0.15	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Arsenic	2.7	1.0	0.21	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Barium	93.5	5.0	0.073	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Beryllium	0.20 B	0.40	0.024	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Cadmium	0.042 U	0.40	0.042	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Calcium	154000	5000	63	mg/kg	10	06/11/13	06/13/13	EAL SW846 6010C ³	SW846 3050B ⁵
Chromium	5.8	1.0	0.095	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Cobalt	4.1 B	5.0	0.047	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Copper	8.7	2.5	0.56	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Iron	7800	10	0.87	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Lead	4.0	1.0	0.17	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Magnesium	29200	500	5.1	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Manganese	290	1.5	0.040	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Mercury	0.035	0.032	0.0093	mg/kg	1	06/05/13	06/06/13	SA SW846 7471B ¹	SW846 7471B ⁴
Nickel	8.8	4.0	0.044	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Potassium	868	500	8.6	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Selenium	0.35 U	1.0	0.35	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Silver	0.13 U	0.50	0.13	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Sodium	137 B	500	3.3	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Thallium	0.13 U	1.0	0.13	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Vanadium	6.9	1.0	0.13	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Zinc	20.1	2.0	0.16	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵

- (1) Instrument QC Batch: MA15703
- (2) Instrument QC Batch: MA15733
- (3) Instrument QC Batch: MA15744
- (4) Prep QC Batch: MP21118
- (5) Prep QC Batch: MP21149

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	SB-7 8.5-9.5'	Date Sampled:	05/29/13
Lab Sample ID:	MC21383-9	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	40.9
Method:	SW846 8260B		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M56947.D	1	06/12/13	KD	n/a	n/a	MSM1952
Run #2							

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

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	3.1	ug/kg	
71-43-2	Benzene	ND	1.2	0.73	ug/kg	
75-27-4	Bromodichloromethane	ND	5.0	0.53	ug/kg	
75-25-2	Bromoform	ND	5.0	5.0	ug/kg	
74-83-9	Bromomethane	ND	5.0	1.3	ug/kg	
78-93-3	2-Butanone (MEK)	ND	12	3.1	ug/kg	
75-15-0	Carbon disulfide	ND	12	0.41	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.0	1.8	ug/kg	
108-90-7	Chlorobenzene	ND	5.0	0.68	ug/kg	
75-00-3	Chloroethane	ND	12	3.1	ug/kg	
67-66-3	Chloroform	ND	5.0	1.3	ug/kg	
74-87-3	Chloromethane	ND	12	1.2	ug/kg	
124-48-1	Dibromochloromethane	ND	5.0	0.74	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.0	0.67	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.0	0.72	ug/kg	
75-35-4	1,1-Dichloroethene	ND	5.0	0.92	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	5.0	0.75	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	5.0	0.71	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.0	0.93	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	0.43	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	1.2	ug/kg	
100-41-4	Ethylbenzene	ND	5.0	0.60	ug/kg	
591-78-6	2-Hexanone	ND	12	3.1	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	12	1.2	ug/kg	
75-09-2	Methylene chloride	ND	5.0	2.9	ug/kg	
100-42-5	Styrene	ND	12	0.58	ug/kg	
79-34-5	1,1,1,2-Tetrachloroethane	ND	5.0	1.1	ug/kg	
127-18-4	Tetrachloroethene	ND	5.0	0.57	ug/kg	
108-88-3	Toluene	ND	12	2.1	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.0	0.78	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.0	1.8	ug/kg	
79-01-6	Trichloroethene	ND	5.0	0.53	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-7 8.5-9.5'	
Lab Sample ID: MC21383-9	Date Sampled: 05/29/13
Matrix: SO - Soil	Date Received: 06/01/13
Method: SW846 8260B	Percent Solids: 40.9
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl chloride	ND	5.0	0.68	ug/kg	
1330-20-7	Xylene (total)	ND	5.0	0.60	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	72%		70-130%
2037-26-5	Toluene-D8	78%		70-130%
460-00-4	4-Bromofluorobenzene	92%		70-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID:	SB-7 8.5-9.5'	Date Sampled:	05/29/13
Lab Sample ID:	MC21383-9	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	40.9
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F64933.D	1	06/11/13	KR	06/07/13	OP33526	MSF3017
Run #2							

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

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	610	27	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	1200	31	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	1200	35	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	1200	200	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	2400	300	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	1200	150	ug/kg	
95-48-7	2-Methylphenol	ND	1200	48	ug/kg	
	3&4-Methylphenol	ND	1200	59	ug/kg	
88-75-5	2-Nitrophenol	ND	1200	32	ug/kg	
100-02-7	4-Nitrophenol	ND	2400	230	ug/kg	
87-86-5	Pentachlorophenol	ND	1200	85	ug/kg	
108-95-2	Phenol	ND	610	34	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	1200	30	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	1200	30	ug/kg	
83-32-9	Acenaphthene	ND	240	32	ug/kg	
208-96-8	Acenaphthylene	ND	240	24	ug/kg	
120-12-7	Anthracene	ND	240	29	ug/kg	
56-55-3	Benzo(a)anthracene	ND	240	31	ug/kg	
50-32-8	Benzo(a)pyrene	ND	240	26	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	240	30	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	240	24	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	240	37	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	610	31	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	610	25	ug/kg	
91-58-7	2-Chloronaphthalene	ND	610	33	ug/kg	
106-47-8	4-Chloroaniline	ND	1200	30	ug/kg	
86-74-8	Carbazole	ND	240	29	ug/kg	
218-01-9	Chrysene	ND	240	30	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	610	28	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	610	37	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	610	43	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	610	37	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-7 8.5-9.5' Lab Sample ID: MC21383-9 Matrix: SO - Soil Method: SW846 8270C SW846 3546 Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 05/29/13 Date Received: 06/01/13 Percent Solids: 40.9
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ABN TCL List

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

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.9
4

Report of Analysis

Client Sample ID: SB-7 8.5-9.5' Lab Sample ID: MC21383-9 Matrix: SO - Soil Method: SW846 8082 SW846 3546 Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 05/29/13 Date Received: 06/01/13 Percent Solids: 40.9
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK25750.D	1	06/11/13	NK	06/07/13	OP33536	GBK888
Run #2							

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

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	78	36	ug/kg	
11104-28-2	Aroclor 1221	ND	78	47	ug/kg	
11141-16-5	Aroclor 1232	ND	78	37	ug/kg	
53469-21-9	Aroclor 1242	ND	78	39	ug/kg	
12672-29-6	Aroclor 1248	ND	78	35	ug/kg	
11097-69-1	Aroclor 1254	ND	78	57	ug/kg	
11096-82-5	Aroclor 1260	ND	78	40	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	110%		30-150%
877-09-8	Tetrachloro-m-xylene	106%		30-150%
2051-24-3	Decachlorobiphenyl	108%		30-150%
2051-24-3	Decachlorobiphenyl	110%		30-150%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.9
4

Report of Analysis

Client Sample ID: SB-7 8.5-9.5'	Date Sampled: 05/29/13
Lab Sample ID: MC21383-9	Date Received: 06/01/13
Matrix: SO - Soil	Percent Solids: 40.9
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	5610	20	3.5	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁶
Antimony	38.5	0.98	0.15	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁶
Arsenic	52.7	0.98	0.20	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁶
Barium	2100	25	0.36	mg/kg	5	06/11/13	06/13/13	EAL SW846 6010C ³	SW846 3050B ⁶
Beryllium	0.28 B	0.39	0.023	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁶
Cadmium	1.3	0.39	0.042	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁶
Calcium	22000	490	6.2	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁶
Chromium	23.3	0.98	0.093	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁶
Cobalt	17.8	4.9	0.046	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁶
Copper	107	2.5	0.54	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁶
Iron	260000	98	8.5	mg/kg	10	06/11/13	06/14/13	EAL SW846 6010C ⁴	SW846 3050B ⁶
Lead	2140	4.9	0.82	mg/kg	5	06/11/13	06/13/13	EAL SW846 6010C ³	SW846 3050B ⁶
Magnesium	4050	490	5.0	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁶
Manganese	1000	1.5	0.039	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁶
Mercury	0.11	0.076	0.022	mg/kg	1	06/05/13	06/06/13	SA SW846 7471B ¹	SW846 7471B ⁵
Nickel	26.3	3.9	0.043	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁶
Potassium	1000	490	8.4	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁶
Selenium ^a	3.4 U	9.8	3.4	mg/kg	10	06/11/13	06/14/13	EAL SW846 6010C ⁴	SW846 3050B ⁶
Silver	0.57	0.49	0.12	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁶
Sodium	440 B	490	3.3	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁶
Thallium	0.17 B	0.98	0.13	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁶
Vanadium	30.5	0.98	0.13	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁶
Zinc	2140	9.8	0.79	mg/kg	5	06/11/13	06/13/13	EAL SW846 6010C ³	SW846 3050B ⁶

(1) Instrument QC Batch: MA15703

(2) Instrument QC Batch: MA15733

(3) Instrument QC Batch: MA15744

(4) Instrument QC Batch: MA15751

(5) Prep QC Batch: MP21118

(6) Prep QC Batch: MP21149

(a) Elevated RL due to dilution required for matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	SB-7 13-14'	Date Sampled:	05/29/13
Lab Sample ID:	MC21383-10	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	60.4
Method:	SW846 8260B		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M56926.D	1	06/11/13	KD	n/a	n/a	MSM1951
Run #2							

Run #	Initial Weight	Final Volume
Run #1	6.71 g	5.0 ml
Run #2		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	12	1.6	ug/kg	
71-43-2	Benzene	ND	0.62	0.36	ug/kg	
75-27-4	Bromodichloromethane	ND	2.5	0.26	ug/kg	
75-25-2	Bromoform	ND	2.5	2.5	ug/kg	
74-83-9	Bromomethane	ND	2.5	0.64	ug/kg	
78-93-3	2-Butanone (MEK)	ND	6.2	1.5	ug/kg	
75-15-0	Carbon disulfide	1.1	6.2	0.20	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.5	0.90	ug/kg	
108-90-7	Chlorobenzene	ND	2.5	0.34	ug/kg	
75-00-3	Chloroethane	ND	6.2	1.6	ug/kg	
67-66-3	Chloroform	ND	2.5	0.64	ug/kg	
74-87-3	Chloromethane	ND	6.2	0.57	ug/kg	
124-48-1	Dibromochloromethane	ND	2.5	0.36	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.5	0.33	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.5	0.35	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.5	0.45	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.37	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.35	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.5	0.46	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.5	0.21	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.5	0.61	ug/kg	
100-41-4	Ethylbenzene	ND	2.5	0.30	ug/kg	
591-78-6	2-Hexanone	ND	6.2	1.5	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	6.2	0.62	ug/kg	
75-09-2	Methylene chloride	ND	2.5	1.4	ug/kg	
100-42-5	Styrene	ND	6.2	0.29	ug/kg	
79-34-5	1,1,1,2-Tetrachloroethane	ND	2.5	0.52	ug/kg	
127-18-4	Tetrachloroethene	ND	2.5	0.28	ug/kg	
108-88-3	Toluene	ND	6.2	1.0	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.39	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.5	0.91	ug/kg	
79-01-6	Trichloroethene	ND	2.5	0.26	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-7 13-14'	
Lab Sample ID: MC21383-10	Date Sampled: 05/29/13
Matrix: SO - Soil	Date Received: 06/01/13
Method: SW846 8260B	Percent Solids: 60.4
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl chloride	ND	2.5	0.34	ug/kg	
1330-20-7	Xylene (total)	ND	2.5	0.30	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	75%		70-130%
2037-26-5	Toluene-D8	76%		70-130%
460-00-4	4-Bromofluorobenzene	87%		70-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID:	SB-7 13-14'	Date Sampled:	05/29/13
Lab Sample ID:	MC21383-10	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	60.4
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F64934.D	1	06/11/13	KR	06/07/13	OP33526	MSF3017
Run #2							

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

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	410	18	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	820	21	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	820	24	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	820	130	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1600	200	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	820	100	ug/kg	
95-48-7	2-Methylphenol	ND	820	32	ug/kg	
	3&4-Methylphenol	ND	820	40	ug/kg	
88-75-5	2-Nitrophenol	ND	820	22	ug/kg	
100-02-7	4-Nitrophenol	ND	1600	150	ug/kg	
87-86-5	Pentachlorophenol	ND	820	57	ug/kg	
108-95-2	Phenol	ND	410	23	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	820	20	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	820	20	ug/kg	
83-32-9	Acenaphthene	ND	160	22	ug/kg	
208-96-8	Acenaphthylene	ND	160	16	ug/kg	
120-12-7	Anthracene	74.4	160	20	ug/kg	J
56-55-3	Benzo(a)anthracene	288	160	21	ug/kg	
50-32-8	Benzo(a)pyrene	241	160	18	ug/kg	
205-99-2	Benzo(b)fluoranthene	240	160	20	ug/kg	
191-24-2	Benzo(g,h,i)perylene	162	160	16	ug/kg	
207-08-9	Benzo(k)fluoranthene	166	160	25	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	410	21	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	410	17	ug/kg	
91-58-7	2-Chloronaphthalene	ND	410	22	ug/kg	
106-47-8	4-Chloroaniline	ND	820	20	ug/kg	
86-74-8	Carbazole	ND	160	19	ug/kg	
218-01-9	Chrysene	297	160	20	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	410	19	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	410	25	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	410	29	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	410	25	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-7 13-14'	Date Sampled:	05/29/13
Lab Sample ID:	MC21383-10	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	60.4
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	410	21	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	410	23	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	410	22	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	820	55	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	820	15	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	410	20	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	160	19	ug/kg	
132-64-9	Dibenzofuran	ND	160	23	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	410	43	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	410	13	ug/kg	
84-66-2	Diethyl phthalate	ND	410	20	ug/kg	
131-11-3	Dimethyl phthalate	ND	410	24	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	410	15	ug/kg	
206-44-0	Fluoranthene	528	160	22	ug/kg	
86-73-7	Fluorene	ND	160	22	ug/kg	
118-74-1	Hexachlorobenzene	ND	410	26	ug/kg	
87-68-3	Hexachlorobutadiene	ND	410	24	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	820	200	ug/kg	
67-72-1	Hexachloroethane	ND	410	20	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	138	160	18	ug/kg	J
78-59-1	Isophorone	ND	410	19	ug/kg	
91-57-6	2-Methylnaphthalene	ND	160	21	ug/kg	
88-74-4	2-Nitroaniline	ND	820	19	ug/kg	
99-09-2	3-Nitroaniline	ND	820	45	ug/kg	
100-01-6	4-Nitroaniline	ND	820	20	ug/kg	
91-20-3	Naphthalene	ND	160	26	ug/kg	
98-95-3	Nitrobenzene	ND	410	22	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	410	23	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	410	25	ug/kg	
85-01-8	Phenanthrene	323	160	22	ug/kg	
129-00-0	Pyrene	506	160	19	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	410	23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	67%		30-130%
4165-62-2	Phenol-d5	65%		30-130%
118-79-6	2,4,6-Tribromophenol	74%		30-130%
4165-60-0	Nitrobenzene-d5	68%		30-130%
321-60-8	2-Fluorobiphenyl	71%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-7 13-14' Lab Sample ID: MC21383-10 Matrix: SO - Soil Method: SW846 8270C SW846 3546 Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 05/29/13 Date Received: 06/01/13 Percent Solids: 60.4
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4.10
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ABN TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	79%		30-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID: SB-7 13-14' Lab Sample ID: MC21383-10 Matrix: SO - Soil Method: SW846 8082 SW846 3546 Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 05/29/13 Date Received: 06/01/13 Percent Solids: 60.4
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK25751.D	1	06/11/13	NK	06/07/13	OP33536	GBK888
Run #2							

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

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	55	25	ug/kg	
11104-28-2	Aroclor 1221	ND	55	33	ug/kg	
11141-16-5	Aroclor 1232	ND	55	26	ug/kg	
53469-21-9	Aroclor 1242	ND	55	27	ug/kg	
12672-29-6	Aroclor 1248	ND	55	24	ug/kg	
11097-69-1	Aroclor 1254	ND	55	40	ug/kg	
11096-82-5	Aroclor 1260	ND	55	28	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	102%		30-150%
877-09-8	Tetrachloro-m-xylene	96%		30-150%
2051-24-3	Decachlorobiphenyl	99%		30-150%
2051-24-3	Decachlorobiphenyl	110%		30-150%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID:	SB-7 13-14'	Date Sampled:	05/29/13
Lab Sample ID:	MC21383-10	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	60.4
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	4580	20	3.5	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Antimony	4.1	0.98	0.15	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Arsenic	22.2	0.98	0.20	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Barium	428	4.9	0.071	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Beryllium	0.29 B	0.39	0.023	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Cadmium	0.52	0.39	0.041	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Calcium	27500	490	6.2	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Chromium	32.8	0.98	0.093	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Cobalt	7.7	4.9	0.046	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Copper	121	2.4	0.54	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Iron	71000	20	1.7	mg/kg	2	06/11/13	06/13/13	EAL SW846 6010C ³	SW846 3050B ⁵
Lead	211	0.98	0.16	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Magnesium	8000	490	5.0	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Manganese	524	1.5	0.039	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Mercury	0.44	0.045	0.013	mg/kg	1	06/05/13	06/06/13	SA SW846 7471B ¹	SW846 7471B ⁴
Nickel	20.9	3.9	0.043	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Potassium	753	490	8.4	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Selenium ^a	0.68 U	2.0	0.68	mg/kg	2	06/11/13	06/13/13	EAL SW846 6010C ³	SW846 3050B ⁵
Silver	0.92	0.49	0.12	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Sodium	210 B	490	3.2	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Thallium	0.13 U	0.98	0.13	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Vanadium	16.9	0.98	0.13	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Zinc	327	2.0	0.16	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵

(1) Instrument QC Batch: MA15703

(2) Instrument QC Batch: MA15733

(3) Instrument QC Batch: MA15744

(4) Prep QC Batch: MP21118

(5) Prep QC Batch: MP21149

(a) Elevated RL due to dilution required for matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: SB-8 13-13.8'	Date Sampled: 05/29/13
Lab Sample ID: MC21383-11	Date Received: 06/01/13
Matrix: SO - Soil	Percent Solids: 75.1
Method: SW846 8260B	
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M56927.D	1	06/11/13	KD	n/a	n/a	MSM1951

Run #1	Initial Weight	Final Volume
Run #2	7.62 g	5.0 ml

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	8.7	1.1	ug/kg	
71-43-2	Benzene	1.0	0.44	0.26	ug/kg	
75-27-4	Bromodichloromethane	ND	1.7	0.18	ug/kg	
75-25-2	Bromoform	ND	1.7	1.7	ug/kg	
74-83-9	Bromomethane	ND	1.7	0.45	ug/kg	
78-93-3	2-Butanone (MEK)	ND	4.4	1.1	ug/kg	
75-15-0	Carbon disulfide	0.74	4.4	0.14	ug/kg	J
56-23-5	Carbon tetrachloride	ND	1.7	0.63	ug/kg	
108-90-7	Chlorobenzene	ND	1.7	0.24	ug/kg	
75-00-3	Chloroethane	ND	4.4	1.1	ug/kg	
67-66-3	Chloroform	ND	1.7	0.45	ug/kg	
74-87-3	Chloromethane	ND	4.4	0.41	ug/kg	
124-48-1	Dibromochloromethane	ND	1.7	0.26	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.7	0.24	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.7	0.25	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.7	0.32	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.7	0.26	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.7	0.25	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.7	0.33	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.7	0.15	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.7	0.43	ug/kg	
100-41-4	Ethylbenzene	ND	1.7	0.21	ug/kg	
591-78-6	2-Hexanone	ND	4.4	1.1	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.4	0.44	ug/kg	
75-09-2	Methylene chloride	ND	1.7	1.0	ug/kg	
100-42-5	Styrene	ND	4.4	0.20	ug/kg	
79-34-5	1,1,1,2-Tetrachloroethane	ND	1.7	0.37	ug/kg	
127-18-4	Tetrachloroethene	ND	1.7	0.20	ug/kg	
108-88-3	Toluene	0.83	4.4	0.74	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	1.7	0.28	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	1.7	0.64	ug/kg	
79-01-6	Trichloroethene	ND	1.7	0.18	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-8 13-13.8' Lab Sample ID: MC21383-11 Matrix: SO - Soil Method: SW846 8260B Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 05/29/13 Date Received: 06/01/13 Percent Solids: 75.1
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VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl chloride	ND	1.7	0.24	ug/kg	
1330-20-7	Xylene (total)	ND	1.7	0.21	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	75%		70-130%
2037-26-5	Toluene-D8	77%		70-130%
460-00-4	4-Bromofluorobenzene	80%		70-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.11
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Report of Analysis

Client Sample ID:	SB-8 13-13.8'	Date Sampled:	05/29/13
Lab Sample ID:	MC21383-11	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	75.1
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R31405.D	1	06/13/13	KR	06/07/13	OP33529	MSR1143
Run #2							

Run #	Initial Weight	Final Volume
Run #1	20.6 g	1.0 ml
Run #2		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	320	15	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	650	16	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	650	19	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	650	110	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1300	160	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	650	81	ug/kg	
95-48-7	2-Methylphenol	ND	650	26	ug/kg	
	3&4-Methylphenol	ND	650	31	ug/kg	
88-75-5	2-Nitrophenol	ND	650	17	ug/kg	
100-02-7	4-Nitrophenol	ND	1300	120	ug/kg	
87-86-5	Pentachlorophenol	ND	650	46	ug/kg	
108-95-2	Phenol	ND	320	18	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	650	16	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	650	16	ug/kg	
83-32-9	Acenaphthene	ND	130	17	ug/kg	
208-96-8	Acenaphthylene	ND	130	13	ug/kg	
120-12-7	Anthracene	30.6	130	16	ug/kg	J
56-55-3	Benzo(a)anthracene	153	130	17	ug/kg	
50-32-8	Benzo(a)pyrene	154	130	14	ug/kg	
205-99-2	Benzo(b)fluoranthene	121	130	16	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	95.4	130	13	ug/kg	J
207-08-9	Benzo(k)fluoranthene	144	130	20	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	320	16	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	320	13	ug/kg	
91-58-7	2-Chloronaphthalene	ND	320	18	ug/kg	
106-47-8	4-Chloroaniline	ND	650	16	ug/kg	
86-74-8	Carbazole	ND	130	15	ug/kg	
218-01-9	Chrysene	165	130	16	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	320	15	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	320	20	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	320	23	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	320	20	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-8 13-13.8'	Date Sampled:	05/29/13
Lab Sample ID:	MC21383-11	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	75.1
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	320	17	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	320	19	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	320	17	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	650	43	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	650	12	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	320	16	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	30.9	130	15	ug/kg	J
132-64-9	Dibenzofuran	ND	130	18	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	320	34	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	320	10	ug/kg	
84-66-2	Diethyl phthalate	ND	320	16	ug/kg	
131-11-3	Dimethyl phthalate	ND	320	19	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	385	320	12	ug/kg	
206-44-0	Fluoranthene	279	130	18	ug/kg	
86-73-7	Fluorene	ND	130	17	ug/kg	
118-74-1	Hexachlorobenzene	ND	320	20	ug/kg	
87-68-3	Hexachlorobutadiene	ND	320	19	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	650	160	ug/kg	
67-72-1	Hexachloroethane	ND	320	16	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	80.5	130	14	ug/kg	J
78-59-1	Isophorone	ND	320	15	ug/kg	
91-57-6	2-Methylnaphthalene	ND	130	16	ug/kg	
88-74-4	2-Nitroaniline	ND	650	15	ug/kg	
99-09-2	3-Nitroaniline	ND	650	35	ug/kg	
100-01-6	4-Nitroaniline	ND	650	16	ug/kg	
91-20-3	Naphthalene	ND	130	21	ug/kg	
98-95-3	Nitrobenzene	ND	320	17	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	320	19	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	320	20	ug/kg	
85-01-8	Phenanthrene	137	130	18	ug/kg	
129-00-0	Pyrene	216	130	15	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	320	18	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	56%		30-130%
4165-62-2	Phenol-d5	53%		30-130%
118-79-6	2,4,6-Tribromophenol	64%		30-130%
4165-60-0	Nitrobenzene-d5	53%		30-130%
321-60-8	2-Fluorobiphenyl	63%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-8 13-13.8'		Date Sampled: 05/29/13
Lab Sample ID: MC21383-11		Date Received: 06/01/13
Matrix: SO - Soil		Percent Solids: 75.1
Method: SW846 8270C SW846 3546		
Project: Auburn EPA Brownfield Phase II, Auburn, NY		

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ABN TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	71%		30-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID:	SB-8 13-13.8'	Date Sampled:	05/29/13
Lab Sample ID:	MC21383-11	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	75.1
Method:	SW846 8082 SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB48674.D	1	06/11/13	CZ	06/07/13	OP33538	GBB2904
Run #2							

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

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	44	20	ug/kg	
11104-28-2	Aroclor 1221	ND	44	26	ug/kg	
11141-16-5	Aroclor 1232	ND	44	21	ug/kg	
53469-21-9	Aroclor 1242	ND	44	22	ug/kg	
12672-29-6	Aroclor 1248	ND	44	19	ug/kg	
11097-69-1	Aroclor 1254	ND	44	32	ug/kg	
11096-82-5	Aroclor 1260	ND	44	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	80%		30-150%
877-09-8	Tetrachloro-m-xylene	81%		30-150%
2051-24-3	Decachlorobiphenyl	76%		30-150%
2051-24-3	Decachlorobiphenyl	78%		30-150%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-8 13-13.8'	Date Sampled: 05/29/13
Lab Sample ID: MC21383-11	Date Received: 06/01/13
Matrix: SO - Soil	Percent Solids: 75.1
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	4050	20	3.5	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Antimony	0.15 U	0.98	0.15	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Arsenic	6.8	0.98	0.20	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Barium	110	4.9	0.071	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Beryllium	0.28 B	0.39	0.023	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Cadmium	0.28 B	0.39	0.041	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Calcium	114000	4900	61	mg/kg	10	06/11/13	06/13/13	EAL SW846 6010C ³	SW846 3050B ⁵
Chromium	17.9	0.98	0.093	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Cobalt	5.1	4.9	0.046	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Copper	53.3	2.4	0.54	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Iron	15800	9.8	0.85	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Lead	65.9	0.98	0.16	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Magnesium	12000	490	5.0	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Manganese	363	1.5	0.039	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Mercury	0.23	0.036	0.011	mg/kg	1	06/05/13	06/06/13	SA SW846 7471B ¹	SW846 7471B ⁴
Nickel	23.5	3.9	0.043	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Potassium	813	490	8.4	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Selenium	0.34 U	0.98	0.34	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Silver	0.32 B	0.49	0.12	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Sodium	210 B	490	3.2	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Thallium	0.13 U	0.98	0.13	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Vanadium	12.4	0.98	0.13	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵
Zinc	101	2.0	0.16	mg/kg	1	06/11/13	06/11/13	EAL SW846 6010C ²	SW846 3050B ⁵

- (1) Instrument QC Batch: MA15703
- (2) Instrument QC Batch: MA15733
- (3) Instrument QC Batch: MA15744
- (4) Prep QC Batch: MP21118
- (5) Prep QC Batch: MP21149

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	SB-9 12-13.8'	Date Sampled:	05/29/13
Lab Sample ID:	MC21383-12	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	73.6
Method:	SW846 8260B		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M56928.D	1	06/11/13	KD	n/a	n/a	MSM1951
Run #2 ^a	M56948.D	1	06/12/13	KD	n/a	n/a	MSM1952

Run #	Initial Weight	Final Volume
Run #1	4.30 g	5.0 ml
Run #2	6.48 g	5.0 ml

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	16	2.0	ug/kg	
71-43-2	Benzene	1.8	0.79	0.47	ug/kg	
75-27-4	Bromodichloromethane	ND	3.2	0.33	ug/kg	
75-25-2	Bromoform	ND	3.2	3.2	ug/kg	
74-83-9	Bromomethane	ND	3.2	0.82	ug/kg	
78-93-3	2-Butanone (MEK)	ND	7.9	2.0	ug/kg	
75-15-0	Carbon disulfide	ND	7.9	0.26	ug/kg	
56-23-5	Carbon tetrachloride	ND	3.2	1.1	ug/kg	
108-90-7	Chlorobenzene	ND	3.2	0.43	ug/kg	
75-00-3	Chloroethane	ND	7.9	2.0	ug/kg	
67-66-3	Chloroform	ND	3.2	0.81	ug/kg	
74-87-3	Chloromethane	ND	7.9	0.73	ug/kg	
124-48-1	Dibromochloromethane	ND	3.2	0.47	ug/kg	
75-34-3	1,1-Dichloroethane	ND	3.2	0.43	ug/kg	
107-06-2	1,2-Dichloroethane	ND	3.2	0.45	ug/kg	
75-35-4	1,1-Dichloroethene	ND	3.2	0.58	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	3.2	0.48	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	3.2	0.45	ug/kg	
78-87-5	1,2-Dichloropropane	ND	3.2	0.59	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	3.2	0.27	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	3.2	0.78	ug/kg	
100-41-4	Ethylbenzene	ND	3.2	0.38	ug/kg	
591-78-6	2-Hexanone	ND	7.9	2.0	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	7.9	0.79	ug/kg	
75-09-2	Methylene chloride	ND	3.2	1.8	ug/kg	
100-42-5	Styrene	ND	7.9	0.37	ug/kg	
79-34-5	1,1,1,2-Tetrachloroethane	ND	3.2	0.67	ug/kg	
127-18-4	Tetrachloroethene	ND	3.2	0.36	ug/kg	
108-88-3	Toluene	ND	7.9	1.3	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	3.2	0.50	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	3.2	1.2	ug/kg	
79-01-6	Trichloroethene	ND	3.2	0.33	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-9 12-13.8' Lab Sample ID: MC21383-12 Matrix: SO - Soil Method: SW846 8260B Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 05/29/13 Date Received: 06/01/13 Percent Solids: 73.6
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VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl chloride	ND	3.2	0.43	ug/kg	
1330-20-7	Xylene (total)	ND	3.2	0.38	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	75%	84%	70-130%
2037-26-5	Toluene-D8	78%	69% ^b	70-130%
460-00-4	4-Bromofluorobenzene	78%	104%	70-130%

(a) Confirmation run.

(b) Outside control limits due to possible matrix interference. Confirmed by reanalysis.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.12
4

Report of Analysis

Client Sample ID:	SB-9 12-13.8'	Date Sampled:	05/29/13
Lab Sample ID:	MC21383-12	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	73.6
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R31406.D	1	06/13/13	KR	06/07/13	OP33529	MSR1143
Run #2							

Run #	Initial Weight	Final Volume
Run #1	20.6 g	1.0 ml
Run #2		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	330	15	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	660	17	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	660	19	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	660	110	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1300	170	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	660	83	ug/kg	
95-48-7	2-Methylphenol	ND	660	26	ug/kg	
	3&4-Methylphenol	ND	660	32	ug/kg	
88-75-5	2-Nitrophenol	ND	660	18	ug/kg	
100-02-7	4-Nitrophenol	ND	1300	120	ug/kg	
87-86-5	Pentachlorophenol	ND	660	47	ug/kg	
108-95-2	Phenol	ND	330	19	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	660	17	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	660	16	ug/kg	
83-32-9	Acenaphthene	217	130	18	ug/kg	
208-96-8	Acenaphthylene	46.2	130	13	ug/kg	J
120-12-7	Anthracene	461	130	16	ug/kg	
56-55-3	Benzo(a)anthracene	1180	130	17	ug/kg	
50-32-8	Benzo(a)pyrene	970	130	14	ug/kg	
205-99-2	Benzo(b)fluoranthene	912	130	17	ug/kg	
191-24-2	Benzo(g,h,i)perylene	599	130	13	ug/kg	
207-08-9	Benzo(k)fluoranthene	729	130	20	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	330	17	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	330	13	ug/kg	
91-58-7	2-Chloronaphthalene	ND	330	18	ug/kg	
106-47-8	4-Chloroaniline	ND	660	17	ug/kg	
86-74-8	Carbazole	195	130	16	ug/kg	
218-01-9	Chrysene	1300	130	16	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	330	16	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	330	20	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	330	24	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	330	20	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-9 12-13.8'	Date Sampled:	05/29/13
Lab Sample ID:	MC21383-12	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	73.6
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	330	17	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	330	19	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	330	18	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	660	44	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	660	12	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	330	17	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	221	130	16	ug/kg	
132-64-9	Dibenzofuran	133	130	18	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	330	35	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	330	10	ug/kg	
84-66-2	Diethyl phthalate	ND	330	17	ug/kg	
131-11-3	Dimethyl phthalate	ND	330	19	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	161	330	12	ug/kg	J
206-44-0	Fluoranthene	2600	130	18	ug/kg	
86-73-7	Fluorene	258	130	18	ug/kg	
118-74-1	Hexachlorobenzene	ND	330	21	ug/kg	
87-68-3	Hexachlorobutadiene	ND	330	19	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	660	170	ug/kg	
67-72-1	Hexachloroethane	ND	330	16	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	518	130	15	ug/kg	
78-59-1	Isophorone	ND	330	15	ug/kg	
91-57-6	2-Methylnaphthalene	60.1	130	17	ug/kg	J
88-74-4	2-Nitroaniline	ND	660	16	ug/kg	
99-09-2	3-Nitroaniline	ND	660	36	ug/kg	
100-01-6	4-Nitroaniline	ND	660	17	ug/kg	
91-20-3	Naphthalene	105	130	21	ug/kg	J
98-95-3	Nitrobenzene	ND	330	18	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	330	19	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	330	20	ug/kg	
85-01-8	Phenanthrene	2070	130	18	ug/kg	
129-00-0	Pyrene	1930	130	16	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	330	18	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	57%		30-130%
4165-62-2	Phenol-d5	55%		30-130%
118-79-6	2,4,6-Tribromophenol	67%		30-130%
4165-60-0	Nitrobenzene-d5	54%		30-130%
321-60-8	2-Fluorobiphenyl	66%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-9 12-13.8'		Date Sampled: 05/29/13
Lab Sample ID: MC21383-12		Date Received: 06/01/13
Matrix: SO - Soil		Percent Solids: 73.6
Method: SW846 8270C SW846 3546		
Project: Auburn EPA Brownfield Phase II, Auburn, NY		

4.12
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ABN TCL List

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

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID:	SB-9 12-13.8'	Date Sampled:	05/29/13
Lab Sample ID:	MC21383-12	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	73.6
Method:	SW846 8082 SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB48675.D	1	06/11/13	CZ	06/07/13	OP33538	GBB2904
Run #2							

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

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	44	20	ug/kg	
11104-28-2	Aroclor 1221	ND	44	26	ug/kg	
11141-16-5	Aroclor 1232	ND	44	21	ug/kg	
53469-21-9	Aroclor 1242	ND	44	22	ug/kg	
12672-29-6	Aroclor 1248	ND	44	19	ug/kg	
11097-69-1	Aroclor 1254	ND	44	32	ug/kg	
11096-82-5	Aroclor 1260	ND	44	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	54%		30-150%
877-09-8	Tetrachloro-m-xylene	58%		30-150%
2051-24-3	Decachlorobiphenyl	81%		30-150%
2051-24-3	Decachlorobiphenyl	64%		30-150%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-9 12-13.8'	Date Sampled: 05/29/13
Lab Sample ID: MC21383-12	Date Received: 06/01/13
Matrix: SO - Soil	Percent Solids: 73.6
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	19000	20	3.6	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Antimony	0.28 B	1.0	0.15	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Arsenic	7.7	1.0	0.21	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Barium	267	5.0	0.073	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Beryllium	0.71	0.40	0.024	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Cadmium	0.52	0.40	0.043	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Calcium	85100	2500	32	mg/kg	5	06/11/13	06/13/13	EAL SW846 6010C ³	SW846 3050B ⁵
Chromium	37.6	1.0	0.096	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Cobalt	7.4	5.0	0.047	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Copper	87.8	2.5	0.56	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Iron	19300	10	0.88	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Lead	232	1.0	0.17	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Magnesium	21700	500	5.2	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Manganese	370	1.5	0.040	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Mercury	0.84	0.040	0.012	mg/kg	1	06/05/13	06/06/13	SA SW846 7471B ¹	SW846 7471B ⁴
Nickel	17.6	4.0	0.044	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Potassium	4910	500	8.6	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Selenium	0.35 U	1.0	0.35	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Silver	0.47 B	0.50	0.13	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Sodium	413 B	500	3.3	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Thallium	0.13 U	1.0	0.13	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Vanadium	30.4	1.0	0.13	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Zinc	258	2.0	0.16	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵

(1) Instrument QC Batch: MA15703

(2) Instrument QC Batch: MA15735

(3) Instrument QC Batch: MA15744

(4) Prep QC Batch: MP21118

(5) Prep QC Batch: MP21154

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	EQUIP BLANK 1	Date Sampled:	05/30/13
Lab Sample ID:	MC21383-13	Date Received:	06/01/13
Matrix:	AQ - Equipment Blank	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	P69007.D	1	06/07/13	KD	n/a	n/a	MSP2262

Run #1	Purge Volume
Run #2	5.0 ml

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.33	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.6	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.59	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.62	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.48	ug/l	
75-00-3	Chloroethane	ND	2.0	0.84	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	1.4	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.45	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.29	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
100-42-5	Styrene	ND	5.0	0.49	ug/l	
79-34-5	1,1,1,2-Tetrachloroethane	ND	0.50	0.42	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: EQUIP BLANK 1	
Lab Sample ID: MC21383-13	Date Sampled: 05/30/13
Matrix: AQ - Equipment Blank	Date Received: 06/01/13
Method: SW846 8260B	Percent Solids: n/a
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		70-130%
2037-26-5	Toluene-D8	100%		70-130%
460-00-4	4-Bromofluorobenzene	101%		70-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID:	EQUIP BLANK 1	Date Sampled:	05/30/13
Lab Sample ID:	MC21383-13	Date Received:	06/01/13
Matrix:	AQ - Equipment Blank	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W12911A.D	1	06/07/13	KR	06/06/13	OP33514	MSW594
Run #2							

Run #	Initial Volume	Final Volume
Run #1	840 ml	1.0 ml
Run #2		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	6.0	0.46	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	12	0.59	ug/l	
120-83-2	2,4-Dichlorophenol	ND	12	0.39	ug/l	
105-67-9	2,4-Dimethylphenol	ND	12	1.4	ug/l	
51-28-5	2,4-Dinitrophenol	ND	24	3.0	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	12	1.4	ug/l	
95-48-7	2-Methylphenol	ND	12	1.5	ug/l	
	3&4-Methylphenol	ND	12	2.4	ug/l	
88-75-5	2-Nitrophenol	ND	12	0.60	ug/l	
100-02-7	4-Nitrophenol	ND	24	0.69	ug/l	
87-86-5	Pentachlorophenol	ND	12	1.5	ug/l	
108-95-2	Phenol	ND	6.0	0.61	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	12	0.68	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	12	0.38	ug/l	
83-32-9	Acenaphthene	ND	2.4	0.27	ug/l	
208-96-8	Acenaphthylene	ND	2.4	0.66	ug/l	
120-12-7	Anthracene	ND	2.4	0.25	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.4	0.25	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.4	0.25	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.4	0.27	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.4	0.30	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.4	0.32	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	6.0	0.24	ug/l	
85-68-7	Butyl benzyl phthalate	ND	6.0	1.0	ug/l	
91-58-7	2-Chloronaphthalene	ND	6.0	1.1	ug/l	
106-47-8	4-Chloroaniline	ND	12	0.30	ug/l	
86-74-8	Carbazole	ND	2.4	0.25	ug/l	
218-01-9	Chrysene	ND	2.4	0.24	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	6.0	0.25	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	6.0	0.28	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	6.0	0.16	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	6.0	0.24	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EQUIP BLANK 1	Date Sampled:	05/30/13
Lab Sample ID:	MC21383-13	Date Received:	06/01/13
Matrix:	AQ - Equipment Blank	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	6.0	0.31	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	6.0	0.30	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	6.0	0.29	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	12	0.80	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	12	0.76	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	6.0	0.60	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.4	0.25	ug/l	
132-64-9	Dibenzofuran	ND	2.4	0.19	ug/l	
84-74-2	Di-n-butyl phthalate	ND	6.0	0.46	ug/l	
117-84-0	Di-n-octyl phthalate	ND	6.0	0.52	ug/l	
84-66-2	Diethyl phthalate	ND	6.0	0.60	ug/l	
131-11-3	Dimethyl phthalate	ND	6.0	0.60	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	1.2	2.4	0.58	ug/l	J
206-44-0	Fluoranthene	ND	2.4	0.27	ug/l	
86-73-7	Fluorene	ND	2.4	0.28	ug/l	
118-74-1	Hexachlorobenzene	ND	6.0	0.35	ug/l	
87-68-3	Hexachlorobutadiene	ND	6.0	0.35	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	12	3.0	ug/l	
67-72-1	Hexachloroethane	ND	6.0	0.52	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.4	0.32	ug/l	
78-59-1	Isophorone	ND	6.0	0.24	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.4	0.47	ug/l	
88-74-4	2-Nitroaniline	ND	12	0.33	ug/l	
99-09-2	3-Nitroaniline	ND	12	0.60	ug/l	
100-01-6	4-Nitroaniline	ND	12	5.2	ug/l	
91-20-3	Naphthalene	ND	2.4	0.20	ug/l	
98-95-3	Nitrobenzene	ND	6.0	0.30	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	6.0	0.96	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	6.0	0.64	ug/l	
85-01-8	Phenanthrene	ND	2.4	0.25	ug/l	
129-00-0	Pyrene	ND	2.4	0.26	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	6.0	0.33	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	35%		15-110%
4165-62-2	Phenol-d5	24%		15-110%
118-79-6	2,4,6-Tribromophenol	65%		15-110%
4165-60-0	Nitrobenzene-d5	54%		30-130%
321-60-8	2-Fluorobiphenyl	49%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: EQUIP BLANK 1	Date Sampled: 05/30/13
Lab Sample ID: MC21383-13	Date Received: 06/01/13
Matrix: AQ - Equipment Blank	Percent Solids: n/a
Method: SW846 8270C SW846 3510C	
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

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ABN TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	66%		30-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID:	EQUIP BLANK 1	Date Sampled:	05/30/13
Lab Sample ID:	MC21383-13	Date Received:	06/01/13
Matrix:	AQ - Equipment Blank	Percent Solids:	n/a
Method:	SW846 8082 SW846 3510C		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ81387.D	1	06/14/13	CZ	06/05/13	OP33497	GYZ7178
Run #2							

Run #	Initial Volume	Final Volume
Run #1	780 ml	5.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.32	0.088	ug/l	
11104-28-2	Aroclor 1221	ND	0.32	0.093	ug/l	
11141-16-5	Aroclor 1232	ND	0.32	0.21	ug/l	
53469-21-9	Aroclor 1242	ND	0.32	0.13	ug/l	
12672-29-6	Aroclor 1248	ND	0.32	0.19	ug/l	
11097-69-1	Aroclor 1254	ND	0.32	0.093	ug/l	
11096-82-5	Aroclor 1260	ND	0.32	0.080	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	80%		30-150%
877-09-8	Tetrachloro-m-xylene	84%		30-150%
2051-24-3	Decachlorobiphenyl	43%		30-150%
2051-24-3	Decachlorobiphenyl	43%		30-150%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EQUIP BLANK 1	Date Sampled:	05/30/13
Lab Sample ID:	MC21383-13	Date Received:	06/01/13
Matrix:	AQ - Equipment Blank	Percent Solids:	n/a
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	48.5 B	200	40	ug/l	1	06/04/13	06/07/13	EAL SW846 6010C ²	SW846 3010A ³
Antimony	1.9 U	6.0	1.9	ug/l	1	06/04/13	06/07/13	EAL SW846 6010C ²	SW846 3010A ³
Arsenic	2.9 U	4.0	2.9	ug/l	1	06/04/13	06/07/13	EAL SW846 6010C ²	SW846 3010A ³
Barium	0.81 U	50	0.81	ug/l	1	06/04/13	06/07/13	EAL SW846 6010C ²	SW846 3010A ³
Beryllium	0.25 U	4.0	0.25	ug/l	1	06/04/13	06/07/13	EAL SW846 6010C ²	SW846 3010A ³
Cadmium	0.50 U	4.0	0.50	ug/l	1	06/04/13	06/07/13	EAL SW846 6010C ²	SW846 3010A ³
Calcium	796 B	5000	38	ug/l	1	06/04/13	06/07/13	EAL SW846 6010C ²	SW846 3010A ³
Chromium	1.4 U	10	1.4	ug/l	1	06/04/13	06/07/13	EAL SW846 6010C ²	SW846 3010A ³
Cobalt	0.40 U	50	0.40	ug/l	1	06/04/13	06/07/13	EAL SW846 6010C ²	SW846 3010A ³
Copper	7.0 U	25	7.0	ug/l	1	06/04/13	06/07/13	EAL SW846 6010C ²	SW846 3010A ³
Iron	169	100	20	ug/l	1	06/04/13	06/07/13	EAL SW846 6010C ²	SW846 3010A ³
Lead	1.7 U	5.0	1.7	ug/l	1	06/04/13	06/07/13	EAL SW846 6010C ²	SW846 3010A ³
Magnesium	124 B	5000	59	ug/l	1	06/04/13	06/07/13	EAL SW846 6010C ²	SW846 3010A ³
Manganese	2.8 B	15	0.81	ug/l	1	06/04/13	06/07/13	EAL SW846 6010C ²	SW846 3010A ³
Mercury	0.11 B	0.20	0.067	ug/l	1	06/06/13	06/07/13	SA SW846 7470A ¹	SW846 7470A ⁴
Nickel	0.57 U	40	0.57	ug/l	1	06/04/13	06/07/13	EAL SW846 6010C ²	SW846 3010A ³
Potassium	160 U	5000	160	ug/l	1	06/04/13	06/07/13	EAL SW846 6010C ²	SW846 3010A ³
Selenium	4.8 U	10	4.8	ug/l	1	06/04/13	06/07/13	EAL SW846 6010C ²	SW846 3010A ³
Silver	1.0 U	5.0	1.0	ug/l	1	06/04/13	06/07/13	EAL SW846 6010C ²	SW846 3010A ³
Sodium	495 B	5000	60	ug/l	1	06/04/13	06/07/13	EAL SW846 6010C ²	SW846 3010A ³
Thallium	1.9 U	5.0	1.9	ug/l	1	06/04/13	06/07/13	EAL SW846 6010C ²	SW846 3010A ³
Vanadium	2.8 U	10	2.8	ug/l	1	06/04/13	06/07/13	EAL SW846 6010C ²	SW846 3010A ³
Zinc	0.70 B	20	0.50	ug/l	1	06/04/13	06/07/13	EAL SW846 6010C ²	SW846 3010A ³

(1) Instrument QC Batch: MA15711

(2) Instrument QC Batch: MA15722

(3) Prep QC Batch: MP21106

(4) Prep QC Batch: MP21128

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: SB-10 11-12'	Date Sampled: 05/30/13
Lab Sample ID: MC21383-14	Date Received: 06/01/13
Matrix: SO - Soil	Percent Solids: 80.2
Method: SW846 8260B	
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M56952.D	1	06/12/13	KD	n/a	n/a	MSM1952

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

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	1.3	ug/kg	
71-43-2	Benzene	2.8	0.51	0.30	ug/kg	
75-27-4	Bromodichloromethane	ND	2.0	0.21	ug/kg	
75-25-2	Bromoform	ND	2.0	2.0	ug/kg	
74-83-9	Bromomethane	ND	2.0	0.53	ug/kg	
78-93-3	2-Butanone (MEK)	ND	5.1	1.3	ug/kg	
75-15-0	Carbon disulfide	0.55	5.1	0.17	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.0	0.74	ug/kg	
108-90-7	Chlorobenzene	ND	2.0	0.28	ug/kg	
75-00-3	Chloroethane	ND	5.1	1.3	ug/kg	
67-66-3	Chloroform	ND	2.0	0.52	ug/kg	
74-87-3	Chloromethane	ND	5.1	0.47	ug/kg	
124-48-1	Dibromochloromethane	ND	2.0	0.30	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.0	0.27	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.0	0.29	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.0	0.37	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.0	0.31	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.0	0.29	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.0	0.38	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.17	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.50	ug/kg	
100-41-4	Ethylbenzene	0.38	2.0	0.24	ug/kg	J
591-78-6	2-Hexanone	ND	5.1	1.3	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.1	0.51	ug/kg	
75-09-2	Methylene chloride	ND	2.0	1.2	ug/kg	
100-42-5	Styrene	ND	5.1	0.24	ug/kg	
79-34-5	1,1,1,2-Tetrachloroethane	ND	2.0	0.43	ug/kg	
127-18-4	Tetrachloroethene	ND	2.0	0.23	ug/kg	
108-88-3	Toluene	2.3	5.1	0.86	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.32	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.74	ug/kg	
79-01-6	Trichloroethene	ND	2.0	0.21	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-10 11-12' Lab Sample ID: MC21383-14 Matrix: SO - Soil Method: SW846 8260B Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 05/30/13 Date Received: 06/01/13 Percent Solids: 80.2
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VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl chloride	ND	2.0	0.28	ug/kg	
1330-20-7	Xylene (total)	1.0	2.0	0.24	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	74%		70-130%
2037-26-5	Toluene-D8	79%		70-130%
460-00-4	4-Bromofluorobenzene	79%		70-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

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Report of Analysis

Client Sample ID:	SB-10 11-12'	Date Sampled:	05/30/13
Lab Sample ID:	MC21383-14	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	80.2
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R31407.D	1	06/13/13	KR	06/07/13	OP33529	MSR1143
Run #2							

Run #	Initial Weight	Final Volume
Run #1	20.6 g	1.0 ml
Run #2		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	300	14	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	600	15	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	600	17	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	600	99	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1200	150	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	600	76	ug/kg	
95-48-7	2-Methylphenol	ND	600	24	ug/kg	
	3&4-Methylphenol	ND	600	29	ug/kg	
88-75-5	2-Nitrophenol	ND	600	16	ug/kg	
100-02-7	4-Nitrophenol	ND	1200	110	ug/kg	
87-86-5	Pentachlorophenol	ND	600	43	ug/kg	
108-95-2	Phenol	ND	300	17	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	600	15	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	600	15	ug/kg	
83-32-9	Acenaphthene	20.5	120	16	ug/kg	J
208-96-8	Acenaphthylene	ND	120	12	ug/kg	
120-12-7	Anthracene	42.1	120	15	ug/kg	J
56-55-3	Benzo(a)anthracene	96.8	120	16	ug/kg	J
50-32-8	Benzo(a)pyrene	83.9	120	13	ug/kg	J
205-99-2	Benzo(b)fluoranthene	72.1	120	15	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	46.3	120	12	ug/kg	J
207-08-9	Benzo(k)fluoranthene	70.0	120	18	ug/kg	J
101-55-3	4-Bromophenyl phenyl ether	ND	300	15	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	300	12	ug/kg	
91-58-7	2-Chloronaphthalene	ND	300	16	ug/kg	
106-47-8	4-Chloroaniline	ND	600	15	ug/kg	
86-74-8	Carbazole	21.5	120	14	ug/kg	J
218-01-9	Chrysene	85.0	120	15	ug/kg	J
111-91-1	bis(2-Chloroethoxy)methane	ND	300	14	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	300	18	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	300	22	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	300	19	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-10 11-12'	Date Sampled:	05/30/13
Lab Sample ID:	MC21383-14	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	80.2
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	300	16	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	300	17	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	300	16	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	600	40	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	600	11	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	300	15	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	19.1	120	14	ug/kg	J
132-64-9	Dibenzofuran	ND	120	17	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	300	32	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	300	9.4	ug/kg	
84-66-2	Diethyl phthalate	ND	300	15	ug/kg	
131-11-3	Dimethyl phthalate	ND	300	17	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	94.1	300	11	ug/kg	J
206-44-0	Fluoranthene	185	120	17	ug/kg	
86-73-7	Fluorene	19.5	120	16	ug/kg	J
118-74-1	Hexachlorobenzene	ND	300	19	ug/kg	
87-68-3	Hexachlorobutadiene	ND	300	18	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	600	150	ug/kg	
67-72-1	Hexachloroethane	ND	300	15	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	43.6	120	13	ug/kg	J
78-59-1	Isophorone	ND	300	14	ug/kg	
91-57-6	2-Methylnaphthalene	ND	120	15	ug/kg	
88-74-4	2-Nitroaniline	ND	600	14	ug/kg	
99-09-2	3-Nitroaniline	ND	600	33	ug/kg	
100-01-6	4-Nitroaniline	ND	600	15	ug/kg	
91-20-3	Naphthalene	20.5	120	19	ug/kg	J
98-95-3	Nitrobenzene	ND	300	16	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	300	17	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	300	18	ug/kg	
85-01-8	Phenanthrene	157	120	16	ug/kg	
129-00-0	Pyrene	124	120	14	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	300	17	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	65%		30-130%
4165-62-2	Phenol-d5	61%		30-130%
118-79-6	2,4,6-Tribromophenol	76%		30-130%
4165-60-0	Nitrobenzene-d5	60%		30-130%
321-60-8	2-Fluorobiphenyl	71%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-10 11-12' Lab Sample ID: MC21383-14 Matrix: SO - Soil Method: SW846 8270C SW846 3546 Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 05/30/13 Date Received: 06/01/13 Percent Solids: 80.2
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ABN TCL List

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

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID:	SB-10 11-12'	Date Sampled:	05/30/13
Lab Sample ID:	MC21383-14	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	80.2
Method:	SW846 8082 SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB48676.D	1	06/12/13	CZ	06/07/13	OP33538	GBB2904
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	41	19	ug/kg	
11104-28-2	Aroclor 1221	ND	41	24	ug/kg	
11141-16-5	Aroclor 1232	ND	41	19	ug/kg	
53469-21-9	Aroclor 1242	ND	41	20	ug/kg	
12672-29-6	Aroclor 1248	ND	41	18	ug/kg	
11097-69-1	Aroclor 1254	ND	41	30	ug/kg	
11096-82-5	Aroclor 1260	ND	41	21	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	83%		30-150%
877-09-8	Tetrachloro-m-xylene	87%		30-150%
2051-24-3	Decachlorobiphenyl	78%		30-150%
2051-24-3	Decachlorobiphenyl	80%		30-150%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-10 11-12' Lab Sample ID: MC21383-14 Matrix: SO - Soil Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 05/30/13 Date Received: 06/01/13 Percent Solids: 80.2
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Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	15000	20	3.6	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Antimony	0.15 U	1.0	0.15	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Arsenic	6.8	1.0	0.21	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Barium	115	5.0	0.072	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Beryllium	0.56	0.40	0.024	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Cadmium	0.22 B	0.40	0.042	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Calcium	73300	2500	31	mg/kg	5	06/11/13	06/13/13	EAL SW846 6010C ³	SW846 3050B ⁵
Chromium	12.8	1.0	0.095	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Cobalt	4.8 B	5.0	0.047	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Copper	19.1	2.5	0.55	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Iron	9950	10	0.87	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Lead	39.6	1.0	0.17	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Magnesium	16700	500	5.1	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Manganese	235	1.5	0.040	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Mercury	0.039	0.037	0.011	mg/kg	1	06/05/13	06/06/13	SA SW846 7471B ¹	SW846 7471B ⁴
Nickel	9.2	4.0	0.044	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Potassium	3160	500	8.5	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Selenium	0.35 U	1.0	0.35	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Silver	0.12 U	0.50	0.12	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Sodium	948	500	3.3	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Thallium	0.13 U	1.0	0.13	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Vanadium	28.1	1.0	0.13	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Zinc	75.1	2.0	0.16	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵

- (1) Instrument QC Batch: MA15703
- (2) Instrument QC Batch: MA15735
- (3) Instrument QC Batch: MA15744
- (4) Prep QC Batch: MP21118
- (5) Prep QC Batch: MP21154

RL = Reporting Limit
 MDL = Method Detection Limit

U = Indicates a result < MDL
 B = Indicates a result > = MDL but < RL

4.14
4

Report of Analysis

Client Sample ID: SB-11 7-8.3'		
Lab Sample ID: MC21383-15		Date Sampled: 05/30/13
Matrix: SO - Soil		Date Received: 06/01/13
Method: SW846 8260B		Percent Solids: 82.9
Project: Auburn EPA Brownfield Phase II, Auburn, NY		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M56953.D	1	06/12/13	KD	n/a	n/a	MSM1952

Run #1	Initial Weight	Final Volume
Run #2	3.57 g	5.0 ml

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	672	17	2.1	ug/kg	
71-43-2	Benzene	2.3	0.84	0.50	ug/kg	
75-27-4	Bromodichloromethane	ND	3.4	0.36	ug/kg	
75-25-2	Bromoform	ND	3.4	3.4	ug/kg	
74-83-9	Bromomethane	ND	3.4	0.88	ug/kg	
78-93-3	2-Butanone (MEK)	ND	8.4	2.1	ug/kg	
75-15-0	Carbon disulfide	1.3	8.4	0.28	ug/kg	J
56-23-5	Carbon tetrachloride	ND	3.4	1.2	ug/kg	
108-90-7	Chlorobenzene	ND	3.4	0.46	ug/kg	
75-00-3	Chloroethane	ND	8.4	2.1	ug/kg	
67-66-3	Chloroform	ND	3.4	0.87	ug/kg	
74-87-3	Chloromethane	ND	8.4	0.78	ug/kg	
124-48-1	Dibromochloromethane	ND	3.4	0.50	ug/kg	
75-34-3	1,1-Dichloroethane	ND	3.4	0.46	ug/kg	
107-06-2	1,2-Dichloroethane	ND	3.4	0.49	ug/kg	
75-35-4	1,1-Dichloroethene	ND	3.4	0.62	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	3.4	0.51	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	3.4	0.48	ug/kg	
78-87-5	1,2-Dichloropropane	ND	3.4	0.63	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	3.4	0.29	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	3.4	0.84	ug/kg	
100-41-4	Ethylbenzene	ND	3.4	0.41	ug/kg	
591-78-6	2-Hexanone	ND	8.4	2.1	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	8.4	0.84	ug/kg	
75-09-2	Methylene chloride	ND	3.4	2.0	ug/kg	
100-42-5	Styrene	ND	8.4	0.39	ug/kg	
79-34-5	1,1,1,2-Tetrachloroethane	ND	3.4	0.72	ug/kg	
127-18-4	Tetrachloroethene	ND	3.4	0.39	ug/kg	
108-88-3	Toluene	ND	8.4	1.4	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	3.4	0.53	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	3.4	1.2	ug/kg	
79-01-6	Trichloroethene	ND	3.4	0.36	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-11 7-8.3' Lab Sample ID: MC21383-15 Matrix: SO - Soil Method: SW846 8260B Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 05/30/13 Date Received: 06/01/13 Percent Solids: 82.9
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VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl chloride	ND	3.4	0.46	ug/kg	
1330-20-7	Xylene (total)	1.3	3.4	0.40	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	76%		70-130%
2037-26-5	Toluene-D8	78%		70-130%
460-00-4	4-Bromofluorobenzene	78%		70-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.15
4

Report of Analysis

Client Sample ID:	SB-11 7-8.3'	Date Sampled:	05/30/13
Lab Sample ID:	MC21383-15	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	82.9
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R31408.D	5	06/13/13	KR	06/07/13	OP33529	MSR1143
Run #2 ^a	F65196.D	5	06/26/13	KR	06/21/13	OP33716	MSF3025

Run #	Initial Weight	Final Volume
Run #1	20.9 g	1.0 ml
Run #2	20.5 g	1.0 ml

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1400	65	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2900	73	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2900	83	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2900	470	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5800	720	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2900	360	ug/kg	
95-48-7	2-Methylphenol	ND	2900	110	ug/kg	
	3&4-Methylphenol	ND	2900	140	ug/kg	
88-75-5	2-Nitrophenol	ND	2900	77	ug/kg	
100-02-7	4-Nitrophenol	ND	5800	540	ug/kg	
87-86-5	Pentachlorophenol	ND	2900	200	ug/kg	
108-95-2	Phenol	ND	1400	82	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2900	72	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2900	71	ug/kg	
83-32-9	Acenaphthene	2130	580	77	ug/kg	
208-96-8	Acenaphthylene	79.6	580	58	ug/kg	J
120-12-7	Anthracene	4880	580	69	ug/kg	
56-55-3	Benzo(a)anthracene	8030	580	74	ug/kg	
50-32-8	Benzo(a)pyrene	5740	580	62	ug/kg	
205-99-2	Benzo(b)fluoranthene	4410	580	72	ug/kg	
191-24-2	Benzo(g,h,i)perylene	2710	580	58	ug/kg	
207-08-9	Benzo(k)fluoranthene	5390	580	87	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	73	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	59	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	78	ug/kg	
106-47-8	4-Chloroaniline	ND	2900	72	ug/kg	
86-74-8	Carbazole	2980	580	68	ug/kg	
218-01-9	Chrysene	6690	580	72	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	68	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	88	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	100	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1400	88	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-11 7-8.3'	Date Sampled:	05/30/13
Lab Sample ID:	MC21383-15	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	82.9
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	75	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	83	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	77	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2900	190	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2900	52	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	72	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	1340	580	69	ug/kg	
132-64-9	Dibenzofuran	2110	580	80	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	150	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	45	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	72	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	83	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	141	1400	53	ug/kg	J
206-44-0	Fluoranthene	18800	580	79	ug/kg	
86-73-7	Fluorene	2650	580	77	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	90	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	83	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2900	720	ug/kg	
67-72-1	Hexachloroethane	ND	1400	69	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	2820	580	64	ug/kg	
78-59-1	Isophorone	ND	1400	66	ug/kg	
91-57-6	2-Methylnaphthalene	1360	580	73	ug/kg	
88-74-4	2-Nitroaniline	ND	2900	69	ug/kg	
99-09-2	3-Nitroaniline	ND	2900	160	ug/kg	
100-01-6	4-Nitroaniline	ND	2900	72	ug/kg	
91-20-3	Naphthalene	3810	580	92	ug/kg	
98-95-3	Nitrobenzene	ND	1400	78	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	82	ug/kg	
86-30-6	N-Nitrosodiphenylamine	462	1400	87	ug/kg	J
85-01-8	Phenanthrene	17300	580	78	ug/kg	
129-00-0	Pyrene	12000	580	68	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1400	80	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	30%	44%	30-130%
4165-62-2	Phenol-d5	51%	62%	30-130%
118-79-6	2,4,6-Tribromophenol	0% ^b	0% ^b	30-130%
4165-60-0	Nitrobenzene-d5	52%	63%	30-130%
321-60-8	2-Fluorobiphenyl	63%	74%	30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-11 7-8.3'		Date Sampled: 05/30/13
Lab Sample ID: MC21383-15		Date Received: 06/01/13
Matrix: SO - Soil		Percent Solids: 82.9
Method: SW846 8270C SW846 3546		
Project: Auburn EPA Brownfield Phase II, Auburn, NY		

4.15
4

ABN TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	69%	83%	30-130%

- (a) Confirmation run.
- (b) Outside control limits due to possible matrix interference. Confirmed by re-extraction/reanalysis.

ND = Not detected	MDL - Method Detection Limit	J = Indicates an estimated value
RL = Reporting Limit		B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range		N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-11 7-8.3' Lab Sample ID: MC21383-15 Matrix: SO - Soil Method: SW846 8082 SW846 3546 Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 05/30/13 Date Received: 06/01/13 Percent Solids: 82.9
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB48677.D	1	06/12/13	CZ	06/07/13	OP33538	GBB2904
Run #2							

Run #	Initial Weight	Final Volume
Run #1	16.0 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	38	17	ug/kg	
11104-28-2	Aroclor 1221	ND	38	23	ug/kg	
11141-16-5	Aroclor 1232	ND	38	18	ug/kg	
53469-21-9	Aroclor 1242	ND	38	19	ug/kg	
12672-29-6	Aroclor 1248	ND	38	17	ug/kg	
11097-69-1	Aroclor 1254	ND	38	28	ug/kg	
11096-82-5	Aroclor 1260	ND	38	19	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	53%		30-150%
877-09-8	Tetrachloro-m-xylene	55%		30-150%
2051-24-3	Decachlorobiphenyl	119%		30-150%
2051-24-3	Decachlorobiphenyl	80%		30-150%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.15
4

Report of Analysis

Client Sample ID: SB-11 7-8.3' Lab Sample ID: MC21383-15 Matrix: SO - Soil Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 05/30/13 Date Received: 06/01/13 Percent Solids: 82.9
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Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	9350	20	3.5	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Antimony	0.15 U	0.99	0.15	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Arsenic	7.8	0.99	0.21	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Barium	425	4.9	0.072	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Beryllium	0.51	0.40	0.024	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Cadmium	0.24 B	0.40	0.042	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Calcium	122000	4900	62	mg/kg	10	06/11/13	06/13/13	EAL SW846 6010C ³	SW846 3050B ⁵
Chromium	16.3	0.99	0.094	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Cobalt	5.1	4.9	0.046	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Copper	31.5	2.5	0.55	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Iron	10100	9.9	0.86	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Lead	60.7	0.99	0.17	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Magnesium	21500	490	5.1	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Manganese	415	1.5	0.040	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Mercury	0.048	0.038	0.011	mg/kg	1	06/05/13	06/06/13	SA SW846 7471B ¹	SW846 7471B ⁴
Nickel	10.4	4.0	0.043	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Potassium	1650	490	8.5	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Selenium	0.34 U	0.99	0.34	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Silver	0.12 U	0.49	0.12	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Sodium	796	490	3.3	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Thallium	0.13 U	0.99	0.13	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Vanadium	19.6	0.99	0.13	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Zinc	153	2.0	0.16	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵

- (1) Instrument QC Batch: MA15703
- (2) Instrument QC Batch: MA15735
- (3) Instrument QC Batch: MA15744
- (4) Prep QC Batch: MP21118
- (5) Prep QC Batch: MP21154

RL = Reporting Limit
 MDL = Method Detection Limit

U = Indicates a result < MDL
 B = Indicates a result > = MDL but < RL

4.15
4

Report of Analysis

Client Sample ID:	42WADS SB-1 1-2'	Date Sampled:	05/30/13
Lab Sample ID:	MC21383-16	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	94.7
Method:	SW846 8260B		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M56954.D	1	06/12/13	KD	n/a	n/a	MSM1952
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.58 g	5.0 ml
Run #2		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	27.7	9.5	1.2	ug/kg	
71-43-2	Benzene	ND	0.47	0.28	ug/kg	
75-27-4	Bromodichloromethane	ND	1.9	0.20	ug/kg	
75-25-2	Bromoform	ND	1.9	1.9	ug/kg	
74-83-9	Bromomethane	ND	1.9	0.49	ug/kg	
78-93-3	2-Butanone (MEK)	ND	4.7	1.2	ug/kg	
75-15-0	Carbon disulfide	0.31	4.7	0.16	ug/kg	J
56-23-5	Carbon tetrachloride	ND	1.9	0.69	ug/kg	
108-90-7	Chlorobenzene	ND	1.9	0.26	ug/kg	
75-00-3	Chloroethane	ND	4.7	1.2	ug/kg	
67-66-3	Chloroform	ND	1.9	0.49	ug/kg	
74-87-3	Chloromethane	ND	4.7	0.44	ug/kg	
124-48-1	Dibromochloromethane	ND	1.9	0.28	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.9	0.26	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.9	0.27	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.9	0.35	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.9	0.28	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.9	0.27	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.9	0.35	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.9	0.16	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.9	0.47	ug/kg	
100-41-4	Ethylbenzene	ND	1.9	0.23	ug/kg	
591-78-6	2-Hexanone	ND	4.7	1.2	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.7	0.47	ug/kg	
75-09-2	Methylene chloride	ND	1.9	1.1	ug/kg	
100-42-5	Styrene	ND	4.7	0.22	ug/kg	
79-34-5	1,1,1,2-Tetrachloroethane	ND	1.9	0.40	ug/kg	
127-18-4	Tetrachloroethene	ND	1.9	0.22	ug/kg	
108-88-3	Toluene	ND	4.7	0.80	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	1.9	0.30	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	1.9	0.69	ug/kg	
79-01-6	Trichloroethene	ND	1.9	0.20	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 42WADS SB-1 1-2' Lab Sample ID: MC21383-16 Matrix: SO - Soil Method: SW846 8260B Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 05/30/13 Date Received: 06/01/13 Percent Solids: 94.7
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VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl chloride	ND	1.9	0.26	ug/kg	
1330-20-7	Xylene (total)	ND	1.9	0.23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	74%		70-130%
2037-26-5	Toluene-D8	79%		70-130%
460-00-4	4-Bromofluorobenzene	77%		70-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.16
4

Report of Analysis

Client Sample ID:	42WADS SB-1 1-2'	Date Sampled:	05/30/13
Lab Sample ID:	MC21383-16	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	94.7
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R31409.D	1	06/13/13	KR	06/07/13	OP33529	MSR1143
Run #2							

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

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	260	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	520	13	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	520	15	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	520	85	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1000	130	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	520	66	ug/kg	
95-48-7	2-Methylphenol	ND	520	21	ug/kg	
	3&4-Methylphenol	ND	520	25	ug/kg	
88-75-5	2-Nitrophenol	ND	520	14	ug/kg	
100-02-7	4-Nitrophenol	ND	1000	98	ug/kg	
87-86-5	Pentachlorophenol	ND	520	37	ug/kg	
108-95-2	Phenol	ND	260	15	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	520	13	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	520	13	ug/kg	
83-32-9	Acenaphthene	ND	100	14	ug/kg	
208-96-8	Acenaphthylene	ND	100	10	ug/kg	
120-12-7	Anthracene	ND	100	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	100	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	100	11	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	100	13	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	100	10	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	100	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	260	13	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	260	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	260	14	ug/kg	
106-47-8	4-Chloroaniline	ND	520	13	ug/kg	
86-74-8	Carbazole	ND	100	12	ug/kg	
218-01-9	Chrysene	ND	100	13	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	260	12	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	260	16	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	260	19	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	260	16	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	42WADS SB-1 1-2'	Date Sampled:	05/30/13
Lab Sample ID:	MC21383-16	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	94.7
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	260	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	260	15	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	260	14	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	520	35	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	520	9.5	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	260	13	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	100	12	ug/kg	
132-64-9	Dibenzofuran	ND	100	14	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	260	28	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	260	8.2	ug/kg	
84-66-2	Diethyl phthalate	ND	260	13	ug/kg	
131-11-3	Dimethyl phthalate	ND	260	15	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	169	260	9.7	ug/kg	J
206-44-0	Fluoranthene	ND	100	14	ug/kg	
86-73-7	Fluorene	ND	100	14	ug/kg	
118-74-1	Hexachlorobenzene	ND	260	16	ug/kg	
87-68-3	Hexachlorobutadiene	ND	260	15	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	520	130	ug/kg	
67-72-1	Hexachloroethane	ND	260	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	100	12	ug/kg	
78-59-1	Isophorone	ND	260	12	ug/kg	
91-57-6	2-Methylnaphthalene	ND	100	13	ug/kg	
88-74-4	2-Nitroaniline	ND	520	12	ug/kg	
99-09-2	3-Nitroaniline	ND	520	29	ug/kg	
100-01-6	4-Nitroaniline	ND	520	13	ug/kg	
91-20-3	Naphthalene	ND	100	17	ug/kg	
98-95-3	Nitrobenzene	ND	260	14	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	260	15	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	260	16	ug/kg	
85-01-8	Phenanthrene	ND	100	14	ug/kg	
129-00-0	Pyrene	ND	100	12	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	260	14	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	74%		30-130%
4165-62-2	Phenol-d5	69%		30-130%
118-79-6	2,4,6-Tribromophenol	73%		30-130%
4165-60-0	Nitrobenzene-d5	69%		30-130%
321-60-8	2-Fluorobiphenyl	77%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 42WADS SB-1 1-2'		Date Sampled: 05/30/13
Lab Sample ID: MC21383-16		Date Received: 06/01/13
Matrix: SO - Soil		Percent Solids: 94.7
Method: SW846 8270C SW846 3546		
Project: Auburn EPA Brownfield Phase II, Auburn, NY		

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ABN TCL List

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

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID:	42WADS SB-1 1-2'	Date Sampled:	05/30/13
Lab Sample ID:	MC21383-16	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	94.7
Method:	SW846 8082 SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB48679.D	1	06/12/13	CZ	06/07/13	OP33538	GBB2904
Run #2							

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

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	34	15	ug/kg	
11104-28-2	Aroclor 1221	ND	34	20	ug/kg	
11141-16-5	Aroclor 1232	ND	34	16	ug/kg	
53469-21-9	Aroclor 1242	ND	34	17	ug/kg	
12672-29-6	Aroclor 1248	ND	34	15	ug/kg	
11097-69-1	Aroclor 1254	ND	34	25	ug/kg	
11096-82-5	Aroclor 1260	ND	34	17	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	81%		30-150%
877-09-8	Tetrachloro-m-xylene	84%		30-150%
2051-24-3	Decachlorobiphenyl	85%		30-150%
2051-24-3	Decachlorobiphenyl	86%		30-150%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	42WADS SB-1 1-2'	Date Sampled:	05/30/13
Lab Sample ID:	MC21383-16	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	94.7
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	586	20	3.6	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Antimony	0.15 U	1.0	0.15	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Arsenic	2.6	1.0	0.21	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Barium	45.0	5.0	0.072	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Beryllium	0.060 B	0.40	0.024	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Cadmium	0.042 U	0.40	0.042	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Calcium	208000	5000	63	mg/kg	10	06/11/13	06/13/13	EAL SW846 6010C ³	SW846 3050B ⁵
Chromium	3.4	1.0	0.095	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Cobalt	1.6 B	5.0	0.047	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Copper	3.7	2.5	0.55	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Iron	5950	10	0.87	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Lead	37.9	1.0	0.17	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Magnesium	99500	5000	51	mg/kg	10	06/11/13	06/13/13	EAL SW846 6010C ³	SW846 3050B ⁵
Manganese	192	1.5	0.040	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Mercury	0.035	0.032	0.0094	mg/kg	1	06/05/13	06/06/13	SA SW846 7471B ¹	SW846 7471B ⁴
Nickel	4.5	4.0	0.044	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Potassium	238 B	500	8.5	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Selenium	0.35 U	1.0	0.35	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Silver	0.12 U	0.50	0.12	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Sodium	164 B	500	3.3	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Thallium	0.13 U	1.0	0.13	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Vanadium	7.0	1.0	0.13	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Zinc	4.1	2.0	0.16	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵

- (1) Instrument QC Batch: MA15703
- (2) Instrument QC Batch: MA15735
- (3) Instrument QC Batch: MA15744
- (4) Prep QC Batch: MP21118
- (5) Prep QC Batch: MP21154

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: 42WADS SB-2 3-4.5' Lab Sample ID: MC21383-17 Matrix: SO - Soil Method: SW846 8260B Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 05/30/13 Date Received: 06/01/13 Percent Solids: 80.2
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M56955.D	1	06/12/13	KD	n/a	n/a	MSM1952
Run #2							

Run #	Initial Weight	Final Volume
Run #1	8.11 g	5.0 ml
Run #2		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	7.7	0.97	ug/kg	
71-43-2	Benzene	9.7	0.38	0.23	ug/kg	
75-27-4	Bromodichloromethane	ND	1.5	0.16	ug/kg	
75-25-2	Bromoform	ND	1.5	1.5	ug/kg	
74-83-9	Bromomethane	ND	1.5	0.40	ug/kg	
78-93-3	2-Butanone (MEK)	ND	3.8	0.96	ug/kg	
75-15-0	Carbon disulfide	0.89	3.8	0.13	ug/kg	J
56-23-5	Carbon tetrachloride	ND	1.5	0.56	ug/kg	
108-90-7	Chlorobenzene	ND	1.5	0.21	ug/kg	
75-00-3	Chloroethane	ND	3.8	0.97	ug/kg	
67-66-3	Chloroform	ND	1.5	0.40	ug/kg	
74-87-3	Chloromethane	ND	3.8	0.36	ug/kg	
124-48-1	Dibromochloromethane	ND	1.5	0.23	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.5	0.21	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.5	0.22	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.5	0.28	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.5	0.23	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.5	0.22	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.5	0.29	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.5	0.13	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.5	0.38	ug/kg	
100-41-4	Ethylbenzene	ND	1.5	0.19	ug/kg	
591-78-6	2-Hexanone	ND	3.8	0.96	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	3.8	0.38	ug/kg	
75-09-2	Methylene chloride	ND	1.5	0.89	ug/kg	
100-42-5	Styrene	ND	3.8	0.18	ug/kg	
79-34-5	1,1,1,2-Tetrachloroethane	ND	1.5	0.33	ug/kg	
127-18-4	Tetrachloroethene	ND	1.5	0.18	ug/kg	
108-88-3	Toluene	6.9	3.8	0.65	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	1.5	0.24	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.56	ug/kg	
79-01-6	Trichloroethene	ND	1.5	0.16	ug/kg	

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

4.17
4

Report of Analysis

Client Sample ID: 42WADS SB-2 3-4.5'	
Lab Sample ID: MC21383-17	Date Sampled: 05/30/13
Matrix: SO - Soil	Date Received: 06/01/13
Method: SW846 8260B	Percent Solids: 80.2
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl chloride	ND	1.5	0.21	ug/kg	
1330-20-7	Xylene (total)	2.4	1.5	0.18	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	74%		70-130%
2037-26-5	Toluene-D8	78%		70-130%
460-00-4	4-Bromofluorobenzene	82%		70-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID:	42WADS SB-2 3-4.5'	Date Sampled:	05/30/13
Lab Sample ID:	MC21383-17	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	80.2
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R31410.D	1	06/13/13	KR	06/07/13	OP33529	MSR1143
Run #2							

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

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	300	14	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	610	15	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	610	18	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	610	99	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1200	150	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	610	76	ug/kg	
95-48-7	2-Methylphenol	ND	610	24	ug/kg	
	3&4-Methylphenol	ND	610	30	ug/kg	
88-75-5	2-Nitrophenol	ND	610	16	ug/kg	
100-02-7	4-Nitrophenol	ND	1200	110	ug/kg	
87-86-5	Pentachlorophenol	ND	610	43	ug/kg	
108-95-2	Phenol	ND	300	17	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	610	15	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	610	15	ug/kg	
83-32-9	Acenaphthene	ND	120	16	ug/kg	
208-96-8	Acenaphthylene	32.0	120	12	ug/kg	J
120-12-7	Anthracene	66.9	120	15	ug/kg	J
56-55-3	Benzo(a)anthracene	268	120	16	ug/kg	
50-32-8	Benzo(a)pyrene	286	120	13	ug/kg	
205-99-2	Benzo(b)fluoranthene	270	120	15	ug/kg	
191-24-2	Benzo(g,h,i)perylene	208	120	12	ug/kg	
207-08-9	Benzo(k)fluoranthene	250	120	18	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	300	15	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	300	12	ug/kg	
91-58-7	2-Chloronaphthalene	ND	300	16	ug/kg	
106-47-8	4-Chloroaniline	ND	610	15	ug/kg	
86-74-8	Carbazole	48.1	120	14	ug/kg	J
218-01-9	Chrysene	340	120	15	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	300	14	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	300	18	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	300	22	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	300	19	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	42WADS SB-2 3-4.5'	Date Sampled:	05/30/13
Lab Sample ID:	MC21383-17	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	80.2
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	300	16	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	300	17	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	300	16	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	610	41	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	610	11	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	300	15	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	74.5	120	14	ug/kg	J
132-64-9	Dibenzofuran	18.2	120	17	ug/kg	J
84-74-2	Di-n-butyl phthalate	ND	300	32	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	300	9.5	ug/kg	
84-66-2	Diethyl phthalate	ND	300	15	ug/kg	
131-11-3	Dimethyl phthalate	ND	300	18	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	136	300	11	ug/kg	J
206-44-0	Fluoranthene	658	120	17	ug/kg	
86-73-7	Fluorene	17.4	120	16	ug/kg	J
118-74-1	Hexachlorobenzene	ND	300	19	ug/kg	
87-68-3	Hexachlorobutadiene	ND	300	18	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	610	150	ug/kg	
67-72-1	Hexachloroethane	ND	300	15	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	180	120	13	ug/kg	
78-59-1	Isophorone	ND	300	14	ug/kg	
91-57-6	2-Methylnaphthalene	19.9	120	15	ug/kg	J
88-74-4	2-Nitroaniline	ND	610	14	ug/kg	
99-09-2	3-Nitroaniline	ND	610	33	ug/kg	
100-01-6	4-Nitroaniline	ND	610	15	ug/kg	
91-20-3	Naphthalene	36.2	120	19	ug/kg	J
98-95-3	Nitrobenzene	ND	300	16	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	300	17	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	300	18	ug/kg	
85-01-8	Phenanthrene	361	120	16	ug/kg	
129-00-0	Pyrene	494	120	14	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	300	17	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	69%		30-130%
4165-62-2	Phenol-d5	65%		30-130%
118-79-6	2,4,6-Tribromophenol	80%		30-130%
4165-60-0	Nitrobenzene-d5	67%		30-130%
321-60-8	2-Fluorobiphenyl	74%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 42WADS SB-2 3-4.5'	Date Sampled: 05/30/13
Lab Sample ID: MC21383-17	Date Received: 06/01/13
Matrix: SO - Soil	Percent Solids: 80.2
Method: SW846 8270C SW846 3546	
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

4.17
4

ABN TCL List

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

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID:	42WADS SB-2 3-4.5'	Date Sampled:	05/30/13
Lab Sample ID:	MC21383-17	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	80.2
Method:	SW846 8082 SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB48680.D	1	06/12/13	CZ	06/07/13	OP33538	GBB2904
Run #2							

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

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	40	18	ug/kg	
11104-28-2	Aroclor 1221	ND	40	24	ug/kg	
11141-16-5	Aroclor 1232	ND	40	19	ug/kg	
53469-21-9	Aroclor 1242	ND	40	20	ug/kg	
12672-29-6	Aroclor 1248	ND	40	18	ug/kg	
11097-69-1	Aroclor 1254	ND	40	29	ug/kg	
11096-82-5	Aroclor 1260	ND	40	20	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	79%		30-150%
877-09-8	Tetrachloro-m-xylene	84%		30-150%
2051-24-3	Decachlorobiphenyl	90%		30-150%
2051-24-3	Decachlorobiphenyl	93%		30-150%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 42WADS SB-2 3-4.5'	Date Sampled: 05/30/13
Lab Sample ID: MC21383-17	Date Received: 06/01/13
Matrix: SO - Soil	Percent Solids: 80.2
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	6880	20	3.5	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Antimony	0.35 B	0.98	0.15	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Arsenic	6.3	0.98	0.20	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Barium	76.1	4.9	0.071	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Beryllium	0.37 B	0.39	0.023	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Cadmium	0.24 B	0.39	0.042	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Calcium	81400	2500	31	mg/kg	5	06/11/13	06/13/13	EAL SW846 6010C ³	SW846 3050B ⁵
Chromium	12.3	0.98	0.093	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Cobalt	5.6	4.9	0.046	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Copper	33.8	2.5	0.54	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Iron	31400	9.8	0.85	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Lead	170	0.98	0.16	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Magnesium	34700	490	5.0	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Manganese	369	1.5	0.039	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Mercury	1.1	0.038	0.011	mg/kg	1	06/05/13	06/06/13	SA SW846 7471B ¹	SW846 7471B ⁴
Nickel	11.2	3.9	0.043	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Potassium	619	490	8.4	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Selenium	0.34 U	0.98	0.34	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Silver	0.12 U	0.49	0.12	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Sodium	166 B	490	3.2	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Thallium	0.13 U	0.98	0.13	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Vanadium	16.2	0.98	0.13	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Zinc	67.8	2.0	0.16	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵

- (1) Instrument QC Batch: MA15703
- (2) Instrument QC Batch: MA15735
- (3) Instrument QC Batch: MA15744
- (4) Prep QC Batch: MP21118
- (5) Prep QC Batch: MP21154

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	42WADS SB-3 3.5-4.6'	Date Sampled:	05/31/13
Lab Sample ID:	MC21383-18	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	75.5
Method:	SW846 8260B		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M56981.D	1	06/13/13	KD	n/a	n/a	MSM1953
Run #2							

Run #	Initial Weight	Final Volume
Run #1	6.52 g	5.0 ml
Run #2		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	1.3	ug/kg	
71-43-2	Benzene	0.69	0.51	0.30	ug/kg	
75-27-4	Bromodichloromethane	ND	2.0	0.21	ug/kg	
75-25-2	Bromoform	ND	2.0	2.0	ug/kg	
74-83-9	Bromomethane	ND	2.0	0.53	ug/kg	
78-93-3	2-Butanone (MEK)	ND	5.1	1.3	ug/kg	
75-15-0	Carbon disulfide	0.63	5.1	0.17	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.0	0.74	ug/kg	
108-90-7	Chlorobenzene	ND	2.0	0.28	ug/kg	
75-00-3	Chloroethane	ND	5.1	1.3	ug/kg	
67-66-3	Chloroform	ND	2.0	0.52	ug/kg	
74-87-3	Chloromethane	ND	5.1	0.47	ug/kg	
124-48-1	Dibromochloromethane	ND	2.0	0.30	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.0	0.27	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.0	0.29	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.0	0.37	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.0	0.31	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.0	0.29	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.0	0.38	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.17	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.50	ug/kg	
100-41-4	Ethylbenzene	ND	2.0	0.25	ug/kg	
591-78-6	2-Hexanone	ND	5.1	1.3	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.1	0.51	ug/kg	
75-09-2	Methylene chloride	ND	2.0	1.2	ug/kg	
100-42-5	Styrene	ND	5.1	0.24	ug/kg	
79-34-5	1,1,1,2-Tetrachloroethane	ND	2.0	0.43	ug/kg	
127-18-4	Tetrachloroethene	ND	2.0	0.23	ug/kg	
108-88-3	Toluene	ND	5.1	0.86	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.32	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.75	ug/kg	
79-01-6	Trichloroethene	ND	2.0	0.21	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 42WADS SB-3 3.5-4.6'	
Lab Sample ID: MC21383-18	Date Sampled: 05/31/13
Matrix: SO - Soil	Date Received: 06/01/13
Method: SW846 8260B	Percent Solids: 75.5
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl chloride	ND	2.0	0.28	ug/kg	
1330-20-7	Xylene (total)	ND	2.0	0.24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	77%		70-130%
2037-26-5	Toluene-D8	78%		70-130%
460-00-4	4-Bromofluorobenzene	85%		70-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID:	42WADS SB-3 3.5-4.6'	Date Sampled:	05/31/13
Lab Sample ID:	MC21383-18	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	75.5
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R31411.D	1	06/13/13	KR	06/07/13	OP33529	MSR1143
Run #2							

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

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	330	15	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	660	17	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	660	19	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	660	110	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1300	160	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	660	82	ug/kg	
95-48-7	2-Methylphenol	ND	660	26	ug/kg	
	3&4-Methylphenol	ND	660	32	ug/kg	
88-75-5	2-Nitrophenol	ND	660	18	ug/kg	
100-02-7	4-Nitrophenol	ND	1300	120	ug/kg	
87-86-5	Pentachlorophenol	ND	660	46	ug/kg	
108-95-2	Phenol	ND	330	19	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	660	16	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	660	16	ug/kg	
83-32-9	Acenaphthene	ND	130	18	ug/kg	
208-96-8	Acenaphthylene	ND	130	13	ug/kg	
120-12-7	Anthracene	ND	130	16	ug/kg	
56-55-3	Benzo(a)anthracene	ND	130	17	ug/kg	
50-32-8	Benzo(a)pyrene	ND	130	14	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	130	16	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	130	13	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	130	20	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	330	17	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	330	13	ug/kg	
91-58-7	2-Chloronaphthalene	ND	330	18	ug/kg	
106-47-8	4-Chloroaniline	ND	660	16	ug/kg	
86-74-8	Carbazole	ND	130	16	ug/kg	
218-01-9	Chrysene	ND	130	16	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	330	15	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	330	20	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	330	24	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	330	20	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	42WADS SB-3 3.5-4.6'	Date Sampled:	05/31/13
Lab Sample ID:	MC21383-18	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	75.5
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	330	17	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	330	19	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	330	18	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	660	44	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	660	12	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	330	16	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	130	16	ug/kg	
132-64-9	Dibenzofuran	ND	130	18	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	330	35	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	330	10	ug/kg	
84-66-2	Diethyl phthalate	ND	330	16	ug/kg	
131-11-3	Dimethyl phthalate	ND	330	19	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	71.8	330	12	ug/kg	J
206-44-0	Fluoranthene	22.1	130	18	ug/kg	J
86-73-7	Fluorene	ND	130	18	ug/kg	
118-74-1	Hexachlorobenzene	ND	330	21	ug/kg	
87-68-3	Hexachlorobutadiene	ND	330	19	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	660	160	ug/kg	
67-72-1	Hexachloroethane	ND	330	16	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	130	15	ug/kg	
78-59-1	Isophorone	ND	330	15	ug/kg	
91-57-6	2-Methylnaphthalene	ND	130	17	ug/kg	
88-74-4	2-Nitroaniline	ND	660	16	ug/kg	
99-09-2	3-Nitroaniline	ND	660	36	ug/kg	
100-01-6	4-Nitroaniline	ND	660	16	ug/kg	
91-20-3	Naphthalene	ND	130	21	ug/kg	
98-95-3	Nitrobenzene	ND	330	18	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	330	19	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	330	20	ug/kg	
85-01-8	Phenanthrene	ND	130	18	ug/kg	
129-00-0	Pyrene	16.8	130	15	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	330	18	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	75%		30-130%
4165-62-2	Phenol-d5	72%		30-130%
118-79-6	2,4,6-Tribromophenol	76%		30-130%
4165-60-0	Nitrobenzene-d5	72%		30-130%
321-60-8	2-Fluorobiphenyl	81%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 42WADS SB-3 3.5-4.6' Lab Sample ID: MC21383-18 Matrix: SO - Soil Method: SW846 8270C SW846 3546 Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 05/31/13 Date Received: 06/01/13 Percent Solids: 75.5
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ABN TCL List

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

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.18
4

Report of Analysis

Client Sample ID: 42WADS SB-3 3.5-4.6'	Date Sampled: 05/31/13
Lab Sample ID: MC21383-18	Date Received: 06/01/13
Matrix: SO - Soil	Percent Solids: 75.5
Method: SW846 8082 SW846 3546	
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB48681.D	1	06/12/13	CZ	06/07/13	OP33538	GBB2904
Run #2							

Run #	Initial Weight	Final Volume
Run #1	16.0 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	41	19	ug/kg	
11104-28-2	Aroclor 1221	ND	41	25	ug/kg	
11141-16-5	Aroclor 1232	ND	41	20	ug/kg	
53469-21-9	Aroclor 1242	ND	41	21	ug/kg	
12672-29-6	Aroclor 1248	ND	41	18	ug/kg	
11097-69-1	Aroclor 1254	ND	41	30	ug/kg	
11096-82-5	Aroclor 1260	ND	41	21	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	85%		30-150%
877-09-8	Tetrachloro-m-xylene	88%		30-150%
2051-24-3	Decachlorobiphenyl	84%		30-150%
2051-24-3	Decachlorobiphenyl	87%		30-150%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 42WADS SB-3 3.5-4.6'	Date Sampled: 05/31/13
Lab Sample ID: MC21383-18	Date Received: 06/01/13
Matrix: SO - Soil	Percent Solids: 75.5
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	10900	19	3.5	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁴
Antimony	0.15 U	0.97	0.15	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁴
Arsenic	6.9	0.97	0.20	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁴
Barium	75.8	4.9	0.071	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁴
Beryllium	0.54	0.39	0.023	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁴
Cadmium	0.19 B	0.39	0.041	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁴
Calcium	21700	490	6.1	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁴
Chromium	14.5	0.97	0.093	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁴
Cobalt	10.1	4.9	0.046	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁴
Copper	26.0	2.4	0.54	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁴
Iron	18300	9.7	0.85	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁴
Lead	45.9	0.97	0.16	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁴
Magnesium	10900	490	5.0	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁴
Manganese	442	1.5	0.039	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁴
Mercury	0.19	0.035	0.010	mg/kg	1	06/05/13	06/06/13	SA SW846 7471B ¹	SW846 7471B ³
Nickel	23.4	3.9	0.043	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁴
Potassium	1610	490	8.3	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁴
Selenium	0.34 U	0.97	0.34	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁴
Silver	0.12 U	0.49	0.12	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁴
Sodium	388 B	490	3.2	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁴
Thallium	0.13 U	0.97	0.13	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁴
Vanadium	18.7	0.97	0.13	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁴
Zinc	50.2	1.9	0.16	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁴

(1) Instrument QC Batch: MA15703

(2) Instrument QC Batch: MA15735

(3) Prep QC Batch: MP21118

(4) Prep QC Batch: MP21154

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	42WADS SB-4 1-2'	Date Sampled:	05/31/13
Lab Sample ID:	MC21383-19	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	91.3
Method:	SW846 8260B		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M56982.D	1	06/13/13	KD	n/a	n/a	MSM1953
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.72 g	5.0 ml
Run #2		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	9.6	1.2	ug/kg	
71-43-2	Benzene	ND	0.48	0.28	ug/kg	
75-27-4	Bromodichloromethane	ND	1.9	0.20	ug/kg	
75-25-2	Bromoform	ND	1.9	1.9	ug/kg	
74-83-9	Bromomethane	ND	1.9	0.50	ug/kg	
78-93-3	2-Butanone (MEK)	ND	4.8	1.2	ug/kg	
75-15-0	Carbon disulfide	ND	4.8	0.16	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.9	0.70	ug/kg	
108-90-7	Chlorobenzene	ND	1.9	0.26	ug/kg	
75-00-3	Chloroethane	ND	4.8	1.2	ug/kg	
67-66-3	Chloroform	ND	1.9	0.49	ug/kg	
74-87-3	Chloromethane	ND	4.8	0.44	ug/kg	
124-48-1	Dibromochloromethane	ND	1.9	0.28	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.9	0.26	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.9	0.28	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.9	0.35	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.9	0.29	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.9	0.27	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.9	0.36	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.9	0.16	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.9	0.48	ug/kg	
100-41-4	Ethylbenzene	ND	1.9	0.23	ug/kg	
591-78-6	2-Hexanone	ND	4.8	1.2	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.8	0.48	ug/kg	
75-09-2	Methylene chloride	ND	1.9	1.1	ug/kg	
100-42-5	Styrene	ND	4.8	0.22	ug/kg	
79-34-5	1,1,1,2-Tetrachloroethane	ND	1.9	0.41	ug/kg	
127-18-4	Tetrachloroethene	1.3	1.9	0.22	ug/kg	J
108-88-3	Toluene	ND	4.8	0.81	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	1.9	0.30	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	1.9	0.70	ug/kg	
79-01-6	Trichloroethene	ND	1.9	0.20	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 42WADS SB-4 1-2'	
Lab Sample ID: MC21383-19	Date Sampled: 05/31/13
Matrix: SO - Soil	Date Received: 06/01/13
Method: SW846 8260B	Percent Solids: 91.3
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl chloride	ND	1.9	0.26	ug/kg	
1330-20-7	Xylene (total)	ND	1.9	0.23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	76%		70-130%
2037-26-5	Toluene-D8	77%		70-130%
460-00-4	4-Bromofluorobenzene	88%		70-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID:	42WADS SB-4 1-2'	Date Sampled:	05/31/13
Lab Sample ID:	MC21383-19	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	91.3
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	R31412.D	5	06/13/13	KR	06/07/13	OP33529	MSR1143
Run #2							

Run #	Initial Weight	Final Volume
Run #1	20.6 g	1.0 ml
Run #2		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1300	60	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2700	67	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2700	77	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2700	430	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5300	660	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2700	330	ug/kg	
95-48-7	2-Methylphenol	ND	2700	110	ug/kg	
	3&4-Methylphenol	ND	2700	130	ug/kg	
88-75-5	2-Nitrophenol	ND	2700	71	ug/kg	
100-02-7	4-Nitrophenol	ND	5300	500	ug/kg	
87-86-5	Pentachlorophenol	ND	2700	190	ug/kg	
108-95-2	Phenol	ND	1300	75	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2700	66	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2700	65	ug/kg	
83-32-9	Acenaphthene	ND	530	71	ug/kg	
208-96-8	Acenaphthylene	ND	530	53	ug/kg	
120-12-7	Anthracene	ND	530	64	ug/kg	
56-55-3	Benzo(a)anthracene	185	530	68	ug/kg	J
50-32-8	Benzo(a)pyrene	216	530	57	ug/kg	J
205-99-2	Benzo(b)fluoranthene	200	530	66	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	151	530	53	ug/kg	J
207-08-9	Benzo(k)fluoranthene	191	530	80	ug/kg	J
101-55-3	4-Bromophenyl phenyl ether	ND	1300	67	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1300	54	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1300	72	ug/kg	
106-47-8	4-Chloroaniline	ND	2700	66	ug/kg	
86-74-8	Carbazole	ND	530	63	ug/kg	
218-01-9	Chrysene	233	530	66	ug/kg	J
111-91-1	bis(2-Chloroethoxy)methane	ND	1300	62	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1300	81	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1300	95	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1300	81	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	42WADS SB-4 1-2'	Date Sampled:	05/31/13
Lab Sample ID:	MC21383-19	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	91.3
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1300	69	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1300	76	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1300	71	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2700	180	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2700	48	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1300	66	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	530	63	ug/kg	
132-64-9	Dibenzofuran	ND	530	73	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1300	140	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1300	41	ug/kg	
84-66-2	Diethyl phthalate	ND	1300	66	ug/kg	
131-11-3	Dimethyl phthalate	ND	1300	77	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1300	49	ug/kg	
206-44-0	Fluoranthene	257	530	73	ug/kg	J
86-73-7	Fluorene	ND	530	71	ug/kg	
118-74-1	Hexachlorobenzene	ND	1300	83	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1300	77	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2700	660	ug/kg	
67-72-1	Hexachloroethane	ND	1300	64	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	130	530	59	ug/kg	J
78-59-1	Isophorone	ND	1300	61	ug/kg	
91-57-6	2-Methylnaphthalene	217	530	67	ug/kg	J
88-74-4	2-Nitroaniline	ND	2700	63	ug/kg	
99-09-2	3-Nitroaniline	ND	2700	150	ug/kg	
100-01-6	4-Nitroaniline	ND	2700	66	ug/kg	
91-20-3	Naphthalene	140	530	85	ug/kg	J
98-95-3	Nitrobenzene	ND	1300	72	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1300	76	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1300	80	ug/kg	
85-01-8	Phenanthrene	203	530	72	ug/kg	J
129-00-0	Pyrene	216	530	62	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	1300	73	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	70%		30-130%
4165-62-2	Phenol-d5	64%		30-130%
118-79-6	2,4,6-Tribromophenol	56%		30-130%
4165-60-0	Nitrobenzene-d5	62%		30-130%
321-60-8	2-Fluorobiphenyl	76%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 42WADS SB-4 1-2' Lab Sample ID: MC21383-19 Matrix: SO - Soil Method: SW846 8270C SW846 3546 Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 05/31/13 Date Received: 06/01/13 Percent Solids: 91.3
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4.19
4

ABN TCL List

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

(a) Elevated RL due to dilution required for matrix interference.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID:	42WADS SB-4 1-2'	Date Sampled:	05/31/13
Lab Sample ID:	MC21383-19	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	91.3
Method:	SW846 8082 SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB48682.D	1	06/12/13	CZ	06/07/13	OP33538	GBB2904
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	36	16	ug/kg	
11104-28-2	Aroclor 1221	ND	36	21	ug/kg	
11141-16-5	Aroclor 1232	ND	36	17	ug/kg	
53469-21-9	Aroclor 1242	ND	36	18	ug/kg	
12672-29-6	Aroclor 1248	ND	36	16	ug/kg	
11097-69-1	Aroclor 1254	ND	36	26	ug/kg	
11096-82-5	Aroclor 1260	ND	36	18	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	71%		30-150%
877-09-8	Tetrachloro-m-xylene	72%		30-150%
2051-24-3	Decachlorobiphenyl	68%		30-150%
2051-24-3	Decachlorobiphenyl	68%		30-150%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 42WADS SB-4 1-2'	Date Sampled: 05/31/13
Lab Sample ID: MC21383-19	Date Received: 06/01/13
Matrix: SO - Soil	Percent Solids: 91.3
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	1790	20	3.6	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁶
Antimony	0.22 B	1.0	0.15	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁶
Arsenic	4.8	1.0	0.21	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁶
Barium	37.9	5.0	0.073	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁶
Beryllium	0.19 B	0.40	0.024	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁶
Cadmium	0.21 B	0.40	0.043	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁶
Calcium	126000	5000	63	mg/kg	10	06/11/13	06/13/13	EAL SW846 6010C ³	SW846 3050B ⁶
Chromium	10.0	1.0	0.095	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁶
Cobalt	5.2	5.0	0.047	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁶
Copper	28.3	2.5	0.56	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁶
Iron	44500	10	0.87	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁶
Lead	55.4	1.0	0.17	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁶
Magnesium	33800	500	5.1	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁶
Manganese	338	1.5	0.040	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁶
Mercury	0.34	0.035	0.010	mg/kg	1	06/05/13	06/06/13	SA SW846 7471B ¹	SW846 7471B ⁵
Nickel	11.4	4.0	0.044	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁶
Potassium	440 B	500	8.6	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁶
Selenium ^a	0.70 U	2.0	0.70	mg/kg	2	06/11/13	06/17/13	EAL SW846 6010C ⁴	SW846 3050B ⁶
Silver	0.13 U	0.50	0.13	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁶
Sodium	115 B	500	3.3	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁶
Thallium	0.13 U	1.0	0.13	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁶
Vanadium	18.6	1.0	0.13	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁶
Zinc	28.9	2.0	0.16	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁶

(1) Instrument QC Batch: MA15703

(2) Instrument QC Batch: MA15735

(3) Instrument QC Batch: MA15744

(4) Instrument QC Batch: MA15753

(5) Prep QC Batch: MP21118

(6) Prep QC Batch: MP21154

(a) Elevated RL due to dilution required for matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	42WADS SB-4 10-11'	Date Sampled:	05/31/13
Lab Sample ID:	MC21383-20	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	84.6
Method:	SW846 8260B		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M56983.D	1	06/13/13	KD	n/a	n/a	MSM1953
Run #2							

Run #	Initial Weight	Final Volume
Run #1	7.24 g	5.0 ml
Run #2		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	8.2	1.0	ug/kg	
71-43-2	Benzene	0.25	0.41	0.24	ug/kg	J
75-27-4	Bromodichloromethane	ND	1.6	0.17	ug/kg	
75-25-2	Bromoform	ND	1.6	1.6	ug/kg	
74-83-9	Bromomethane	ND	1.6	0.42	ug/kg	
78-93-3	2-Butanone (MEK)	ND	4.1	1.0	ug/kg	
75-15-0	Carbon disulfide	ND	4.1	0.13	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.6	0.59	ug/kg	
108-90-7	Chlorobenzene	ND	1.6	0.22	ug/kg	
75-00-3	Chloroethane	ND	4.1	1.0	ug/kg	
67-66-3	Chloroform	ND	1.6	0.42	ug/kg	
74-87-3	Chloromethane	ND	4.1	0.38	ug/kg	
124-48-1	Dibromochloromethane	ND	1.6	0.24	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.6	0.22	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.6	0.23	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.6	0.30	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.6	0.25	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.6	0.23	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.6	0.30	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.6	0.14	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.6	0.41	ug/kg	
100-41-4	Ethylbenzene	ND	1.6	0.20	ug/kg	
591-78-6	2-Hexanone	ND	4.1	1.0	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.1	0.41	ug/kg	
75-09-2	Methylene chloride	ND	1.6	0.95	ug/kg	
100-42-5	Styrene	ND	4.1	0.19	ug/kg	
79-34-5	1,1,1,2-Tetrachloroethane	ND	1.6	0.35	ug/kg	
127-18-4	Tetrachloroethene	ND	1.6	0.19	ug/kg	
108-88-3	Toluene	ND	4.1	0.69	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	1.6	0.26	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	1.6	0.60	ug/kg	
79-01-6	Trichloroethene	ND	1.6	0.17	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 42WADS SB-4 10-11'	Date Sampled: 05/31/13
Lab Sample ID: MC21383-20	Date Received: 06/01/13
Matrix: SO - Soil	Percent Solids: 84.6
Method: SW846 8260B	
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl chloride	ND	1.6	0.22	ug/kg	
1330-20-7	Xylene (total)	ND	1.6	0.20	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	76%		70-130%
2037-26-5	Toluene-D8	77%		70-130%
460-00-4	4-Bromofluorobenzene	85%		70-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID:	42WADS SB-4 10-11'	Date Sampled:	05/31/13
Lab Sample ID:	MC21383-20	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	84.6
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R31413.D	1	06/13/13	KR	06/07/13	OP33529	MSR1143
Run #2							

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

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	280	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	570	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	570	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	570	93	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	570	71	ug/kg	
95-48-7	2-Methylphenol	ND	570	23	ug/kg	
	3&4-Methylphenol	ND	570	28	ug/kg	
88-75-5	2-Nitrophenol	ND	570	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	110	ug/kg	
87-86-5	Pentachlorophenol	ND	570	40	ug/kg	
108-95-2	Phenol	ND	280	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	570	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	570	14	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	14	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	15	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	17	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	280	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	280	12	ug/kg	
91-58-7	2-Chloronaphthalene	ND	280	15	ug/kg	
106-47-8	4-Chloroaniline	ND	570	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	280	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	280	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	280	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	280	17	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	42WADS SB-4 10-11'	Date Sampled:	05/31/13
Lab Sample ID:	MC21383-20	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	84.6
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	280	15	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	280	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	280	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	570	38	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	570	10	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	280	14	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	14	ug/kg	
132-64-9	Dibenzofuran	ND	110	16	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	280	30	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	280	8.9	ug/kg	
84-66-2	Diethyl phthalate	ND	280	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	280	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	164	280	11	ug/kg	J
206-44-0	Fluoranthene	ND	110	16	ug/kg	
86-73-7	Fluorene	ND	110	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	280	18	ug/kg	
87-68-3	Hexachlorobutadiene	ND	280	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	570	140	ug/kg	
67-72-1	Hexachloroethane	ND	280	14	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	13	ug/kg	
78-59-1	Isophorone	ND	280	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	570	14	ug/kg	
99-09-2	3-Nitroaniline	ND	570	31	ug/kg	
100-01-6	4-Nitroaniline	ND	570	14	ug/kg	
91-20-3	Naphthalene	ND	110	18	ug/kg	
98-95-3	Nitrobenzene	ND	280	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	280	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	280	17	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	280	16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	74%		30-130%
4165-62-2	Phenol-d5	69%		30-130%
118-79-6	2,4,6-Tribromophenol	71%		30-130%
4165-60-0	Nitrobenzene-d5	68%		30-130%
321-60-8	2-Fluorobiphenyl	77%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 42WADS SB-4 10-11' Lab Sample ID: MC21383-20 Matrix: SO - Soil Method: SW846 8270C SW846 3546 Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 05/31/13 Date Received: 06/01/13 Percent Solids: 84.6
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4.20
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ABN TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	85%		30-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID:	42WADS SB-4 10-11'	Date Sampled:	05/31/13
Lab Sample ID:	MC21383-20	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	84.6
Method:	SW846 8082 SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB48683.D	1	06/12/13	CZ	06/07/13	OP33538	GBB2904
Run #2							

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

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	38	17	ug/kg	
11104-28-2	Aroclor 1221	ND	38	23	ug/kg	
11141-16-5	Aroclor 1232	ND	38	18	ug/kg	
53469-21-9	Aroclor 1242	ND	38	19	ug/kg	
12672-29-6	Aroclor 1248	ND	38	17	ug/kg	
11097-69-1	Aroclor 1254	ND	38	28	ug/kg	
11096-82-5	Aroclor 1260	ND	38	19	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	75%		30-150%
877-09-8	Tetrachloro-m-xylene	78%		30-150%
2051-24-3	Decachlorobiphenyl	74%		30-150%
2051-24-3	Decachlorobiphenyl	76%		30-150%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 42WADS SB-4 10-11'	Date Sampled: 05/31/13
Lab Sample ID: MC21383-20	Date Received: 06/01/13
Matrix: SO - Soil	Percent Solids: 84.6
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	5300	20	3.6	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Antimony	0.15 U	0.99	0.15	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Arsenic	2.7	0.99	0.21	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Barium	66.5	5.0	0.072	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Beryllium	0.23 B	0.40	0.024	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Cadmium	0.042 U	0.40	0.042	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Calcium	68500	2500	31	mg/kg	5	06/11/13	06/13/13	EAL SW846 6010C ³	SW846 3050B ⁵
Chromium	8.2	0.99	0.094	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Cobalt	5.0	5.0	0.047	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Copper	13.8	2.5	0.55	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Iron	11100	9.9	0.86	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Lead	4.7	0.99	0.17	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Magnesium	25700	500	5.1	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Manganese	318	1.5	0.040	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Mercury	0.046	0.032	0.0093	mg/kg	1	06/05/13	06/06/13	SA SW846 7471B ¹	SW846 7471B ⁴
Nickel	10.0	4.0	0.044	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Potassium	1230	500	8.5	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Selenium	0.34 U	0.99	0.34	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Silver	0.12 U	0.50	0.12	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Sodium	99.9 B	500	3.3	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Thallium	0.13 U	0.99	0.13	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Vanadium	10.4	0.99	0.13	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Zinc	20.4	2.0	0.16	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵

- (1) Instrument QC Batch: MA15703
- (2) Instrument QC Batch: MA15735
- (3) Instrument QC Batch: MA15744
- (4) Prep QC Batch: MP21118
- (5) Prep QC Batch: MP21154

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	42WADS SB-6 1.5-2.5'	Date Sampled:	05/31/13
Lab Sample ID:	MC21383-21	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	95.2
Method:	SW846 8260B		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M56984.D	1	06/13/13	KD	n/a	n/a	MSM1953
Run #2							

Run #	Initial Weight	Final Volume
Run #1	4.56 g	5.0 ml
Run #2		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	51.5	12	1.5	ug/kg	
71-43-2	Benzene	ND	0.58	0.34	ug/kg	
75-27-4	Bromodichloromethane	ND	2.3	0.24	ug/kg	
75-25-2	Bromoform	ND	2.3	2.3	ug/kg	
74-83-9	Bromomethane	ND	2.3	0.60	ug/kg	
78-93-3	2-Butanone (MEK)	ND	5.8	1.4	ug/kg	
75-15-0	Carbon disulfide	0.62	5.8	0.19	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.3	0.84	ug/kg	
108-90-7	Chlorobenzene	ND	2.3	0.32	ug/kg	
75-00-3	Chloroethane	ND	5.8	1.4	ug/kg	
67-66-3	Chloroform	ND	2.3	0.59	ug/kg	
74-87-3	Chloromethane	ND	5.8	0.53	ug/kg	
124-48-1	Dibromochloromethane	ND	2.3	0.34	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.3	0.31	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.3	0.33	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.3	0.42	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.3	0.35	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.3	0.33	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.3	0.43	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.3	0.20	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.3	0.57	ug/kg	
100-41-4	Ethylbenzene	ND	2.3	0.28	ug/kg	
591-78-6	2-Hexanone	ND	5.8	1.4	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.8	0.58	ug/kg	
75-09-2	Methylene chloride	ND	2.3	1.3	ug/kg	
100-42-5	Styrene	ND	5.8	0.27	ug/kg	
79-34-5	1,1,1,2-Tetrachloroethane	ND	2.3	0.49	ug/kg	
127-18-4	Tetrachloroethene	ND	2.3	0.26	ug/kg	
108-88-3	Toluene	ND	5.8	0.98	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.3	0.36	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.3	0.85	ug/kg	
79-01-6	Trichloroethene	ND	2.3	0.24	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 42WADS SB-6 1.5-2.5'	
Lab Sample ID: MC21383-21	Date Sampled: 05/31/13
Matrix: SO - Soil	Date Received: 06/01/13
Method: SW846 8260B	Percent Solids: 95.2
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl chloride	ND	2.3	0.31	ug/kg	
1330-20-7	Xylene (total)	ND	2.3	0.28	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	76%		70-130%
2037-26-5	Toluene-D8	80%		70-130%
460-00-4	4-Bromofluorobenzene	75%		70-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID:	42WADS SB-6 1.5-2.5'	Date Sampled:	05/31/13
Lab Sample ID:	MC21383-21	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	95.2
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R31414.D	1	06/13/13	KR	06/07/13	OP33529	MSR1143
Run #2 ^a	R31669.D	1	06/21/13	DB	06/07/13	OP33529	MSR1152

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

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	260	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	520	13	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	520	15	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	520	85	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1000	130	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	520	65	ug/kg	
95-48-7	2-Methylphenol	ND	520	21	ug/kg	
	3&4-Methylphenol	ND	520	25	ug/kg	
88-75-5	2-Nitrophenol	ND	520	14	ug/kg	
100-02-7	4-Nitrophenol	ND	1000	98	ug/kg	
87-86-5	Pentachlorophenol	ND	520	37	ug/kg	
108-95-2	Phenol	ND	260	15	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	520	13	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	520	13	ug/kg	
83-32-9	Acenaphthene	ND	100	14	ug/kg	
208-96-8	Acenaphthylene	ND	100	10	ug/kg	
120-12-7	Anthracene	ND	100	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	100	13	ug/kg	
50-32-8	Benzo(a)pyrene	ND	100	11	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	100	13	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	100	10	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	100	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	260	13	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	260	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	260	14	ug/kg	
106-47-8	4-Chloroaniline	ND	520	13	ug/kg	
86-74-8	Carbazole	ND	100	12	ug/kg	
218-01-9	Chrysene	ND	100	13	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	260	12	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	260	16	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	260	19	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	260	16	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	42WADS SB-6 1.5-2.5'	Date Sampled:	05/31/13
Lab Sample ID:	MC21383-21	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	95.2
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	260	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	260	15	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	260	14	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	520	35	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	520	9.5	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	260	13	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	100	12	ug/kg	
132-64-9	Dibenzofuran	ND	100	14	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	260	28	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	260	8.2	ug/kg	
84-66-2	Diethyl phthalate	ND	260	13	ug/kg	
131-11-3	Dimethyl phthalate	ND	260	15	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	28.7	260	9.7	ug/kg	J
206-44-0	Fluoranthene	ND	100	14	ug/kg	
86-73-7	Fluorene	ND	100	14	ug/kg	
118-74-1	Hexachlorobenzene	ND	260	16	ug/kg	
87-68-3	Hexachlorobutadiene	ND	260	15	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	520	130	ug/kg	
67-72-1	Hexachloroethane	ND	260	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	100	12	ug/kg	
78-59-1	Isophorone	ND	260	12	ug/kg	
91-57-6	2-Methylnaphthalene	ND	100	13	ug/kg	
88-74-4	2-Nitroaniline	ND	520	12	ug/kg	
99-09-2	3-Nitroaniline	ND	520	29	ug/kg	
100-01-6	4-Nitroaniline	ND	520	13	ug/kg	
91-20-3	Naphthalene	ND	100	17	ug/kg	
98-95-3	Nitrobenzene	ND	260	14	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	260	15	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	260	16	ug/kg	
85-01-8	Phenanthrene	ND	100	14	ug/kg	
129-00-0	Pyrene	ND	100	12	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	260	14	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	70%	70%	30-130%
4165-62-2	Phenol-d5	67%	69%	30-130%
118-79-6	2,4,6-Tribromophenol	20% ^b	21% ^b	30-130%
4165-60-0	Nitrobenzene-d5	66%	66%	30-130%
321-60-8	2-Fluorobiphenyl	75%	76%	30-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID: 42WADS SB-6 1.5-2.5' Lab Sample ID: MC21383-21 Matrix: SO - Soil Method: SW846 8270C SW846 3546 Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 05/31/13 Date Received: 06/01/13 Percent Solids: 95.2
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ABN TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	80%	76%	30-130%

- (a) Confirmation run for surrogate recoveries.
- (b) Outside control limits due to possible matrix interference. Confirmed by reanalysis.

ND = Not detected	MDL - Method Detection Limit	J = Indicates an estimated value
RL = Reporting Limit		B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range		N = Indicates presumptive evidence of a compound

4.21
4

Report of Analysis

Client Sample ID:	42WADS SB-6 1.5-2.5'	Date Sampled:	05/31/13
Lab Sample ID:	MC21383-21	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	95.2
Method:	SW846 8082 SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB48684.D	1	06/12/13	CZ	06/07/13	OP33538	GBB2904
Run #2							

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

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	33	15	ug/kg	
11104-28-2	Aroclor 1221	ND	33	20	ug/kg	
11141-16-5	Aroclor 1232	ND	33	16	ug/kg	
53469-21-9	Aroclor 1242	ND	33	17	ug/kg	
12672-29-6	Aroclor 1248	ND	33	15	ug/kg	
11097-69-1	Aroclor 1254	ND	33	24	ug/kg	
11096-82-5	Aroclor 1260	ND	33	17	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	74%		30-150%
877-09-8	Tetrachloro-m-xylene	76%		30-150%
2051-24-3	Decachlorobiphenyl	73%		30-150%
2051-24-3	Decachlorobiphenyl	75%		30-150%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 42WADS SB-6 1.5-2.5'	Date Sampled: 05/31/13
Lab Sample ID: MC21383-21	Date Received: 06/01/13
Matrix: SO - Soil	Percent Solids: 95.2
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	1620	20	3.6	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Antimony	0.15 U	1.0	0.15	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Arsenic	1.8	1.0	0.21	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Barium	10.4	5.0	0.073	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Beryllium	0.070 B	0.40	0.024	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Cadmium	0.042 U	0.40	0.042	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Calcium	237000	5000	63	mg/kg	10	06/11/13	06/13/13	EAL SW846 6010C ³	SW846 3050B ⁵
Chromium	2.0	1.0	0.095	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Cobalt	1.8 B	5.0	0.047	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Copper	10.1	2.5	0.56	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Iron	2880	10	0.87	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Lead	2.4	1.0	0.17	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Magnesium	15400	500	5.1	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Manganese	128	1.5	0.040	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Mercury	0.043	0.032	0.0094	mg/kg	1	06/05/13	06/06/13	SA SW846 7471B ¹	SW846 7471B ⁴
Nickel	3.8 B	4.0	0.044	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Potassium	295 B	500	8.6	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Selenium	0.35 U	1.0	0.35	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Silver	0.13 U	0.50	0.13	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Sodium	105 B	500	3.3	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Thallium	0.22 B	1.0	0.13	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Vanadium	2.9	1.0	0.13	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Zinc	6.1	2.0	0.16	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵

- (1) Instrument QC Batch: MA15703
- (2) Instrument QC Batch: MA15735
- (3) Instrument QC Batch: MA15744
- (4) Prep QC Batch: MP21118
- (5) Prep QC Batch: MP21154

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	42WADS SB-6 8-10'	Date Sampled:	05/31/13
Lab Sample ID:	MC21383-22	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	84.3
Method:	SW846 8260B		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M56985.D	1	06/13/13	KD	n/a	n/a	MSM1953
Run #2							

Run #	Initial Weight	Final Volume
Run #1	8.08 g	5.0 ml
Run #2		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	7.3	0.93	ug/kg	
71-43-2	Benzene	ND	0.37	0.22	ug/kg	
75-27-4	Bromodichloromethane	ND	1.5	0.16	ug/kg	
75-25-2	Bromoform	ND	1.5	1.5	ug/kg	
74-83-9	Bromomethane	ND	1.5	0.38	ug/kg	
78-93-3	2-Butanone (MEK)	ND	3.7	0.92	ug/kg	
75-15-0	Carbon disulfide	ND	3.7	0.12	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.5	0.53	ug/kg	
108-90-7	Chlorobenzene	ND	1.5	0.20	ug/kg	
75-00-3	Chloroethane	ND	3.7	0.92	ug/kg	
67-66-3	Chloroform	ND	1.5	0.38	ug/kg	
74-87-3	Chloromethane	ND	3.7	0.34	ug/kg	
124-48-1	Dibromochloromethane	ND	1.5	0.22	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.5	0.20	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.5	0.21	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.5	0.27	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.5	0.22	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.5	0.21	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.5	0.27	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.5	0.13	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.5	0.36	ug/kg	
100-41-4	Ethylbenzene	ND	1.5	0.18	ug/kg	
591-78-6	2-Hexanone	ND	3.7	0.92	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	3.7	0.37	ug/kg	
75-09-2	Methylene chloride	ND	1.5	0.85	ug/kg	
100-42-5	Styrene	ND	3.7	0.17	ug/kg	
79-34-5	1,1,1,2-Tetrachloroethane	ND	1.5	0.31	ug/kg	
127-18-4	Tetrachloroethene	ND	1.5	0.17	ug/kg	
108-88-3	Toluene	ND	3.7	0.62	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	1.5	0.23	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.54	ug/kg	
79-01-6	Trichloroethene	ND	1.5	0.16	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 42WADS SB-6 8-10'	
Lab Sample ID: MC21383-22	Date Sampled: 05/31/13
Matrix: SO - Soil	Date Received: 06/01/13
Method: SW846 8260B	Percent Solids: 84.3
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl chloride	ND	1.5	0.20	ug/kg	
1330-20-7	Xylene (total)	ND	1.5	0.18	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	74%		70-130%
2037-26-5	Toluene-D8	79%		70-130%
460-00-4	4-Bromofluorobenzene	78%		70-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID:	42WADS SB-6 8-10'	Date Sampled:	05/31/13
Lab Sample ID:	MC21383-22	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	84.3
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R31415.D	1	06/13/13	KR	06/07/13	OP33529	MSR1143
Run #2							

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

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	290	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	590	15	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	590	17	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	590	96	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1200	150	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	590	73	ug/kg	
95-48-7	2-Methylphenol	ND	590	23	ug/kg	
	3&4-Methylphenol	ND	590	29	ug/kg	
88-75-5	2-Nitrophenol	ND	590	16	ug/kg	
100-02-7	4-Nitrophenol	ND	1200	110	ug/kg	
87-86-5	Pentachlorophenol	ND	590	41	ug/kg	
108-95-2	Phenol	ND	290	17	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	590	15	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	590	14	ug/kg	
83-32-9	Acenaphthene	ND	120	16	ug/kg	
208-96-8	Acenaphthylene	ND	120	12	ug/kg	
120-12-7	Anthracene	ND	120	14	ug/kg	
56-55-3	Benzo(a)anthracene	ND	120	15	ug/kg	
50-32-8	Benzo(a)pyrene	ND	120	13	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	120	15	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	120	12	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	120	18	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	290	15	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	290	12	ug/kg	
91-58-7	2-Chloronaphthalene	ND	290	16	ug/kg	
106-47-8	4-Chloroaniline	ND	590	15	ug/kg	
86-74-8	Carbazole	ND	120	14	ug/kg	
218-01-9	Chrysene	ND	120	15	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	290	14	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	290	18	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	290	21	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	290	18	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	42WADS SB-6 8-10'	Date Sampled:	05/31/13
Lab Sample ID:	MC21383-22	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	84.3
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	290	15	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	290	17	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	290	16	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	590	39	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	590	11	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	290	15	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	120	14	ug/kg	
132-64-9	Dibenzofuran	ND	120	16	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	290	31	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	290	9.2	ug/kg	
84-66-2	Diethyl phthalate	ND	290	15	ug/kg	
131-11-3	Dimethyl phthalate	ND	290	17	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	736	290	11	ug/kg	
206-44-0	Fluoranthene	ND	120	16	ug/kg	
86-73-7	Fluorene	ND	120	16	ug/kg	
118-74-1	Hexachlorobenzene	ND	290	18	ug/kg	
87-68-3	Hexachlorobutadiene	ND	290	17	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	590	150	ug/kg	
67-72-1	Hexachloroethane	ND	290	14	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	120	13	ug/kg	
78-59-1	Isophorone	ND	290	14	ug/kg	
91-57-6	2-Methylnaphthalene	ND	120	15	ug/kg	
88-74-4	2-Nitroaniline	ND	590	14	ug/kg	
99-09-2	3-Nitroaniline	ND	590	32	ug/kg	
100-01-6	4-Nitroaniline	ND	590	15	ug/kg	
91-20-3	Naphthalene	ND	120	19	ug/kg	
98-95-3	Nitrobenzene	ND	290	16	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	290	17	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	290	18	ug/kg	
85-01-8	Phenanthrene	ND	120	16	ug/kg	
129-00-0	Pyrene	ND	120	14	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	290	16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	73%		30-130%
4165-62-2	Phenol-d5	68%		30-130%
118-79-6	2,4,6-Tribromophenol	70%		30-130%
4165-60-0	Nitrobenzene-d5	67%		30-130%
321-60-8	2-Fluorobiphenyl	76%		30-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID: 42WADS SB-6 8-10' Lab Sample ID: MC21383-22 Matrix: SO - Soil Method: SW846 8270C SW846 3546 Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 05/31/13 Date Received: 06/01/13 Percent Solids: 84.3
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ABN TCL List

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

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.22
4

Report of Analysis

Client Sample ID: 42WADS SB-6 8-10' Lab Sample ID: MC21383-22 Matrix: SO - Soil Method: SW846 8082 SW846 3546 Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 05/31/13 Date Received: 06/01/13 Percent Solids: 84.3
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB48685.D	1	06/12/13	CZ	06/07/13	OP33538	GBB2904
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.8 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	37	17	ug/kg	
11104-28-2	Aroclor 1221	ND	37	22	ug/kg	
11141-16-5	Aroclor 1232	ND	37	18	ug/kg	
53469-21-9	Aroclor 1242	ND	37	19	ug/kg	
12672-29-6	Aroclor 1248	ND	37	17	ug/kg	
11097-69-1	Aroclor 1254	ND	37	27	ug/kg	
11096-82-5	Aroclor 1260	ND	37	19	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	81%		30-150%
877-09-8	Tetrachloro-m-xylene	81%		30-150%
2051-24-3	Decachlorobiphenyl	82%		30-150%
2051-24-3	Decachlorobiphenyl	83%		30-150%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.22
4

Report of Analysis

Client Sample ID:	42WADS SB-6 8-10'	Date Sampled:	05/31/13
Lab Sample ID:	MC21383-22	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	84.3
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	5830	20	3.5	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Antimony	0.15 U	0.98	0.15	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Arsenic	2.6	0.98	0.20	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Barium	107	4.9	0.071	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Beryllium	0.25 B	0.39	0.023	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Cadmium	0.041 U	0.39	0.041	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Calcium	79300	2500	31	mg/kg	5	06/11/13	06/13/13	EAL SW846 6010C ³	SW846 3050B ⁵
Chromium	8.4	0.98	0.093	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Cobalt	5.0	4.9	0.046	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Copper	14.2	2.5	0.54	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Iron	10900	9.8	0.85	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Lead	4.6	0.98	0.16	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Magnesium	28900	490	5.0	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Manganese	353	1.5	0.039	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Mercury	0.032	0.032	0.0094	mg/kg	1	06/05/13	06/06/13	SA SW846 7471B ¹	SW846 7471B ⁴
Nickel	11.4	3.9	0.043	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Potassium	1220	490	8.4	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Selenium	0.34 U	0.98	0.34	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Silver	0.12 U	0.49	0.12	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Sodium	112 B	490	3.2	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Thallium	0.13 U	0.98	0.13	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Vanadium	11.1	0.98	0.13	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Zinc	25.0	2.0	0.16	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵

- (1) Instrument QC Batch: MA15703
- (2) Instrument QC Batch: MA15735
- (3) Instrument QC Batch: MA15744
- (4) Prep QC Batch: MP21118
- (5) Prep QC Batch: MP21154

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	42WADS SB-7 1.5-2.5'	Date Sampled:	05/31/13
Lab Sample ID:	MC21383-23	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	79.6
Method:	SW846 8260B		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M56986.D	1	06/13/13	KD	n/a	n/a	MSM1953
Run #2							

Run #	Initial Weight	Final Volume
Run #1	9.29 g	5.0 ml
Run #2		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	6.8	0.85	ug/kg	
71-43-2	Benzene	18.5	0.34	0.20	ug/kg	
75-27-4	Bromodichloromethane	ND	1.4	0.14	ug/kg	
75-25-2	Bromoform	ND	1.4	1.4	ug/kg	
74-83-9	Bromomethane	ND	1.4	0.35	ug/kg	
78-93-3	2-Butanone (MEK)	ND	3.4	0.85	ug/kg	
75-15-0	Carbon disulfide	ND	3.4	0.11	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.4	0.49	ug/kg	
108-90-7	Chlorobenzene	ND	1.4	0.19	ug/kg	
75-00-3	Chloroethane	ND	3.4	0.85	ug/kg	
67-66-3	Chloroform	ND	1.4	0.35	ug/kg	
74-87-3	Chloromethane	ND	3.4	0.31	ug/kg	
124-48-1	Dibromochloromethane	ND	1.4	0.20	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.4	0.18	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.4	0.19	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.4	0.25	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.4	0.20	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.4	0.19	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.4	0.25	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.4	0.12	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.4	0.34	ug/kg	
100-41-4	Ethylbenzene	3.4	1.4	0.16	ug/kg	
591-78-6	2-Hexanone	ND	3.4	0.85	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	3.4	0.34	ug/kg	
75-09-2	Methylene chloride	ND	1.4	0.78	ug/kg	
100-42-5	Styrene	1.0	3.4	0.16	ug/kg	J
79-34-5	1,1,1,2-Tetrachloroethane	ND	1.4	0.29	ug/kg	
127-18-4	Tetrachloroethene	ND	1.4	0.15	ug/kg	
108-88-3	Toluene	11.2	3.4	0.57	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	1.4	0.21	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	1.4	0.50	ug/kg	
79-01-6	Trichloroethene	ND	1.4	0.14	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 42WADS SB-7 1.5-2.5'	
Lab Sample ID: MC21383-23	Date Sampled: 05/31/13
Matrix: SO - Soil	Date Received: 06/01/13
Method: SW846 8260B	Percent Solids: 79.6
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl chloride	ND	1.4	0.18	ug/kg	
1330-20-7	Xylene (total)	6.6	1.4	0.16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	75%		70-130%
2037-26-5	Toluene-D8	75%		70-130%
460-00-4	4-Bromofluorobenzene	87%		70-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.23
4

Report of Analysis

Client Sample ID:	42WADS SB-7 1.5-2.5'	Date Sampled:	05/31/13
Lab Sample ID:	MC21383-23	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	79.6
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R31416.D	1	06/14/13	KR	06/07/13	OP33529	MSR1143
Run #2 ^a	F65197.D	1	06/26/13	KR	06/21/13	OP33716	MSF3025

Run #	Initial Weight	Final Volume
Run #1	20.5 g	1.0 ml
Run #2	20.6 g	1.0 ml

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	310	14	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	610	16	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	610	18	ug/kg	
105-67-9	2,4-Dimethylphenol	2220	610	100	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1200	150	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	610	77	ug/kg	
95-48-7	2-Methylphenol	974	610	24	ug/kg	
	3&4-Methylphenol	2260	610	30	ug/kg	
88-75-5	2-Nitrophenol	ND	610	16	ug/kg	
100-02-7	4-Nitrophenol	ND	1200	110	ug/kg	
87-86-5	Pentachlorophenol	ND	610	43	ug/kg	
108-95-2	Phenol	1490	310	17	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	610	15	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	610	15	ug/kg	
83-32-9	Acenaphthene	102	120	16	ug/kg	J
208-96-8	Acenaphthylene	ND	120	12	ug/kg	
120-12-7	Anthracene	55.8	120	15	ug/kg	J
56-55-3	Benzo(a)anthracene	ND	120	16	ug/kg	
50-32-8	Benzo(a)pyrene	ND	120	13	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	120	15	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	120	12	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	120	19	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	310	15	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	310	13	ug/kg	
91-58-7	2-Chloronaphthalene	ND	310	17	ug/kg	
106-47-8	4-Chloroaniline	ND	610	15	ug/kg	
86-74-8	Carbazole	ND	120	14	ug/kg	
218-01-9	Chrysene	138	120	15	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	310	14	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	310	19	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	310	22	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	310	19	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	42WADS SB-7 1.5-2.5'	Date Sampled:	05/31/13
Lab Sample ID:	MC21383-23	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	79.6
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	310	16	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	310	18	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	310	16	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	610	41	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	610	11	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	310	15	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	120	15	ug/kg	
132-64-9	Dibenzofuran	ND	120	17	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	310	32	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	310	9.6	ug/kg	
84-66-2	Diethyl phthalate	ND	310	15	ug/kg	
131-11-3	Dimethyl phthalate	ND	310	18	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	310	11	ug/kg	
206-44-0	Fluoranthene	ND	120	17	ug/kg	
86-73-7	Fluorene	149	120	16	ug/kg	
118-74-1	Hexachlorobenzene	ND	310	19	ug/kg	
87-68-3	Hexachlorobutadiene	ND	310	18	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	610	150	ug/kg	
67-72-1	Hexachloroethane	ND	310	15	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	120	14	ug/kg	
78-59-1	Isophorone	ND	310	14	ug/kg	
91-57-6	2-Methylnaphthalene	1230	120	16	ug/kg	
88-74-4	2-Nitroaniline	ND	610	15	ug/kg	
99-09-2	3-Nitroaniline	ND	610	34	ug/kg	
100-01-6	4-Nitroaniline	ND	610	15	ug/kg	
91-20-3	Naphthalene	547	120	20	ug/kg	
98-95-3	Nitrobenzene	ND	310	17	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	310	18	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	310	18	ug/kg	
85-01-8	Phenanthrene	299	120	17	ug/kg	
129-00-0	Pyrene	85.0	120	14	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	310	17	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	72%	68%	30-130%
4165-62-2	Phenol-d5	55%	65%	30-130%
118-79-6	2,4,6-Tribromophenol	14% ^b	58%	30-130%
4165-60-0	Nitrobenzene-d5	7% ^b	2% ^b	30-130%
321-60-8	2-Fluorobiphenyl	70%	82%	30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 42WADS SB-7 1.5-2.5'	
Lab Sample ID: MC21383-23	Date Sampled: 05/31/13
Matrix: SO - Soil	Date Received: 06/01/13
Method: SW846 8270C SW846 3546	Percent Solids: 79.6
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

ABN TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	52%	93%	30-130%

- (a) Confirmation run.
- (b) Outside control limits due to possible matrix interference. Confirmed by re-extraction/reanalysis.

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

4.23
4

Report of Analysis

Client Sample ID: 42WADS SB-7 1.5-2.5' Lab Sample ID: MC21383-23 Matrix: SO - Soil Method: SW846 8082 SW846 3546 Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 05/31/13 Date Received: 06/01/13 Percent Solids: 79.6
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB48686.D	1	06/12/13	CZ	06/07/13	OP33538	GBB2904
Run #2							

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

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	41	18	ug/kg	
11104-28-2	Aroclor 1221	ND	41	24	ug/kg	
11141-16-5	Aroclor 1232	ND	41	19	ug/kg	
53469-21-9	Aroclor 1242	ND	41	20	ug/kg	
12672-29-6	Aroclor 1248	ND	41	18	ug/kg	
11097-69-1	Aroclor 1254	ND	41	30	ug/kg	
11096-82-5	Aroclor 1260	ND	41	21	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	64%		30-150%
877-09-8	Tetrachloro-m-xylene	64%		30-150%
2051-24-3	Decachlorobiphenyl	68%		30-150%
2051-24-3	Decachlorobiphenyl	68%		30-150%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.23
4

Report of Analysis

Client Sample ID: 42WADS SB-7 1.5-2.5'	Date Sampled: 05/31/13
Lab Sample ID: MC21383-23	Date Received: 06/01/13
Matrix: SO - Soil	Percent Solids: 79.6
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	2970	20	3.6	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Antimony	6.4	1.0	0.15	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Arsenic	42.0	1.0	0.21	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Barium	5.9	5.0	0.073	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Beryllium	0.20 B	0.40	0.024	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Cadmium ^a	0.57 B	4.0	0.43	mg/kg	10	06/11/13	06/13/13	EAL SW846 6010C ³	SW846 3050B ⁵
Calcium	350 B	500	6.3	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Chromium	202	1.0	0.095	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Cobalt	25.0	5.0	0.047	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Copper	250	2.5	0.56	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Iron	354000	100	8.7	mg/kg	10	06/11/13	06/13/13	EAL SW846 6010C ³	SW846 3050B ⁵
Lead	40.4	1.0	0.17	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Magnesium	1130	500	5.1	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Manganese	1280	1.5	0.040	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Mercury	0.050	0.033	0.0096	mg/kg	1	06/07/13	06/07/13	SA SW846 7471B ¹	SW846 7471B ⁴
Nickel	195	4.0	0.044	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Potassium	83.9 B	500	8.6	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Selenium ^a	3.5 U	10	3.5	mg/kg	10	06/11/13	06/13/13	EAL SW846 6010C ³	SW846 3050B ⁵
Silver	0.20 B	0.50	0.13	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Sodium	35.2 B	500	3.3	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Thallium	0.54 B	1.0	0.13	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Vanadium	18.8	1.0	0.13	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵
Zinc	21.1	2.0	0.16	mg/kg	1	06/11/13	06/12/13	EAL SW846 6010C ²	SW846 3050B ⁵

(1) Instrument QC Batch: MA15719

(2) Instrument QC Batch: MA15735

(3) Instrument QC Batch: MA15744

(4) Prep QC Batch: MP21134

(5) Prep QC Batch: MP21154

(a) Elevated RL due to dilution required for matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	42WADS SB-8 17.5-18.7'	Date Sampled:	05/31/13
Lab Sample ID:	MC21383-24	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	87.5
Method:	SW846 8260B		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M56987.D	1	06/13/13	KD	n/a	n/a	MSM1953
Run #2							

Run #	Initial Weight	Final Volume
Run #1	6.64 g	5.0 ml
Run #2		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	8.6	1.1	ug/kg	
71-43-2	Benzene	0.29	0.43	0.25	ug/kg	J
75-27-4	Bromodichloromethane	ND	1.7	0.18	ug/kg	
75-25-2	Bromoform	ND	1.7	1.7	ug/kg	
74-83-9	Bromomethane	ND	1.7	0.45	ug/kg	
78-93-3	2-Butanone (MEK)	ND	4.3	1.1	ug/kg	
75-15-0	Carbon disulfide	ND	4.3	0.14	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.7	0.63	ug/kg	
108-90-7	Chlorobenzene	ND	1.7	0.24	ug/kg	
75-00-3	Chloroethane	ND	4.3	1.1	ug/kg	
67-66-3	Chloroform	ND	1.7	0.44	ug/kg	
74-87-3	Chloromethane	ND	4.3	0.40	ug/kg	
124-48-1	Dibromochloromethane	ND	1.7	0.25	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.7	0.23	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.7	0.25	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.7	0.32	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.7	0.26	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.7	0.25	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.7	0.32	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.7	0.15	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.7	0.43	ug/kg	
100-41-4	Ethylbenzene	ND	1.7	0.21	ug/kg	
591-78-6	2-Hexanone	ND	4.3	1.1	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.3	0.43	ug/kg	
75-09-2	Methylene chloride	ND	1.7	1.0	ug/kg	
100-42-5	Styrene	ND	4.3	0.20	ug/kg	
79-34-5	1,1,1,2-Tetrachloroethane	ND	1.7	0.37	ug/kg	
127-18-4	Tetrachloroethene	ND	1.7	0.20	ug/kg	
108-88-3	Toluene	ND	4.3	0.73	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	1.7	0.27	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	1.7	0.63	ug/kg	
79-01-6	Trichloroethene	ND	1.7	0.18	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 42WADS SB-8 17.5-18.7'	Date Sampled: 05/31/13
Lab Sample ID: MC21383-24	Date Received: 06/01/13
Matrix: SO - Soil	Percent Solids: 87.5
Method: SW846 8260B	
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl chloride	ND	1.7	0.23	ug/kg	
1330-20-7	Xylene (total)	ND	1.7	0.21	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	77%		70-130%
2037-26-5	Toluene-D8	77%		70-130%
460-00-4	4-Bromofluorobenzene	97%		70-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID:	42WADS SB-8 17.5-18.7'	Date Sampled:	05/31/13
Lab Sample ID:	MC21383-24	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	87.5
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R31417.D	1	06/14/13	KR	06/07/13	OP33529	MSR1143
Run #2							

Run #	Initial Weight	Final Volume
Run #1	20.0 g	1.0 ml
Run #2		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	290	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	570	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	570	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	570	93	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	570	71	ug/kg	
95-48-7	2-Methylphenol	ND	570	23	ug/kg	
	3&4-Methylphenol	ND	570	28	ug/kg	
88-75-5	2-Nitrophenol	ND	570	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	110	ug/kg	
87-86-5	Pentachlorophenol	ND	570	40	ug/kg	
108-95-2	Phenol	ND	290	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	570	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	570	14	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	14	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	15	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	17	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	290	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	290	12	ug/kg	
91-58-7	2-Chloronaphthalene	ND	290	15	ug/kg	
106-47-8	4-Chloroaniline	ND	570	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	290	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	290	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	290	21	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	290	17	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	42WADS SB-8 17.5-18.7'	Date Sampled:	05/31/13
Lab Sample ID:	MC21383-24	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	87.5
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	290	15	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	290	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	290	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	570	38	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	570	10	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	290	14	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	14	ug/kg	
132-64-9	Dibenzofuran	ND	110	16	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	290	30	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	290	8.9	ug/kg	
84-66-2	Diethyl phthalate	ND	290	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	290	17	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	163	290	11	ug/kg	J
206-44-0	Fluoranthene	ND	110	16	ug/kg	
86-73-7	Fluorene	ND	110	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	290	18	ug/kg	
87-68-3	Hexachlorobutadiene	ND	290	17	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	570	140	ug/kg	
67-72-1	Hexachloroethane	ND	290	14	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	13	ug/kg	
78-59-1	Isophorone	ND	290	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	570	14	ug/kg	
99-09-2	3-Nitroaniline	ND	570	31	ug/kg	
100-01-6	4-Nitroaniline	ND	570	14	ug/kg	
91-20-3	Naphthalene	ND	110	18	ug/kg	
98-95-3	Nitrobenzene	ND	290	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	290	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	290	17	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	290	16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	76%		30-130%
4165-62-2	Phenol-d5	71%		30-130%
118-79-6	2,4,6-Tribromophenol	72%		30-130%
4165-60-0	Nitrobenzene-d5	70%		30-130%
321-60-8	2-Fluorobiphenyl	79%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 42WADS SB-8 17.5-18.7' Lab Sample ID: MC21383-24 Matrix: SO - Soil Method: SW846 8270C SW846 3546 Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 05/31/13 Date Received: 06/01/13 Percent Solids: 87.5
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4.24
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ABN TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	86%		30-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID:	42WADS SB-8 17.5-18.7'	Date Sampled:	05/31/13
Lab Sample ID:	MC21383-24	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	87.5
Method:	SW846 8082 SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB48687.D	1	06/12/13	CZ	06/07/13	OP33538	GBB2904
Run #2							

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

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	36	16	ug/kg	
11104-28-2	Aroclor 1221	ND	36	21	ug/kg	
11141-16-5	Aroclor 1232	ND	36	17	ug/kg	
53469-21-9	Aroclor 1242	ND	36	18	ug/kg	
12672-29-6	Aroclor 1248	ND	36	16	ug/kg	
11097-69-1	Aroclor 1254	ND	36	26	ug/kg	
11096-82-5	Aroclor 1260	ND	36	18	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	83%		30-150%
877-09-8	Tetrachloro-m-xylene	87%		30-150%
2051-24-3	Decachlorobiphenyl	75%		30-150%
2051-24-3	Decachlorobiphenyl	77%		30-150%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 42WADS SB-8 17.5-18.7' Lab Sample ID: MC21383-24 Matrix: SO - Soil Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 05/31/13 Date Received: 06/01/13 Percent Solids: 87.5
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Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method	
Aluminum	7990	20	3.6	mg/kg	1	06/11/13	06/12/13	EAL	SW846 6010C ²	SW846 3050B ⁵
Antimony	0.15 U	1.0	0.15	mg/kg	1	06/11/13	06/12/13	EAL	SW846 6010C ²	SW846 3050B ⁵
Arsenic	3.0	1.0	0.21	mg/kg	1	06/11/13	06/12/13	EAL	SW846 6010C ²	SW846 3050B ⁵
Barium	65.9	5.0	0.073	mg/kg	1	06/11/13	06/12/13	EAL	SW846 6010C ²	SW846 3050B ⁵
Beryllium	0.34 B	0.40	0.024	mg/kg	1	06/11/13	06/12/13	EAL	SW846 6010C ²	SW846 3050B ⁵
Cadmium	0.042 U	0.40	0.042	mg/kg	1	06/11/13	06/12/13	EAL	SW846 6010C ²	SW846 3050B ⁵
Calcium	68700	2500	31	mg/kg	5	06/11/13	06/14/13	EAL	SW846 6010C ³	SW846 3050B ⁵
Chromium	11.3	1.0	0.095	mg/kg	1	06/11/13	06/12/13	EAL	SW846 6010C ²	SW846 3050B ⁵
Cobalt	6.5	5.0	0.047	mg/kg	1	06/11/13	06/12/13	EAL	SW846 6010C ²	SW846 3050B ⁵
Copper	15.8	2.5	0.56	mg/kg	1	06/11/13	06/12/13	EAL	SW846 6010C ²	SW846 3050B ⁵
Iron	14000	10	0.87	mg/kg	1	06/11/13	06/12/13	EAL	SW846 6010C ²	SW846 3050B ⁵
Lead	5.3	1.0	0.17	mg/kg	1	06/11/13	06/12/13	EAL	SW846 6010C ²	SW846 3050B ⁵
Magnesium	27900	500	5.1	mg/kg	1	06/11/13	06/12/13	EAL	SW846 6010C ²	SW846 3050B ⁵
Manganese	355	1.5	0.040	mg/kg	1	06/11/13	06/12/13	EAL	SW846 6010C ²	SW846 3050B ⁵
Mercury	0.025 B	0.033	0.0096	mg/kg	1	06/07/13	06/07/13	SA	SW846 7471B ¹	SW846 7471B ⁴
Nickel	14.5	4.0	0.044	mg/kg	1	06/11/13	06/12/13	EAL	SW846 6010C ²	SW846 3050B ⁵
Potassium	1810	500	8.6	mg/kg	1	06/11/13	06/12/13	EAL	SW846 6010C ²	SW846 3050B ⁵
Selenium	0.35 U	1.0	0.35	mg/kg	1	06/11/13	06/12/13	EAL	SW846 6010C ²	SW846 3050B ⁵
Silver	0.13 U	0.50	0.13	mg/kg	1	06/11/13	06/12/13	EAL	SW846 6010C ²	SW846 3050B ⁵
Sodium	107 B	500	3.3	mg/kg	1	06/11/13	06/12/13	EAL	SW846 6010C ²	SW846 3050B ⁵
Thallium	0.13 U	1.0	0.13	mg/kg	1	06/11/13	06/12/13	EAL	SW846 6010C ²	SW846 3050B ⁵
Vanadium	12.7	1.0	0.13	mg/kg	1	06/11/13	06/12/13	EAL	SW846 6010C ²	SW846 3050B ⁵
Zinc	25.3	2.0	0.16	mg/kg	1	06/11/13	06/12/13	EAL	SW846 6010C ²	SW846 3050B ⁵

- (1) Instrument QC Batch: MA15719
- (2) Instrument QC Batch: MA15735
- (3) Instrument QC Batch: MA15751
- (4) Prep QC Batch: MP21134
- (5) Prep QC Batch: MP21154

RL = Reporting Limit
 MDL = Method Detection Limit

U = Indicates a result < MDL
 B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	42WADS SB-9 11-12'	Date Sampled:	05/31/13
Lab Sample ID:	MC21383-25	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	86.4
Method:	SW846 8260B		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M57017.D	1	06/14/13	KD	n/a	n/a	MSM1954
Run #2							

Run #	Initial Weight	Final Volume
Run #1	7.90 g	5.0 ml
Run #2		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	7.3	0.92	ug/kg	
71-43-2	Benzene	ND	0.37	0.22	ug/kg	
75-27-4	Bromodichloromethane	ND	1.5	0.15	ug/kg	
75-25-2	Bromoform	ND	1.5	1.5	ug/kg	
74-83-9	Bromomethane	ND	1.5	0.38	ug/kg	
78-93-3	2-Butanone (MEK)	ND	3.7	0.92	ug/kg	
75-15-0	Carbon disulfide	ND	3.7	0.12	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.5	0.53	ug/kg	
108-90-7	Chlorobenzene	ND	1.5	0.20	ug/kg	
75-00-3	Chloroethane	ND	3.7	0.92	ug/kg	
67-66-3	Chloroform	ND	1.5	0.38	ug/kg	
74-87-3	Chloromethane	ND	3.7	0.34	ug/kg	
124-48-1	Dibromochloromethane	ND	1.5	0.22	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.5	0.20	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.5	0.21	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.5	0.27	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.5	0.22	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.5	0.21	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.5	0.27	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.5	0.13	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.5	0.36	ug/kg	
100-41-4	Ethylbenzene	ND	1.5	0.18	ug/kg	
591-78-6	2-Hexanone	ND	3.7	0.92	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	3.7	0.37	ug/kg	
75-09-2	Methylene chloride	ND	1.5	0.85	ug/kg	
100-42-5	Styrene	ND	3.7	0.17	ug/kg	
79-34-5	1,1,1,2-Tetrachloroethane	ND	1.5	0.31	ug/kg	
127-18-4	Tetrachloroethene	ND	1.5	0.17	ug/kg	
108-88-3	Toluene	ND	3.7	0.62	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	1.5	0.23	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.54	ug/kg	
79-01-6	Trichloroethene	ND	1.5	0.15	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 42WADS SB-9 11-12'	
Lab Sample ID: MC21383-25	Date Sampled: 05/31/13
Matrix: SO - Soil	Date Received: 06/01/13
Method: SW846 8260B	Percent Solids: 86.4
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl chloride	ND	1.5	0.20	ug/kg	
1330-20-7	Xylene (total)	ND	1.5	0.18	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	76%		70-130%
2037-26-5	Toluene-D8	78%		70-130%
460-00-4	4-Bromofluorobenzene	96%		70-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID:	42WADS SB-9 11-12'	Date Sampled:	05/31/13
Lab Sample ID:	MC21383-25	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	86.4
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R31418.D	1	06/14/13	KR	06/07/13	OP33529	MSR1143
Run #2							

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

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	290	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	570	15	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	570	17	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	570	93	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	570	72	ug/kg	
95-48-7	2-Methylphenol	ND	570	23	ug/kg	
	3&4-Methylphenol	ND	570	28	ug/kg	
88-75-5	2-Nitrophenol	ND	570	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	110	ug/kg	
87-86-5	Pentachlorophenol	ND	570	40	ug/kg	
108-95-2	Phenol	ND	290	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	570	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	570	14	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	14	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	15	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	17	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	290	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	290	12	ug/kg	
91-58-7	2-Chloronaphthalene	ND	290	16	ug/kg	
106-47-8	4-Chloroaniline	ND	570	14	ug/kg	
86-74-8	Carbazole	ND	110	14	ug/kg	
218-01-9	Chrysene	ND	110	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	290	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	290	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	290	21	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	290	18	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	42WADS SB-9 11-12'	Date Sampled:	05/31/13
Lab Sample ID:	MC21383-25	Date Received:	06/01/13
Matrix:	SO - Soil	Percent Solids:	86.4
Method:	SW846 8270C SW846 3546		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	290	15	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	290	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	290	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	570	38	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	570	10	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	290	14	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	14	ug/kg	
132-64-9	Dibenzofuran	ND	110	16	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	290	30	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	290	8.9	ug/kg	
84-66-2	Diethyl phthalate	ND	290	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	290	17	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	17.0	290	11	ug/kg	J
206-44-0	Fluoranthene	ND	110	16	ug/kg	
86-73-7	Fluorene	ND	110	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	290	18	ug/kg	
87-68-3	Hexachlorobutadiene	ND	290	17	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	570	140	ug/kg	
67-72-1	Hexachloroethane	ND	290	14	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	13	ug/kg	
78-59-1	Isophorone	ND	290	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	15	ug/kg	
88-74-4	2-Nitroaniline	ND	570	14	ug/kg	
99-09-2	3-Nitroaniline	ND	570	31	ug/kg	
100-01-6	4-Nitroaniline	ND	570	14	ug/kg	
91-20-3	Naphthalene	ND	110	18	ug/kg	
98-95-3	Nitrobenzene	ND	290	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	290	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	290	17	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	290	16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	70%		30-130%
4165-62-2	Phenol-d5	66%		30-130%
118-79-6	2,4,6-Tribromophenol	56%		30-130%
4165-60-0	Nitrobenzene-d5	65%		30-130%
321-60-8	2-Fluorobiphenyl	75%		30-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID: 42WADS SB-9 11-12' Lab Sample ID: MC21383-25 Matrix: SO - Soil Method: SW846 8270C SW846 3546 Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 05/31/13 Date Received: 06/01/13 Percent Solids: 86.4
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ABN TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	86%		30-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.25
4

Report of Analysis

Client Sample ID: 42WADS SB-9 11-12'	Date Sampled: 05/31/13
Lab Sample ID: MC21383-25	Date Received: 06/01/13
Matrix: SO - Soil	Percent Solids: 86.4
Method: SW846 8082 SW846 3546	
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB48688.D	1	06/12/13	CZ	06/07/13	OP33538	GBB2904
Run #2							

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

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	37	17	ug/kg	
11104-28-2	Aroclor 1221	ND	37	22	ug/kg	
11141-16-5	Aroclor 1232	ND	37	18	ug/kg	
53469-21-9	Aroclor 1242	ND	37	19	ug/kg	
12672-29-6	Aroclor 1248	ND	37	17	ug/kg	
11097-69-1	Aroclor 1254	ND	37	27	ug/kg	
11096-82-5	Aroclor 1260	ND	37	19	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	78%		30-150%
877-09-8	Tetrachloro-m-xylene	81%		30-150%
2051-24-3	Decachlorobiphenyl	74%		30-150%
2051-24-3	Decachlorobiphenyl	77%		30-150%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 42WADS SB-9 11-12' Lab Sample ID: MC21383-25 Matrix: SO - Soil Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 05/31/13 Date Received: 06/01/13 Percent Solids: 86.4
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Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method	
Aluminum	8490	20	3.5	mg/kg	1	06/11/13	06/12/13	EAL	SW846 6010C ²	SW846 3050B ⁵
Antimony	0.15 U	0.99	0.15	mg/kg	1	06/11/13	06/12/13	EAL	SW846 6010C ²	SW846 3050B ⁵
Arsenic	3.4	0.99	0.21	mg/kg	1	06/11/13	06/12/13	EAL	SW846 6010C ²	SW846 3050B ⁵
Barium	66.8	4.9	0.072	mg/kg	1	06/11/13	06/12/13	EAL	SW846 6010C ²	SW846 3050B ⁵
Beryllium	0.36 B	0.40	0.024	mg/kg	1	06/11/13	06/12/13	EAL	SW846 6010C ²	SW846 3050B ⁵
Cadmium	0.042 U	0.40	0.042	mg/kg	1	06/11/13	06/12/13	EAL	SW846 6010C ²	SW846 3050B ⁵
Calcium	69600	2500	31	mg/kg	5	06/11/13	06/13/13	EAL	SW846 6010C ³	SW846 3050B ⁵
Chromium	11.9	0.99	0.094	mg/kg	1	06/11/13	06/12/13	EAL	SW846 6010C ²	SW846 3050B ⁵
Cobalt	6.6	4.9	0.046	mg/kg	1	06/11/13	06/12/13	EAL	SW846 6010C ²	SW846 3050B ⁵
Copper	15.8	2.5	0.55	mg/kg	1	06/11/13	06/12/13	EAL	SW846 6010C ²	SW846 3050B ⁵
Iron	14600	9.9	0.86	mg/kg	1	06/11/13	06/12/13	EAL	SW846 6010C ²	SW846 3050B ⁵
Lead	5.5	0.99	0.17	mg/kg	1	06/11/13	06/12/13	EAL	SW846 6010C ²	SW846 3050B ⁵
Magnesium	28400	490	5.1	mg/kg	1	06/11/13	06/12/13	EAL	SW846 6010C ²	SW846 3050B ⁵
Manganese	371	1.5	0.040	mg/kg	1	06/11/13	06/12/13	EAL	SW846 6010C ²	SW846 3050B ⁵
Mercury	0.026 B	0.034	0.0097	mg/kg	1	06/07/13	06/07/13	SA	SW846 7471B ¹	SW846 7471B ⁴
Nickel	14.8	4.0	0.043	mg/kg	1	06/11/13	06/12/13	EAL	SW846 6010C ²	SW846 3050B ⁵
Potassium	2010	490	8.5	mg/kg	1	06/11/13	06/12/13	EAL	SW846 6010C ²	SW846 3050B ⁵
Selenium	0.34 U	0.99	0.34	mg/kg	1	06/11/13	06/12/13	EAL	SW846 6010C ²	SW846 3050B ⁵
Silver	0.12 U	0.49	0.12	mg/kg	1	06/11/13	06/12/13	EAL	SW846 6010C ²	SW846 3050B ⁵
Sodium	108 B	490	3.3	mg/kg	1	06/11/13	06/12/13	EAL	SW846 6010C ²	SW846 3050B ⁵
Thallium	0.13 U	0.99	0.13	mg/kg	1	06/11/13	06/12/13	EAL	SW846 6010C ²	SW846 3050B ⁵
Vanadium	13.7	0.99	0.13	mg/kg	1	06/11/13	06/12/13	EAL	SW846 6010C ²	SW846 3050B ⁵
Zinc	25.4	2.0	0.16	mg/kg	1	06/11/13	06/12/13	EAL	SW846 6010C ²	SW846 3050B ⁵

- (1) Instrument QC Batch: MA15719
- (2) Instrument QC Batch: MA15735
- (3) Instrument QC Batch: MA15744
- (4) Prep QC Batch: MP21134
- (5) Prep QC Batch: MP21154

RL = Reporting Limit
 MDL = Method Detection Limit

U = Indicates a result < MDL
 B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	TRIP BLANK	Date Sampled:	05/31/13
Lab Sample ID:	MC21383-26	Date Received:	06/01/13
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P69008.D	1	06/07/13	KD	n/a	n/a	MSP2262
Run #2							

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

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.33	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.6	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.59	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.62	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.48	ug/l	
75-00-3	Chloroethane	ND	2.0	0.84	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	1.4	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.45	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.29	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
100-42-5	Styrene	ND	5.0	0.49	ug/l	
79-34-5	1,1,1,2-Tetrachloroethane	ND	0.50	0.42	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: TRIP BLANK	
Lab Sample ID: MC21383-26	Date Sampled: 05/31/13
Matrix: AQ - Trip Blank Water	Date Received: 06/01/13
Method: SW846 8260B	Percent Solids: n/a
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		70-130%
2037-26-5	Toluene-D8	101%		70-130%
460-00-4	4-Bromofluorobenzene	99%		70-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID:	TRIP BLANK	Date Sampled:	05/31/13
Lab Sample ID:	MC21383-27	Date Received:	06/01/13
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P69009.D	1	06/07/13	KD	n/a	n/a	MSP2262
Run #2							

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

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.33	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.6	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.59	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.62	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.48	ug/l	
75-00-3	Chloroethane	ND	2.0	0.84	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	1.4	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.45	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.29	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
100-42-5	Styrene	ND	5.0	0.49	ug/l	
79-34-5	1,1,1,2-Tetrachloroethane	ND	0.50	0.42	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: TRIP BLANK	
Lab Sample ID: MC21383-27	Date Sampled: 05/31/13
Matrix: AQ - Trip Blank Water	Date Received: 06/01/13
Method: SW846 8260B	Percent Solids: n/a
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	110%		70-130%
2037-26-5	Toluene-D8	101%		70-130%
460-00-4	4-Bromofluorobenzene	101%		70-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Misc. Forms

5

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC21383 **Client:** BARTON & LOGUIDICE **Immediate Client Services Action Required:** No
Date / Time Received: 6/1/2013 **Delivery Method:** _____ **Client Service Action Required at Login:** No
Project: AUBURN EPA BROWNFIELD PH2 **No. Coolers:** 3 **Airbill #'s:** _____

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

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

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

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

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

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

Comments

5.1
5

Technical Report for

Barton & Loguidice

Auburn EPA Brownfield Phase II, Auburn, NY

554-046-001

Accutest Job Number: MC22017

Sampling Dates: 06/19/13 - 06/24/13

Report to:

Barton & Loguidice

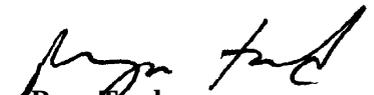
glesniak@bartonandloguidice.com

ATTN: Greg Lesniak

Total number of pages in report: **94**



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



Reza Fand
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) ISO 17025:2005 (L2235)

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Test results relate only to samples analyzed.

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Sample Summary

Barton & Loguidice

Job No: MC22017

Auburn EPA Brownfield Phase II, Auburn, NY
Project No: 554-046-001

Sample Number	Collected		Received	Matrix		Client Sample ID	
	Date	Time By		Code	Type		
MC22017-1	06/19/13	15:35 BJM	06/21/13	AQ	Ground Water	MW-1	41-55 Wash St
MC22017-2	06/20/13	10:53 BJM	06/21/13	AQ	Ground Water	MW-3	41-55 Wash St
MC22017-3	06/20/13	13:34 BJM	06/21/13	AQ	Ground Water	MW-2	41-55 Wash St
MC22017-4	06/20/13	00:00 BJM	06/21/13	AQ	Ground Water	DUPE-X	41-55 Wash St
MC22017-5	06/19/13	14:02 BJM	06/21/13	AQ	Field Blank Water	FIELD BLANK	41-55 Wash St
MC22017-6	06/20/13	09:07 BJM	06/21/13	AQ	Field Blank Water	FIELD BLANK	41-55 Wash St
MC22017-7	06/20/13	00:00 BJM	06/21/13	AQ	Trip Blank Water	TRIP BLANK	
MC22017-8	06/20/13	16:20 BJM	06/25/13	AQ	Ground Water	MW-1	42 Wadsworth
MC22017-8D	06/20/13	16:20 BJM	06/25/13	AQ	Water Dup/MSD	MW-1	42 Wadsworth
MC22017-8S	06/20/13	16:20 BJM	06/25/13	AQ	Water Matrix Spike	MW-1	42 Wadsworth
MC22017-9	06/21/13	10:04 BJM	06/25/13	AQ	Field Blank Water	FIELD BLANK	42 Wadsworth
MC22017-10	06/21/13	11:15 BJM	06/25/13	AQ	Ground Water	MW-2	42 Wadsworth
MC22017-11	06/21/13	13:56 BJM	06/25/13	AQ	Ground Water	MW-3	42 Wadsworth



Sample Summary (continued)

Barton & Loguidice

Job No: MC22017

**Auburn EPA Brownfield Phase II, Auburn, NY
Project No: 554-046-001**

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
MC22017-12	06/21/13	17:00 BJM	06/25/13	AQ	Ground Water	MW-4 2-38 Wadsworth
MC22017-13	06/21/13	00:00 BJM	06/25/13	AQ	Trip Blank Water	TRIP BLANK
MC22017-14	06/24/13	10:40 BJM	06/25/13	AQ	Ground Water	MW-3 2-38 Wadsworth
MC22017-15	06/24/13	11:56 BJM	06/25/13	AQ	Ground Water	MW-2 2-38 Wadsworth
MC22017-16	06/24/13	12:45 BJM	06/25/13	AQ	Ground Water	MW-1 2-38 Wadsworth
MC22017-17	06/24/13	14:12 BJM	06/25/13	AQ	Ground Water	MW-3 1-15 Pulaski
MC22017-18	06/24/13	15:00 BJM	06/25/13	AQ	Ground Water	MW-2 1-15 Pulaski
MC22017-19	06/24/13	15:40 BJM	06/25/13	AQ	Ground Water	MW-1 1-15 Pulaski
MC22017-20	06/24/13	14:40 BJM	06/25/13	AQ	Field Blank Water	FIELD BLANK 1-15 Pulaski

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Barton & Loguidice

Job No MC22017

Site: Auburn EPA Brownfield Phase II, Auburn, NY

Report Date 7/22/2013 12:27:25 PM

14 Sample(s), 2 Trip Blank(s) and 4 Field Blank(s) were collected on between 06/19/2013 and 06/24/2013 and were received at Accutest between 06/21/2013 and 06/25/2013 properly preserved, at 0.9 Deg. C and intact. These Samples received an Accutest job number of MC22017. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

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

Volatiles by GCMS By Method SW846 8260B

Matrix: AQ

Batch ID: MSL3502

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC22017-8MS, MC22017-8MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Matrix: AQ

Batch ID: MSL3503

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC22011-3MS, MC22011-3MSD were used as the QC samples indicated.
- MC22011-3MS for Methyl Tert Butyl Ether are outside control limits due to possible matrix interference. Refer to Blank Spike.
- MC22011-3MSD for Isopropylbenzene, n-Propylbenzene, o-Xylene, p-Isopropyltoluene, sec-Butylbenzene are outside control limits due to possible matrix interference. Refer to Blank Spike.
- RPD(s) for MC22011-3MSD for all reported compounds are outside control limits. High RPD due to possible matrix interference and/or sample non-homogeneity.

Matrix: AQ

Batch ID: MSL3506

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC22178-4MS, MC22178-4MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- MSL3506-BS for 2-Butanone (MEK) are outside control limits. Blank Spike meets program technical requirements.
- MC22178-4MS for 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, 2-Butanone (MEK), 2-Hexanone, Acetone, Bromomethane, m,p-Xylene, Methyl Tert Butyl Ether, Naphthalene, o-Xylene, p-Isopropyltoluene, Styrene, tert-Butylbenzene, Vinyl chloride, Xylene (total) are outside control limits due to possible matrix interference. Refer to Blank Spike.
- MC22178-4MSD for 1,1,2,2-Tetrachloroethane, 1,3,5-Trimethylbenzene, Acetone, Tetrachloroethene, 1,2,4-Trimethylbenzene, m,p-Xylene, Naphthalene, Styrene, tert-Butylbenzene, Xylene (total) are outside control limits due to possible matrix interference. Refer to Blank Spike.
- RPD(s) for MC22178-4MSD for 1,2,4-Trimethylbenzene, 2-Hexanone, Bromomethane, m,p-Xylene, Naphthalene, o-Xylene, p-Isopropyltoluene, Styrene, tert-Butylbenzene, Vinyl chloride, Xylene (total) are outside control limits. High RPD due to possible matrix interference and/or sample non-homogeneity.
- MSL3506-BS/BSD for Acetone are outside control limits. Blank Spike meets program technical requirements.

Matrix: AQ

Batch ID: MSP2298

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC22017-15MS, MC22017-15MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Extractables by GCMS By Method SW846 8270C

Matrix: AQ**Batch ID:** OP33744

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC22106-4MS, MC22106-4MSD were used as the QC samples indicated.

Matrix: AQ**Batch ID:** OP33768

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC22017-8MS, MC22017-8MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- MC22017-10 for 2-Fluorobiphenyl: Outside control limits. Associated target analytes are non-detect.
- MC22017-9, -10 for Nitrobenzene-d5: Outside control limits. Associated target analytes are non-detect.
- MC22017-9, -10 for Terphenyl-d14: Outside control limits. Associated target analytes are non-detect.

Matrix: AQ**Batch ID:** OP33811

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC22000-10MS, MC22000-10MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Extractables by GC By Method SW846 8082

Matrix: AQ**Batch ID:** OP33741

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC22106-2MS, MC22106-2MSD, OP33741-MSMSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Matrix: AQ**Batch ID:** OP33775

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC22017-8MS, MC22017-8MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Continuing calibration check standard GYZ7207-CC7205, file #YZ81886A, YZ81894, GYZ7207-ECC7205 for DCB exceeds criteria. Targets recovery satisfactory.

Metals By Method SW846 6010C

Matrix: AQ

Batch ID: MP21237

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC22017-4MS, MC22017-4MSD, MC22017-4SDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Aluminum, Antimony, Cadmium, Chromium, Copper, Nickel, Potassium are outside control limits for sample MP21237-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

Matrix: AQ

Batch ID: MP21255

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC22017-8MS, MC22017-8MSD, MC22017-8SDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Chromium, Cobalt, Copper, Nickel, Vanadium, Zinc are outside control limits for sample MP21255-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

Metals By Method SW846 7470A

Matrix: AQ

Batch ID: MP21234

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC22017-3MS, MC22017-3MSD were used as the QC samples for metals.

Matrix: AQ

Batch ID: MP21274

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC22017-8MS, MC22017-8MSD were used as the QC samples for metals.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety. The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(MC22017).

Summary of Hits

Job Number: MC22017
Account: Barton & Loguidice
Project: Auburn EPA Brownfield Phase II, Auburn, NY
Collected: 06/19/13 thru 06/24/13



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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MC22017-1 MW-1

Aluminum	1090	200	40	ug/l	SW846 6010C
Barium	74.9	50	0.81	ug/l	SW846 6010C
Calcium	115000	5000	38	ug/l	SW846 6010C
Chromium	2.5 B	10	1.4	ug/l	SW846 6010C
Cobalt	1.0 B	50	0.40	ug/l	SW846 6010C
Iron	888	100	20	ug/l	SW846 6010C
Magnesium	27100	5000	59	ug/l	SW846 6010C
Manganese	51.6	15	0.81	ug/l	SW846 6010C
Nickel	2.0 B	40	0.57	ug/l	SW846 6010C
Potassium	6840	5000	160	ug/l	SW846 6010C
Sodium	116000	5000	60	ug/l	SW846 6010C
Zinc	3.9 B	20	0.50	ug/l	SW846 6010C

MC22017-2 MW-3

Benzene	9.0	0.50	0.45	ug/l	SW846 8260B
Aluminum	1310	200	40	ug/l	SW846 6010C
Barium	55.2	50	0.81	ug/l	SW846 6010C
Calcium	109000	5000	38	ug/l	SW846 6010C
Chromium	4.9 B	10	1.4	ug/l	SW846 6010C
Cobalt	1.9 B	50	0.40	ug/l	SW846 6010C
Copper	7.6 B	25	7.0	ug/l	SW846 6010C
Iron	1670	100	20	ug/l	SW846 6010C
Lead	2.7 B	5.0	1.7	ug/l	SW846 6010C
Magnesium	36700	5000	59	ug/l	SW846 6010C
Manganese	252	15	0.81	ug/l	SW846 6010C
Mercury	0.073 B	0.20	0.067	ug/l	SW846 7470A
Nickel	5.9 B	40	0.57	ug/l	SW846 6010C
Potassium	11900	5000	160	ug/l	SW846 6010C
Sodium	15900	5000	60	ug/l	SW846 6010C
Vanadium	4.0 B	10	2.8	ug/l	SW846 6010C
Zinc	15.5 B	20	0.50	ug/l	SW846 6010C

MC22017-3 MW-2

Aluminum	346	200	40	ug/l	SW846 6010C
Antimony	2.9 B	6.0	1.9	ug/l	SW846 6010C
Barium	107	50	0.81	ug/l	SW846 6010C
Calcium	44700	5000	38	ug/l	SW846 6010C
Chromium	3.0 B	10	1.4	ug/l	SW846 6010C
Copper	22.2 B	25	7.0	ug/l	SW846 6010C
Iron	834	100	20	ug/l	SW846 6010C
Lead	61.1	5.0	1.7	ug/l	SW846 6010C

Summary of Hits

Job Number: MC22017
Account: Barton & Loguidice
Project: Auburn EPA Brownfield Phase II, Auburn, NY
Collected: 06/19/13 thru 06/24/13



Lab Sample ID	Client Sample ID	Result/ Analyte	RL	MDL	Units	Method
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		Magnesium	9680	5000	59	ug/l	SW846 6010C
		Manganese	16.8	15	0.81	ug/l	SW846 6010C
		Nickel	2.1 B	40	0.57	ug/l	SW846 6010C
		Potassium	2290 B	5000	160	ug/l	SW846 6010C
		Sodium	14300	5000	60	ug/l	SW846 6010C
		Zinc	109	20	0.50	ug/l	SW846 6010C

MC22017-4 DUPE-X

		Fluoranthene	0.29 J	2.0	0.23	ug/l	SW846 8270C
		Phenanthrene	0.27 J	2.0	0.21	ug/l	SW846 8270C
		Pyrene	0.30 J	2.0	0.23	ug/l	SW846 8270C
		Aluminum	307	200	40	ug/l	SW846 6010C
		Antimony	3.4 B	6.0	1.9	ug/l	SW846 6010C
		Barium	108	50	0.81	ug/l	SW846 6010C
		Calcium	44500	5000	38	ug/l	SW846 6010C
		Chromium	2.0 B	10	1.4	ug/l	SW846 6010C
		Copper	22.0 B	25	7.0	ug/l	SW846 6010C
		Iron	787	100	20	ug/l	SW846 6010C
		Lead	59.9	5.0	1.7	ug/l	SW846 6010C
		Magnesium	9760	5000	59	ug/l	SW846 6010C
		Manganese	16.6	15	0.81	ug/l	SW846 6010C
		Mercury	0.28	0.20	0.067	ug/l	SW846 7470A
		Nickel	2.1 B	40	0.57	ug/l	SW846 6010C
		Potassium	2350 B	5000	160	ug/l	SW846 6010C
		Sodium	14200	5000	60	ug/l	SW846 6010C
		Zinc	110	20	0.50	ug/l	SW846 6010C

MC22017-5 FIELD BLANK

No hits reported in this sample.

MC22017-6 FIELD BLANK

No hits reported in this sample.

MC22017-7 TRIP BLANK

No hits reported in this sample.

MC22017-8 MW-1

		Aluminum	2860	200	40	ug/l	SW846 6010C
		Barium	993	50	0.81	ug/l	SW846 6010C
		Calcium	87100	5000	38	ug/l	SW846 6010C

Summary of Hits

Job Number: MC22017
Account: Barton & Loguidice
Project: Auburn EPA Brownfield Phase II, Auburn, NY
Collected: 06/19/13 thru 06/24/13



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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Chromium		2.9 B	10	1.4	ug/l	SW846 6010C
Cobalt		0.50 B	50	0.40	ug/l	SW846 6010C
Iron		2420	100	20	ug/l	SW846 6010C
Magnesium		32200	5000	59	ug/l	SW846 6010C
Manganese		55.0	15	0.81	ug/l	SW846 6010C
Nickel		1.8 B	40	0.57	ug/l	SW846 6010C
Potassium		3130 B	5000	160	ug/l	SW846 6010C
Sodium		12100	5000	60	ug/l	SW846 6010C
Vanadium		4.4 B	10	2.8	ug/l	SW846 6010C
Zinc		5.4 B	20	0.50	ug/l	SW846 6010C

MC22017-9 FIELD BLANK

Calcium		127 B	5000	38	ug/l	SW846 6010C
Chromium		2.2 B	10	1.4	ug/l	SW846 6010C
Nickel		1.0 B	40	0.57	ug/l	SW846 6010C
Sodium		137 B	5000	60	ug/l	SW846 6010C
Zinc		4.9 B	20	0.50	ug/l	SW846 6010C

MC22017-10 MW-2

Aluminum		3720	200	40	ug/l	SW846 6010C
Barium		114	50	0.81	ug/l	SW846 6010C
Calcium		186000	5000	38	ug/l	SW846 6010C
Chromium		10.2	10	1.4	ug/l	SW846 6010C
Cobalt		2.9 B	50	0.40	ug/l	SW846 6010C
Copper		7.6 B	25	7.0	ug/l	SW846 6010C
Iron		12000	100	20	ug/l	SW846 6010C
Magnesium		43300	5000	59	ug/l	SW846 6010C
Manganese		693	15	0.81	ug/l	SW846 6010C
Nickel		21.7 B	40	0.57	ug/l	SW846 6010C
Potassium		9810	5000	160	ug/l	SW846 6010C
Sodium		11500	5000	60	ug/l	SW846 6010C
Vanadium		11.9	10	2.8	ug/l	SW846 6010C
Zinc		14.7 B	20	0.50	ug/l	SW846 6010C

MC22017-11 MW-3

Aluminum		6790	200	40	ug/l	SW846 6010C
Arsenic		3.3 B	4.0	2.9	ug/l	SW846 6010C
Barium		82.1	50	0.81	ug/l	SW846 6010C
Calcium		146000	5000	38	ug/l	SW846 6010C
Chromium		7.7 B	10	1.4	ug/l	SW846 6010C
Cobalt		2.5 B	50	0.40	ug/l	SW846 6010C
Iron		5450	100	20	ug/l	SW846 6010C

Summary of Hits

Job Number: MC22017
Account: Barton & Loguidice
Project: Auburn EPA Brownfield Phase II, Auburn, NY
Collected: 06/19/13 thru 06/24/13



Lab Sample ID	Client Sample ID	Result/ Analyte	RL	MDL	Units	Method	
		Magnesium	50400	5000	59	ug/l	SW846 6010C
		Manganese	560	15	0.81	ug/l	SW846 6010C
		Nickel	6.8 B	40	0.57	ug/l	SW846 6010C
		Potassium	5960	5000	160	ug/l	SW846 6010C
		Sodium	51500	5000	60	ug/l	SW846 6010C
		Vanadium	10.3	10	2.8	ug/l	SW846 6010C
		Zinc	11.4 B	20	0.50	ug/l	SW846 6010C
MC22017-12 MW-4							
		Aluminum	671	200	40	ug/l	SW846 6010C
		Arsenic	2.9 B	4.0	2.9	ug/l	SW846 6010C
		Barium	63.4	50	0.81	ug/l	SW846 6010C
		Calcium	90400	5000	38	ug/l	SW846 6010C
		Iron	773	100	20	ug/l	SW846 6010C
		Magnesium	37200	5000	59	ug/l	SW846 6010C
		Manganese	84.3	15	0.81	ug/l	SW846 6010C
		Nickel	3.2 B	40	0.57	ug/l	SW846 6010C
		Potassium	4470 B	5000	160	ug/l	SW846 6010C
		Sodium	142000	5000	60	ug/l	SW846 6010C
		Vanadium	3.0 B	10	2.8	ug/l	SW846 6010C
		Zinc	3.7 B	20	0.50	ug/l	SW846 6010C
MC22017-13 TRIP BLANK							
No hits reported in this sample.							
MC22017-14 MW-3							
		Naphthalene	0.38 J	2.0	0.17	ug/l	SW846 8270C
		Aluminum	322	200	40	ug/l	SW846 6010C
		Barium	97.0	50	0.81	ug/l	SW846 6010C
		Calcium	64800	5000	38	ug/l	SW846 6010C
		Iron	2790	100	20	ug/l	SW846 6010C
		Lead	2.7 B	5.0	1.7	ug/l	SW846 6010C
		Magnesium	18000	5000	59	ug/l	SW846 6010C
		Manganese	121	15	0.81	ug/l	SW846 6010C
		Nickel	1.0 B	40	0.57	ug/l	SW846 6010C
		Potassium	1610 B	5000	160	ug/l	SW846 6010C
		Sodium	191000	5000	60	ug/l	SW846 6010C
		Zinc	4.6 B	20	0.50	ug/l	SW846 6010C
MC22017-15 MW-2							
		n-Butylbenzene	1.2 J	5.0	0.54	ug/l	SW846 8260B

Summary of Hits

Job Number: MC22017
 Account: Barton & Loguidice
 Project: Auburn EPA Brownfield Phase II, Auburn, NY
 Collected: 06/19/13 thru 06/24/13



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method	
		Naphthalene	10.4	5.0	0.79	ug/l	SW846 8260B
		n-Propylbenzene	0.90 J	5.0	0.59	ug/l	SW846 8260B
		1,2,4-Trimethylbenzene	0.50 J	5.0	0.47	ug/l	SW846 8260B
		Acenaphthene	0.95 J	2.1	0.24	ug/l	SW846 8270C
		Anthracene	0.82 J	2.1	0.22	ug/l	SW846 8270C
		Benzo(a)anthracene	0.40 J	2.1	0.22	ug/l	SW846 8270C
		Chrysene	0.46 J	2.1	0.21	ug/l	SW846 8270C
		Fluoranthene	0.53 J	2.1	0.24	ug/l	SW846 8270C
		Fluorene	1.8 J	2.1	0.25	ug/l	SW846 8270C
		Phenanthrene	1.4 J	2.1	0.22	ug/l	SW846 8270C
		Pyrene	1.6 J	2.1	0.24	ug/l	SW846 8270C
		Aluminum	5130	200	40	ug/l	SW846 6010C
		Antimony	2.3 B	6.0	1.9	ug/l	SW846 6010C
		Arsenic	9.7	4.0	2.9	ug/l	SW846 6010C
		Barium	107	50	0.81	ug/l	SW846 6010C
		Calcium	114000	5000	38	ug/l	SW846 6010C
		Chromium	26.3	10	1.4	ug/l	SW846 6010C
		Cobalt	3.6 B	50	0.40	ug/l	SW846 6010C
		Copper	30.4	25	7.0	ug/l	SW846 6010C
		Iron	16000	100	20	ug/l	SW846 6010C
		Lead	71.6	5.0	1.7	ug/l	SW846 6010C
		Magnesium	30900	5000	59	ug/l	SW846 6010C
		Manganese	251	15	0.81	ug/l	SW846 6010C
		Mercury	0.42	0.20	0.067	ug/l	SW846 7470A
		Nickel	11.0 B	40	0.57	ug/l	SW846 6010C
		Potassium	7270	5000	160	ug/l	SW846 6010C
		Sodium	39500	5000	60	ug/l	SW846 6010C
		Vanadium	9.8 B	10	2.8	ug/l	SW846 6010C
		Zinc	64.1	20	0.50	ug/l	SW846 6010C

MC22017-16 MW-1

		Benzo(a)anthracene	0.27 J	2.3	0.25	ug/l	SW846 8270C
		Chrysene	0.32 J	2.3	0.23	ug/l	SW846 8270C
		Fluoranthene	0.30 J	2.3	0.26	ug/l	SW846 8270C
		Pyrene	1.2 J	2.3	0.26	ug/l	SW846 8270C
		Aluminum	1510	200	40	ug/l	SW846 6010C
		Barium	245	50	0.81	ug/l	SW846 6010C
		Calcium	80700	5000	38	ug/l	SW846 6010C
		Chromium	3.3 B	10	1.4	ug/l	SW846 6010C
		Cobalt	0.50 B	50	0.40	ug/l	SW846 6010C
		Copper	7.0 B	25	7.0	ug/l	SW846 6010C
		Iron	2150	100	20	ug/l	SW846 6010C
		Lead	14.8	5.0	1.7	ug/l	SW846 6010C
		Magnesium	14600	5000	59	ug/l	SW846 6010C

Summary of Hits

Job Number: MC22017
 Account: Barton & Loguidice
 Project: Auburn EPA Brownfield Phase II, Auburn, NY
 Collected: 06/19/13 thru 06/24/13



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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Manganese		38.0	15	0.81	ug/l	SW846 6010C
Nickel		51.6	40	0.57	ug/l	SW846 6010C
Potassium		2490 B	5000	160	ug/l	SW846 6010C
Sodium		62000	5000	60	ug/l	SW846 6010C
Vanadium		3.1 B	10	2.8	ug/l	SW846 6010C
Zinc		36.1	20	0.50	ug/l	SW846 6010C

MC22017-17 MW-3

Toluene		0.47 J	1.0	0.46	ug/l	SW846 8260B
Naphthalene		0.24 J	2.2	0.18	ug/l	SW846 8270C
Phenanthrene		0.26 J	2.2	0.22	ug/l	SW846 8270C
Barium		49.2 B	50	0.81	ug/l	SW846 6010C
Calcium		208000	5000	38	ug/l	SW846 6010C
Chromium		4.9 B	10	1.4	ug/l	SW846 6010C
Cobalt		1.1 B	50	0.40	ug/l	SW846 6010C
Iron		29500	100	20	ug/l	SW846 6010C
Lead		4.5 B	5.0	1.7	ug/l	SW846 6010C
Magnesium		30400	5000	59	ug/l	SW846 6010C
Manganese		682	15	0.81	ug/l	SW846 6010C
Nickel		31.3 B	40	0.57	ug/l	SW846 6010C
Potassium		7000	5000	160	ug/l	SW846 6010C
Sodium		20700	5000	60	ug/l	SW846 6010C
Zinc		17.8 B	20	0.50	ug/l	SW846 6010C

MC22017-18 MW-2

Acenaphthene		1.2 J	2.1	0.24	ug/l	SW846 8270C
Anthracene		0.38 J	2.1	0.22	ug/l	SW846 8270C
Fluoranthene		0.31 J	2.1	0.23	ug/l	SW846 8270C
Fluorene		1.4 J	2.1	0.25	ug/l	SW846 8270C
Naphthalene		0.54 J	2.1	0.18	ug/l	SW846 8270C
Phenanthrene		2.0 J	2.1	0.22	ug/l	SW846 8270C
Barium		21.2 B	50	0.81	ug/l	SW846 6010C
Calcium		349000	5000	38	ug/l	SW846 6010C
Cobalt		2.6 B	50	0.40	ug/l	SW846 6010C
Iron		112000	100	20	ug/l	SW846 6010C
Lead		4.4 B	5.0	1.7	ug/l	SW846 6010C
Magnesium		46200	5000	59	ug/l	SW846 6010C
Manganese		2430	15	0.81	ug/l	SW846 6010C
Mercury		0.10 B	0.20	0.067	ug/l	SW846 7470A
Nickel		4.9 B	40	0.57	ug/l	SW846 6010C
Potassium		8460	5000	160	ug/l	SW846 6010C
Sodium		19200	5000	60	ug/l	SW846 6010C
Zinc		8.0 B	20	0.50	ug/l	SW846 6010C

Summary of Hits

Job Number: MC22017
Account: Barton & Loguidice
Project: Auburn EPA Brownfield Phase II, Auburn, NY
Collected: 06/19/13 thru 06/24/13



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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MC22017-19 MW-1

Acetone	8.2 J	10	2.8	ug/l	SW846 8260B
Acenaphthene	0.54 J	2.3	0.27	ug/l	SW846 8270C
Anthracene	0.24 J	2.3	0.24	ug/l	SW846 8270C
Fluorene	0.42 J	2.3	0.28	ug/l	SW846 8270C
Naphthalene	0.21 J	2.3	0.20	ug/l	SW846 8270C
Phenanthrene	1.3 J	2.3	0.24	ug/l	SW846 8270C
Barium	61.5	50	0.81	ug/l	SW846 6010C
Calcium	163000	5000	38	ug/l	SW846 6010C
Iron	7090	100	20	ug/l	SW846 6010C
Lead	8.6	5.0	1.7	ug/l	SW846 6010C
Magnesium	21000	5000	59	ug/l	SW846 6010C
Manganese	684	15	0.81	ug/l	SW846 6010C
Nickel	0.80 B	40	0.57	ug/l	SW846 6010C
Potassium	3810 B	5000	160	ug/l	SW846 6010C
Sodium	17700	5000	60	ug/l	SW846 6010C
Zinc	29.7	20	0.50	ug/l	SW846 6010C

MC22017-20 FIELD BLANK

No hits reported in this sample.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: MW-1		
Lab Sample ID: MC22017-1		Date Sampled: 06/19/13
Matrix: AQ - Ground Water		Date Received: 06/21/13
Method: SW846 8260B		Percent Solids: n/a
Project: Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L75239.D	1	07/03/13	KR	n/a	n/a	MSL3503
Run #2							

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

VOA STARS List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.45	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		70-130%
2037-26-5	Toluene-D8	109%		70-130%
460-00-4	4-Bromofluorobenzene	121%		70-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.1
 4

Report of Analysis

Client Sample ID: MW-1		
Lab Sample ID: MC22017-1		Date Sampled: 06/19/13
Matrix: AQ - Ground Water		Date Received: 06/21/13
Method: SW846 8270C SW846 3510C		Percent Solids: n/a
Project: Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F65379.D	1	07/02/13	KR	06/24/13	OP33744	MSF3032
Run #2							

Run #	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

BN STARS List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	2.1	0.24	ug/l	
208-96-8	Acenaphthylene	ND	2.1	0.59	ug/l	
120-12-7	Anthracene	ND	2.1	0.22	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.1	0.22	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.1	0.22	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.1	0.24	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.1	0.27	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.1	0.28	ug/l	
218-01-9	Chrysene	ND	2.1	0.21	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.1	0.22	ug/l	
206-44-0	Fluoranthene	ND	2.1	0.23	ug/l	
86-73-7	Fluorene	ND	2.1	0.25	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.1	0.29	ug/l	
91-20-3	Naphthalene	ND	2.1	0.18	ug/l	
85-01-8	Phenanthrene	ND	2.1	0.22	ug/l	
129-00-0	Pyrene	ND	2.1	0.23	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	83%		30-130%
321-60-8	2-Fluorobiphenyl	83%		30-130%
1718-51-0	Terphenyl-d14	91%		30-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.1
 4

Report of Analysis

Client Sample ID: MW-1 Lab Sample ID: MC22017-1 Matrix: AQ - Ground Water Method: SW846 8082 SW846 3510C Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 06/19/13 Date Received: 06/21/13 Percent Solids: n/a
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ81895.D	1	07/02/13	CZ	06/24/13	OP33741	GYZ7207
Run #2							

Run #	Initial Volume	Final Volume
Run #1	900 ml	5.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.28	0.076	ug/l	
11104-28-2	Aroclor 1221	ND	0.28	0.080	ug/l	
11141-16-5	Aroclor 1232	ND	0.28	0.18	ug/l	
53469-21-9	Aroclor 1242	ND	0.28	0.11	ug/l	
12672-29-6	Aroclor 1248	ND	0.28	0.17	ug/l	
11097-69-1	Aroclor 1254	ND	0.28	0.081	ug/l	
11096-82-5	Aroclor 1260	ND	0.28	0.069	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	73%		30-150%
877-09-8	Tetrachloro-m-xylene	79%		30-150%
2051-24-3	Decachlorobiphenyl	56%		30-150%
2051-24-3	Decachlorobiphenyl	58%		30-150%

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

4.1
4

Report of Analysis

Client Sample ID: MW-1	Date Sampled: 06/19/13
Lab Sample ID: MC22017-1	Date Received: 06/21/13
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	1090	200	40	ug/l	1	06/25/13	06/25/13 EAL	SW846 6010C ²	SW846 3010A ⁴
Antimony	1.9 U	6.0	1.9	ug/l	1	06/25/13	06/25/13 EAL	SW846 6010C ²	SW846 3010A ⁴
Arsenic	2.9 U	4.0	2.9	ug/l	1	06/25/13	06/25/13 EAL	SW846 6010C ²	SW846 3010A ⁴
Barium	74.9	50	0.81	ug/l	1	06/25/13	06/25/13 EAL	SW846 6010C ²	SW846 3010A ⁴
Beryllium	0.25 U	4.0	0.25	ug/l	1	06/25/13	06/25/13 EAL	SW846 6010C ²	SW846 3010A ⁴
Cadmium	0.50 U	4.0	0.50	ug/l	1	06/25/13	06/25/13 EAL	SW846 6010C ²	SW846 3010A ⁴
Calcium	115000	5000	38	ug/l	1	06/25/13	06/25/13 EAL	SW846 6010C ²	SW846 3010A ⁴
Chromium	2.5 B	10	1.4	ug/l	1	06/25/13	06/25/13 EAL	SW846 6010C ²	SW846 3010A ⁴
Cobalt	1.0 B	50	0.40	ug/l	1	06/25/13	06/25/13 EAL	SW846 6010C ²	SW846 3010A ⁴
Copper	7.0 U	25	7.0	ug/l	1	06/25/13	06/25/13 EAL	SW846 6010C ²	SW846 3010A ⁴
Iron	888	100	20	ug/l	1	06/25/13	06/25/13 EAL	SW846 6010C ²	SW846 3010A ⁴
Lead	1.7 U	5.0	1.7	ug/l	1	06/25/13	06/25/13 EAL	SW846 6010C ²	SW846 3010A ⁴
Magnesium	27100	5000	59	ug/l	1	06/25/13	06/25/13 EAL	SW846 6010C ²	SW846 3010A ⁴
Manganese	51.6	15	0.81	ug/l	1	06/25/13	06/25/13 EAL	SW846 6010C ²	SW846 3010A ⁴
Mercury	0.067 U	0.20	0.067	ug/l	1	06/24/13	06/25/13 SA	SW846 7470A ¹	SW846 7470A ³
Nickel	2.0 B	40	0.57	ug/l	1	06/25/13	06/25/13 EAL	SW846 6010C ²	SW846 3010A ⁴
Potassium	6840	5000	160	ug/l	1	06/25/13	06/25/13 EAL	SW846 6010C ²	SW846 3010A ⁴
Selenium	4.8 U	10	4.8	ug/l	1	06/25/13	06/25/13 EAL	SW846 6010C ²	SW846 3010A ⁴
Silver	1.0 U	5.0	1.0	ug/l	1	06/25/13	06/25/13 EAL	SW846 6010C ²	SW846 3010A ⁴
Sodium	116000	5000	60	ug/l	1	06/25/13	06/25/13 EAL	SW846 6010C ²	SW846 3010A ⁴
Thallium	1.9 U	5.0	1.9	ug/l	1	06/25/13	06/25/13 EAL	SW846 6010C ²	SW846 3010A ⁴
Vanadium	2.8 U	10	2.8	ug/l	1	06/25/13	06/25/13 EAL	SW846 6010C ²	SW846 3010A ⁴
Zinc	3.9 B	20	0.50	ug/l	1	06/25/13	06/25/13 EAL	SW846 6010C ²	SW846 3010A ⁴

(1) Instrument QC Batch: MA15787

(2) Instrument QC Batch: MA15798

(3) Prep QC Batch: MP21234

(4) Prep QC Batch: MP21237

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: MW-3 Lab Sample ID: MC22017-2 Matrix: AQ - Ground Water Method: SW846 8260B Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 06/20/13 Date Received: 06/21/13 Percent Solids: n/a
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L75222.D	1	07/03/13	KR	n/a	n/a	MSL3502
Run #2							

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

VOA STARS List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	9.0	0.50	0.45	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		70-130%
2037-26-5	Toluene-D8	109%		70-130%
460-00-4	4-Bromofluorobenzene	116%		70-130%

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

4.2
4

Report of Analysis

Client Sample ID: MW-3		
Lab Sample ID: MC22017-2		Date Sampled: 06/20/13
Matrix: AQ - Ground Water		Date Received: 06/21/13
Method: SW846 8270C SW846 3510C		Percent Solids: n/a
Project: Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F65380.D	1	07/02/13	KR	06/24/13	OP33744	MSF3032
Run #2							

Run #	Initial Volume	Final Volume
Run #1	890 ml	1.0 ml
Run #2		

BN STARS List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	2.2	0.26	ug/l	
208-96-8	Acenaphthylene	ND	2.2	0.63	ug/l	
120-12-7	Anthracene	ND	2.2	0.23	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.2	0.24	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.2	0.24	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.2	0.26	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.2	0.29	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.2	0.30	ug/l	
218-01-9	Chrysene	ND	2.2	0.23	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.2	0.24	ug/l	
206-44-0	Fluoranthene	ND	2.2	0.25	ug/l	
86-73-7	Fluorene	ND	2.2	0.27	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.2	0.31	ug/l	
91-20-3	Naphthalene	ND	2.2	0.19	ug/l	
85-01-8	Phenanthrene	ND	2.2	0.23	ug/l	
129-00-0	Pyrene	ND	2.2	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	66%		30-130%
321-60-8	2-Fluorobiphenyl	63%		30-130%
1718-51-0	Terphenyl-d14	62%		30-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.2
 4

Report of Analysis

Client Sample ID: MW-3 Lab Sample ID: MC22017-2 Matrix: AQ - Ground Water Method: SW846 8082 SW846 3510C Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 06/20/13 Date Received: 06/21/13 Percent Solids: n/a
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ81896.D	1	07/02/13	CZ	06/24/13	OP33741	GYZ7207
Run #2							

Run #	Initial Volume	Final Volume
Run #1	890 ml	5.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.28	0.077	ug/l	
11104-28-2	Aroclor 1221	ND	0.28	0.081	ug/l	
11141-16-5	Aroclor 1232	ND	0.28	0.19	ug/l	
53469-21-9	Aroclor 1242	ND	0.28	0.11	ug/l	
12672-29-6	Aroclor 1248	ND	0.28	0.17	ug/l	
11097-69-1	Aroclor 1254	ND	0.28	0.082	ug/l	
11096-82-5	Aroclor 1260	ND	0.28	0.070	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	83%		30-150%
877-09-8	Tetrachloro-m-xylene	95%		30-150%
2051-24-3	Decachlorobiphenyl	63%		30-150%
2051-24-3	Decachlorobiphenyl	64%		30-150%

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

4.2
4

Report of Analysis

Client Sample ID: MW-3	Date Sampled: 06/20/13
Lab Sample ID: MC22017-2	Date Received: 06/21/13
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	1310	200	40	ug/l	1	06/25/13	06/27/13	EAL SW846 6010C ³	SW846 3010A ⁵
Antimony	1.9 U	6.0	1.9	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁵
Arsenic	2.9 U	4.0	2.9	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁵
Barium	55.2	50	0.81	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁵
Beryllium	0.25 U	4.0	0.25	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁵
Cadmium	0.50 U	4.0	0.50	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁵
Calcium	109000	5000	38	ug/l	1	06/25/13	06/27/13	EAL SW846 6010C ³	SW846 3010A ⁵
Chromium	4.9 B	10	1.4	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁵
Cobalt	1.9 B	50	0.40	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁵
Copper	7.6 B	25	7.0	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁵
Iron	1670	100	20	ug/l	1	06/25/13	06/27/13	EAL SW846 6010C ³	SW846 3010A ⁵
Lead	2.7 B	5.0	1.7	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁵
Magnesium	36700	5000	59	ug/l	1	06/25/13	06/27/13	EAL SW846 6010C ³	SW846 3010A ⁵
Manganese	252	15	0.81	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁵
Mercury	0.073 B	0.20	0.067	ug/l	1	06/24/13	06/25/13	SA SW846 7470A ¹	SW846 7470A ⁴
Nickel	5.9 B	40	0.57	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁵
Potassium	11900	5000	160	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁵
Selenium	4.8 U	10	4.8	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁵
Silver	1.0 U	5.0	1.0	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁵
Sodium	15900	5000	60	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁵
Thallium	1.9 U	5.0	1.9	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁵
Vanadium	4.0 B	10	2.8	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁵
Zinc	15.5 B	20	0.50	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁵

- (1) Instrument QC Batch: MA15787
- (2) Instrument QC Batch: MA15798
- (3) Instrument QC Batch: MA15805
- (4) Prep QC Batch: MP21234
- (5) Prep QC Batch: MP21237

RL = Reporting Limit
 MDL = Method Detection Limit

U = Indicates a result < MDL
 B = Indicates a result > = MDL but < RL

4.2
 4

Report of Analysis

Client Sample ID: MW-2 Lab Sample ID: MC22017-3 Matrix: AQ - Ground Water Method: SW846 8260B Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 06/20/13 Date Received: 06/21/13 Percent Solids: n/a
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L75223.D	1	07/03/13	KR	n/a	n/a	MSL3502
Run #2							

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

VOA STARS List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.45	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		70-130%
2037-26-5	Toluene-D8	110%		70-130%
460-00-4	4-Bromofluorobenzene	120%		70-130%

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

4.3
4

Report of Analysis

Client Sample ID: MW-2		
Lab Sample ID: MC22017-3		Date Sampled: 06/20/13
Matrix: AQ - Ground Water		Date Received: 06/21/13
Method: SW846 8270C SW846 3510C		Percent Solids: n/a
Project: Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F65381.D	1	07/02/13	KR	06/24/13	OP33744	MSF3032
Run #2							

Run #	Initial Volume	Final Volume
Run #1	930 ml	1.0 ml
Run #2		

BN STARS List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	2.2	0.25	ug/l	
208-96-8	Acenaphthylene	ND	2.2	0.60	ug/l	
120-12-7	Anthracene	ND	2.2	0.22	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.2	0.23	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.2	0.23	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.2	0.25	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.2	0.27	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.2	0.29	ug/l	
218-01-9	Chrysene	ND	2.2	0.22	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.2	0.23	ug/l	
206-44-0	Fluoranthene	ND	2.2	0.24	ug/l	
86-73-7	Fluorene	ND	2.2	0.25	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.2	0.29	ug/l	
91-20-3	Naphthalene	ND	2.2	0.18	ug/l	
85-01-8	Phenanthrene	ND	2.2	0.22	ug/l	
129-00-0	Pyrene	ND	2.2	0.24	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	79%		30-130%
321-60-8	2-Fluorobiphenyl	76%		30-130%
1718-51-0	Terphenyl-d14	72%		30-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.3
 4

Report of Analysis

Client Sample ID: MW-2		
Lab Sample ID: MC22017-3		Date Sampled: 06/20/13
Matrix: AQ - Ground Water		Date Received: 06/21/13
Method: SW846 8082 SW846 3510C		Percent Solids: n/a
Project: Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ81897.D	1	07/02/13	CZ	06/24/13	OP33741	GYZ7207
Run #2							

Run #	Initial Volume	Final Volume
Run #1	980 ml	5.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.26	0.070	ug/l	
11104-28-2	Aroclor 1221	ND	0.26	0.074	ug/l	
11141-16-5	Aroclor 1232	ND	0.26	0.17	ug/l	
53469-21-9	Aroclor 1242	ND	0.26	0.10	ug/l	
12672-29-6	Aroclor 1248	ND	0.26	0.15	ug/l	
11097-69-1	Aroclor 1254	ND	0.26	0.074	ug/l	
11096-82-5	Aroclor 1260	ND	0.26	0.064	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	91%		30-150%
877-09-8	Tetrachloro-m-xylene	98%		30-150%
2051-24-3	Decachlorobiphenyl	71%		30-150%
2051-24-3	Decachlorobiphenyl	69%		30-150%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-2	Date Sampled: 06/20/13
Lab Sample ID: MC22017-3	Date Received: 06/21/13
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	346	200	40	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁴
Antimony	2.9 B	6.0	1.9	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁴
Arsenic	2.9 U	4.0	2.9	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁴
Barium	107	50	0.81	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁴
Beryllium	0.25 U	4.0	0.25	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁴
Cadmium	0.50 U	4.0	0.50	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁴
Calcium	44700	5000	38	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁴
Chromium	3.0 B	10	1.4	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁴
Cobalt	0.40 U	50	0.40	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁴
Copper	22.2 B	25	7.0	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁴
Iron	834	100	20	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁴
Lead	61.1	5.0	1.7	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁴
Magnesium	9680	5000	59	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁴
Manganese	16.8	15	0.81	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁴
Mercury	0.067 U	0.20	0.067	ug/l	1	06/24/13	06/25/13	SA SW846 7470A ¹	SW846 7470A ³
Nickel	2.1 B	40	0.57	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁴
Potassium	2290 B	5000	160	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁴
Selenium	4.8 U	10	4.8	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁴
Silver	1.0 U	5.0	1.0	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁴
Sodium	14300	5000	60	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁴
Thallium	1.9 U	5.0	1.9	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁴
Vanadium	2.8 U	10	2.8	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁴
Zinc	109	20	0.50	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁴

(1) Instrument QC Batch: MA15787

(2) Instrument QC Batch: MA15798

(3) Prep QC Batch: MP21234

(4) Prep QC Batch: MP21237

RL = Reporting Limit
 MDL = Method Detection Limit

U = Indicates a result < MDL
 B = Indicates a result > = MDL but < RL

4.3
 4

Report of Analysis

Client Sample ID: DUPE-X		
Lab Sample ID: MC22017-4		Date Sampled: 06/20/13
Matrix: AQ - Ground Water		Date Received: 06/21/13
Method: SW846 8260B		Percent Solids: n/a
Project: Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L75224.D	1	07/03/13	KR	n/a	n/a	MSL3502
Run #2							

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

VOA STARS List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.45	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		70-130%
2037-26-5	Toluene-D8	108%		70-130%
460-00-4	4-Bromofluorobenzene	120%		70-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.4
 4

Report of Analysis

Client Sample ID: DUPE-X		
Lab Sample ID: MC22017-4		Date Sampled: 06/20/13
Matrix: AQ - Ground Water		Date Received: 06/21/13
Method: SW846 8270C SW846 3510C		Percent Solids: n/a
Project: Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F65382.D	1	07/02/13	KR	06/24/13	OP33744	MSF3032
Run #2							

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

BN STARS List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	2.0	0.23	ug/l	
208-96-8	Acenaphthylene	ND	2.0	0.57	ug/l	
120-12-7	Anthracene	ND	2.0	0.21	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.0	0.22	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.0	0.21	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.0	0.23	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.0	0.26	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.0	0.27	ug/l	
218-01-9	Chrysene	ND	2.0	0.21	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.0	0.22	ug/l	
206-44-0	Fluoranthene	0.29	2.0	0.23	ug/l	J
86-73-7	Fluorene	ND	2.0	0.24	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.0	0.28	ug/l	
91-20-3	Naphthalene	ND	2.0	0.17	ug/l	
85-01-8	Phenanthrene	0.27	2.0	0.21	ug/l	J
129-00-0	Pyrene	0.30	2.0	0.23	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	80%		30-130%
321-60-8	2-Fluorobiphenyl	82%		30-130%
1718-51-0	Terphenyl-d14	94%		30-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.4
 4

Report of Analysis

Client Sample ID: DUPE-X Lab Sample ID: MC22017-4 Matrix: AQ - Ground Water Method: SW846 8082 SW846 3510C Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 06/20/13 Date Received: 06/21/13 Percent Solids: n/a
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ81898.D	1	07/02/13	CZ	06/24/13	OP33741	GYZ7207
Run #2							

Run #	Initial Volume	Final Volume
Run #1	940 ml	5.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.27	0.073	ug/l	
11104-28-2	Aroclor 1221	ND	0.27	0.077	ug/l	
11141-16-5	Aroclor 1232	ND	0.27	0.18	ug/l	
53469-21-9	Aroclor 1242	ND	0.27	0.11	ug/l	
12672-29-6	Aroclor 1248	ND	0.27	0.16	ug/l	
11097-69-1	Aroclor 1254	ND	0.27	0.077	ug/l	
11096-82-5	Aroclor 1260	ND	0.27	0.066	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	85%		30-150%
877-09-8	Tetrachloro-m-xylene	92%		30-150%
2051-24-3	Decachlorobiphenyl	63%		30-150%
2051-24-3	Decachlorobiphenyl	61%		30-150%

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

4.4
4

Report of Analysis

Client Sample ID: DUPE-X	Date Sampled: 06/20/13
Lab Sample ID: MC22017-4	Date Received: 06/21/13
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	307	200	40	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁴
Antimony	3.4 B	6.0	1.9	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁴
Arsenic	2.9 U	4.0	2.9	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁴
Barium	108	50	0.81	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁴
Beryllium	0.25 U	4.0	0.25	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁴
Cadmium	0.50 U	4.0	0.50	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁴
Calcium	44500	5000	38	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁴
Chromium	2.0 B	10	1.4	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁴
Cobalt	0.40 U	50	0.40	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁴
Copper	22.0 B	25	7.0	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁴
Iron	787	100	20	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁴
Lead	59.9	5.0	1.7	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁴
Magnesium	9760	5000	59	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁴
Manganese	16.6	15	0.81	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁴
Mercury	0.28	0.20	0.067	ug/l	1	06/24/13	06/25/13	SA SW846 7470A ¹	SW846 7470A ³
Nickel	2.1 B	40	0.57	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁴
Potassium	2350 B	5000	160	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁴
Selenium	4.8 U	10	4.8	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁴
Silver	1.0 U	5.0	1.0	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁴
Sodium	14200	5000	60	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁴
Thallium	1.9 U	5.0	1.9	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁴
Vanadium	2.8 U	10	2.8	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁴
Zinc	110	20	0.50	ug/l	1	06/25/13	06/25/13	EAL SW846 6010C ²	SW846 3010A ⁴

(1) Instrument QC Batch: MA15787

(2) Instrument QC Batch: MA15798

(3) Prep QC Batch: MP21234

(4) Prep QC Batch: MP21237

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	FIELD BLANK	Date Sampled:	06/19/13
Lab Sample ID:	MC22017-5	Date Received:	06/21/13
Matrix:	AQ - Field Blank Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L75212.D	1	07/03/13	KR	n/a	n/a	MSL3502
Run #2							

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

VOA STARS List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.45	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		70-130%
2037-26-5	Toluene-D8	109%		70-130%
460-00-4	4-Bromofluorobenzene	118%		70-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: FIELD BLANK		
Lab Sample ID: MC22017-6		Date Sampled: 06/20/13
Matrix: AQ - Field Blank Water		Date Received: 06/21/13
Method: SW846 8260B		Percent Solids: n/a
Project: Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L75210.D	1	07/03/13	KR	n/a	n/a	MSL3502
Run #2							

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

VOA STARS List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.45	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		70-130%
2037-26-5	Toluene-D8	108%		70-130%
460-00-4	4-Bromofluorobenzene	119%		70-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.6
4

Report of Analysis

Client Sample ID:	TRIP BLANK	Date Sampled:	06/20/13
Lab Sample ID:	MC22017-7	Date Received:	06/21/13
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L75211.D	1	07/03/13	KR	n/a	n/a	MSL3502
Run #2							

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

VOA STARS List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.45	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		70-130%
2037-26-5	Toluene-D8	109%		70-130%
460-00-4	4-Bromofluorobenzene	117%		70-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-1		
Lab Sample ID: MC22017-8		Date Sampled: 06/20/13
Matrix: AQ - Ground Water		Date Received: 06/25/13
Method: SW846 8260B		Percent Solids: n/a
Project: Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L75214.D	1	07/03/13	KR	n/a	n/a	MSL3502
Run #2							

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

VOA STARS List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.45	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		70-130%
2037-26-5	Toluene-D8	109%		70-130%
460-00-4	4-Bromofluorobenzene	119%		70-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.8
 4

Report of Analysis

Client Sample ID: MW-1		
Lab Sample ID: MC22017-8		Date Sampled: 06/20/13
Matrix: AQ - Ground Water		Date Received: 06/25/13
Method: SW846 8270C SW846 3510C		Percent Solids: n/a
Project: Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W13368.D	1	06/27/13	KR	06/26/13	OP33768	MSW612
Run #2							

Run #	Initial Volume	Final Volume
Run #1	920 ml	1.0 ml
Run #2		

BN STARS List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	2.2	0.25	ug/l	
208-96-8	Acenaphthylene	ND	2.2	0.61	ug/l	
120-12-7	Anthracene	ND	2.2	0.22	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.2	0.23	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.2	0.23	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.2	0.25	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.2	0.28	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.2	0.29	ug/l	
218-01-9	Chrysene	ND	2.2	0.22	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.2	0.23	ug/l	
206-44-0	Fluoranthene	ND	2.2	0.24	ug/l	
86-73-7	Fluorene	ND	2.2	0.26	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.2	0.30	ug/l	
91-20-3	Naphthalene	ND	2.2	0.18	ug/l	
85-01-8	Phenanthrene	ND	2.2	0.23	ug/l	
129-00-0	Pyrene	ND	2.2	0.24	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	87%		30-130%
321-60-8	2-Fluorobiphenyl	77%		30-130%
1718-51-0	Terphenyl-d14	89%		30-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.8
 4

Report of Analysis

Client Sample ID: MW-1 Lab Sample ID: MC22017-8 Matrix: AQ - Ground Water Method: SW846 8082 SW846 3510C Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 06/20/13 Date Received: 06/25/13 Percent Solids: n/a
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ81726.D	1	06/28/13	CZ	06/26/13	OP33775	GYZ7199
Run #2							

Run #	Initial Volume	Final Volume
Run #1	990 ml	5.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.25	0.069	ug/l	
11104-28-2	Aroclor 1221	ND	0.25	0.073	ug/l	
11141-16-5	Aroclor 1232	ND	0.25	0.17	ug/l	
53469-21-9	Aroclor 1242	ND	0.25	0.10	ug/l	
12672-29-6	Aroclor 1248	ND	0.25	0.15	ug/l	
11097-69-1	Aroclor 1254	ND	0.25	0.074	ug/l	
11096-82-5	Aroclor 1260	ND	0.25	0.063	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	73%		30-150%
877-09-8	Tetrachloro-m-xylene	84%		30-150%
2051-24-3	Decachlorobiphenyl	59%		30-150%
2051-24-3	Decachlorobiphenyl	72%		30-150%

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

4.8
4

Report of Analysis

Client Sample ID: MW-1	Date Sampled: 06/20/13
Lab Sample ID: MC22017-8	Date Received: 06/25/13
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	2860	200	40	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Antimony	1.9 U	6.0	1.9	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Arsenic	2.9 U	4.0	2.9	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Barium	993	50	0.81	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Beryllium	0.25 U	4.0	0.25	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Cadmium	0.50 U	4.0	0.50	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Calcium	87100	5000	38	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Chromium	2.9 B	10	1.4	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Cobalt	0.50 B	50	0.40	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Copper	7.0 U	25	7.0	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Iron	2420	100	20	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Lead	1.7 U	5.0	1.7	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Magnesium	32200	5000	59	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Manganese	55.0	15	0.81	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Mercury	0.067 U	0.20	0.067	ug/l	1	06/28/13	07/01/13	SA SW846 7470A ²	SW846 7470A ⁴
Nickel	1.8 B	40	0.57	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Potassium	3130 B	5000	160	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Selenium	4.8 U	10	4.8	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Silver	1.0 U	5.0	1.0	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Sodium	12100	5000	60	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Thallium	1.9 U	5.0	1.9	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Vanadium	4.4 B	10	2.8	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Zinc	5.4 B	20	0.50	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³

(1) Instrument QC Batch: MA15808

(2) Instrument QC Batch: MA15810

(3) Prep QC Batch: MP21255

(4) Prep QC Batch: MP21274

RL = Reporting Limit
 MDL = Method Detection Limit

U = Indicates a result < MDL
 B = Indicates a result > = MDL but < RL

4.8
 4

Report of Analysis

Client Sample ID:	FIELD BLANK	Date Sampled:	06/21/13
Lab Sample ID:	MC22017-9	Date Received:	06/25/13
Matrix:	AQ - Field Blank Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L75213.D	1	07/03/13	KR	n/a	n/a	MSL3502
Run #2							

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

VOA STARS List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.45	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		70-130%
2037-26-5	Toluene-D8	108%		70-130%
460-00-4	4-Bromofluorobenzene	117%		70-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FIELD BLANK	Date Sampled:	06/21/13
Lab Sample ID:	MC22017-9	Date Received:	06/25/13
Matrix:	AQ - Field Blank Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W13440.D	1	06/28/13	KR	06/26/13	OP33768	MSW615
Run #2							

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

BN STARS List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	2.1	0.24	ug/l	
208-96-8	Acenaphthylene	ND	2.1	0.58	ug/l	
120-12-7	Anthracene	ND	2.1	0.21	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.1	0.22	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.1	0.22	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.1	0.24	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.1	0.26	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.1	0.28	ug/l	
218-01-9	Chrysene	ND	2.1	0.21	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.1	0.22	ug/l	
206-44-0	Fluoranthene	ND	2.1	0.23	ug/l	
86-73-7	Fluorene	ND	2.1	0.24	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.1	0.28	ug/l	
91-20-3	Naphthalene	ND	2.1	0.17	ug/l	
85-01-8	Phenanthrene	ND	2.1	0.22	ug/l	
129-00-0	Pyrene	ND	2.1	0.23	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	132% ^a		30-130%
321-60-8	2-Fluorobiphenyl	117%		30-130%
1718-51-0	Terphenyl-d14	133% ^a		30-130%

(a) Outside control limits. Associated target analytes are non-detect.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.9
4

Report of Analysis

Client Sample ID: FIELD BLANK Lab Sample ID: MC22017-9 Matrix: AQ - Field Blank Water Method: SW846 8082 SW846 3510C Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 06/21/13 Date Received: 06/25/13 Percent Solids: n/a
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ81732.D	1	06/28/13	CZ	06/26/13	OP33775	GYZ7200
Run #2							

Run #	Initial Volume	Final Volume
Run #1	940 ml	5.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.27	0.073	ug/l	
11104-28-2	Aroclor 1221	ND	0.27	0.077	ug/l	
11141-16-5	Aroclor 1232	ND	0.27	0.18	ug/l	
53469-21-9	Aroclor 1242	ND	0.27	0.11	ug/l	
12672-29-6	Aroclor 1248	ND	0.27	0.16	ug/l	
11097-69-1	Aroclor 1254	ND	0.27	0.077	ug/l	
11096-82-5	Aroclor 1260	ND	0.27	0.066	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	71%		30-150%
877-09-8	Tetrachloro-m-xylene	79%		30-150%
2051-24-3	Decachlorobiphenyl	49%		30-150%
2051-24-3	Decachlorobiphenyl	55%		30-150%

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

4.9

Report of Analysis

Client Sample ID:	FIELD BLANK	Date Sampled:	06/21/13
Lab Sample ID:	MC22017-9	Date Received:	06/25/13
Matrix:	AQ - Field Blank Water	Percent Solids:	n/a
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	40 U	200	40	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Antimony	1.9 U	6.0	1.9	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Arsenic	2.9 U	4.0	2.9	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Barium	0.81 U	50	0.81	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Beryllium	0.25 U	4.0	0.25	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Cadmium	0.50 U	4.0	0.50	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Calcium	127 B	5000	38	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Chromium	2.2 B	10	1.4	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Cobalt	0.40 U	50	0.40	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Copper	7.0 U	25	7.0	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Iron	20 U	100	20	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Lead	1.7 U	5.0	1.7	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Magnesium	59 U	5000	59	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Manganese	0.81 U	15	0.81	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Mercury	0.067 U	0.20	0.067	ug/l	1	06/28/13	07/01/13	SA SW846 7470A ²	SW846 7470A ⁴
Nickel	1.0 B	40	0.57	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Potassium	160 U	5000	160	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Selenium	4.8 U	10	4.8	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Silver	1.0 U	5.0	1.0	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Sodium	137 B	5000	60	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Thallium	1.9 U	5.0	1.9	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Vanadium	2.8 U	10	2.8	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Zinc	4.9 B	20	0.50	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³

(1) Instrument QC Batch: MA15808

(2) Instrument QC Batch: MA15810

(3) Prep QC Batch: MP21255

(4) Prep QC Batch: MP21274

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: MW-2		Date Sampled: 06/21/13
Lab Sample ID: MC22017-10		Date Received: 06/25/13
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8260B		
Project: Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L75225.D	1	07/03/13	KR	n/a	n/a	MSL3502
Run #2							

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

VOA STARS List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.45	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		70-130%
2037-26-5	Toluene-D8	110%		70-130%
460-00-4	4-Bromofluorobenzene	119%		70-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID:	MW-2	Date Sampled:	06/21/13
Lab Sample ID:	MC22017-10	Date Received:	06/25/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W13441.D	1	06/28/13	KR	06/26/13	OP33768	MSW615
Run #2							

Run #	Initial Volume	Final Volume
Run #1	930 ml	1.0 ml
Run #2		

BN STARS List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	2.2	0.25	ug/l	
208-96-8	Acenaphthylene	ND	2.2	0.60	ug/l	
120-12-7	Anthracene	ND	2.2	0.22	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.2	0.23	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.2	0.23	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.2	0.25	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.2	0.27	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.2	0.29	ug/l	
218-01-9	Chrysene	ND	2.2	0.22	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.2	0.23	ug/l	
206-44-0	Fluoranthene	ND	2.2	0.24	ug/l	
86-73-7	Fluorene	ND	2.2	0.25	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.2	0.29	ug/l	
91-20-3	Naphthalene	ND	2.2	0.18	ug/l	
85-01-8	Phenanthrene	ND	2.2	0.22	ug/l	
129-00-0	Pyrene	ND	2.2	0.24	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	165% ^a		30-130%
321-60-8	2-Fluorobiphenyl	153% ^a		30-130%
1718-51-0	Terphenyl-d14	165% ^a		30-130%

(a) Outside control limits. Associated target analytes are non-detect.

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-2	Date Sampled:	06/21/13
Lab Sample ID:	MC22017-10	Date Received:	06/25/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8082 SW846 3510C		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ81733.D	1	06/28/13	CZ	06/26/13	OP33775	GYZ7200
Run #2							

Run #	Initial Volume	Final Volume
Run #1	910 ml	5.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.27	0.076	ug/l	
11104-28-2	Aroclor 1221	ND	0.27	0.079	ug/l	
11141-16-5	Aroclor 1232	ND	0.27	0.18	ug/l	
53469-21-9	Aroclor 1242	ND	0.27	0.11	ug/l	
12672-29-6	Aroclor 1248	ND	0.27	0.16	ug/l	
11097-69-1	Aroclor 1254	ND	0.27	0.080	ug/l	
11096-82-5	Aroclor 1260	ND	0.27	0.069	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	76%		30-150%
877-09-8	Tetrachloro-m-xylene	90%		30-150%
2051-24-3	Decachlorobiphenyl	62%		30-150%
2051-24-3	Decachlorobiphenyl	75%		30-150%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-2	Date Sampled: 06/21/13
Lab Sample ID: MC22017-10	Date Received: 06/25/13
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	3720	200	40	ug/l	1	06/27/13	06/28/13	EAL SW846 6010C ³	SW846 3010A ⁴
Antimony	1.9 U	6.0	1.9	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ⁴
Arsenic	2.9 U	4.0	2.9	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ⁴
Barium	114	50	0.81	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ⁴
Beryllium	0.25 U	4.0	0.25	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ⁴
Cadmium	0.50 U	4.0	0.50	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ⁴
Calcium	186000	5000	38	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ⁴
Chromium	10.2	10	1.4	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ⁴
Cobalt	2.9 B	50	0.40	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ⁴
Copper	7.6 B	25	7.0	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ⁴
Iron	12000	100	20	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ⁴
Lead	1.7 U	5.0	1.7	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ⁴
Magnesium	43300	5000	59	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ⁴
Manganese	693	15	0.81	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ⁴
Mercury	0.067 U	0.20	0.067	ug/l	1	06/28/13	07/01/13	SA SW846 7470A ²	SW846 7470A ⁵
Nickel	21.7 B	40	0.57	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ⁴
Potassium	9810	5000	160	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ⁴
Selenium	4.8 U	10	4.8	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ⁴
Silver	1.0 U	5.0	1.0	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ⁴
Sodium	11500	5000	60	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ⁴
Thallium	1.9 U	5.0	1.9	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ⁴
Vanadium	11.9	10	2.8	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ⁴
Zinc	14.7 B	20	0.50	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ⁴

(1) Instrument QC Batch: MA15808

(2) Instrument QC Batch: MA15810

(3) Instrument QC Batch: MA15820

(4) Prep QC Batch: MP21255

(5) Prep QC Batch: MP21274

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: MW-3		Date Sampled: 06/21/13
Lab Sample ID: MC22017-11		Date Received: 06/25/13
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8260B		
Project: Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L75226.D	1	07/03/13	KR	n/a	n/a	MSL3502
Run #2							

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

VOA STARS List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.45	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		70-130%
2037-26-5	Toluene-D8	108%		70-130%
460-00-4	4-Bromofluorobenzene	117%		70-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.11
4

Report of Analysis

Client Sample ID:	MW-3	Date Sampled:	06/21/13
Lab Sample ID:	MC22017-11	Date Received:	06/25/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W13442.D	1	06/28/13	KR	06/26/13	OP33768	MSW615
Run #2							

Run #	Initial Volume	Final Volume
Run #1	930 ml	1.0 ml
Run #2		

BN STARS List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	2.2	0.25	ug/l	
208-96-8	Acenaphthylene	ND	2.2	0.60	ug/l	
120-12-7	Anthracene	ND	2.2	0.22	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.2	0.23	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.2	0.23	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.2	0.25	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.2	0.27	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.2	0.29	ug/l	
218-01-9	Chrysene	ND	2.2	0.22	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.2	0.23	ug/l	
206-44-0	Fluoranthene	ND	2.2	0.24	ug/l	
86-73-7	Fluorene	ND	2.2	0.25	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.2	0.29	ug/l	
91-20-3	Naphthalene	ND	2.2	0.18	ug/l	
85-01-8	Phenanthrene	ND	2.2	0.22	ug/l	
129-00-0	Pyrene	ND	2.2	0.24	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	125%		30-130%
321-60-8	2-Fluorobiphenyl	111%		30-130%
1718-51-0	Terphenyl-d14	124%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-3 Lab Sample ID: MC22017-11 Matrix: AQ - Ground Water Method: SW846 8082 SW846 3510C Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 06/21/13 Date Received: 06/25/13 Percent Solids: n/a
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ81734.D	1	06/28/13	CZ	06/26/13	OP33775	GYZ7200
Run #2							

Run #	Initial Volume	Final Volume
Run #1	910 ml	5.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.27	0.076	ug/l	
11104-28-2	Aroclor 1221	ND	0.27	0.079	ug/l	
11141-16-5	Aroclor 1232	ND	0.27	0.18	ug/l	
53469-21-9	Aroclor 1242	ND	0.27	0.11	ug/l	
12672-29-6	Aroclor 1248	ND	0.27	0.16	ug/l	
11097-69-1	Aroclor 1254	ND	0.27	0.080	ug/l	
11096-82-5	Aroclor 1260	ND	0.27	0.069	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	80%		30-150%
877-09-8	Tetrachloro-m-xylene	93%		30-150%
2051-24-3	Decachlorobiphenyl	64%		30-150%
2051-24-3	Decachlorobiphenyl	80%		30-150%

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

4.11
4

Report of Analysis

Client Sample ID: MW-3	Date Sampled: 06/21/13
Lab Sample ID: MC22017-11	Date Received: 06/25/13
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	6790	200	40	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Antimony	1.9 U	6.0	1.9	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Arsenic	3.3 B	4.0	2.9	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Barium	82.1	50	0.81	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Beryllium	0.25 U	4.0	0.25	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Cadmium	0.50 U	4.0	0.50	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Calcium	146000	5000	38	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Chromium	7.7 B	10	1.4	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Cobalt	2.5 B	50	0.40	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Copper	7.0 U	25	7.0	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Iron	5450	100	20	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Lead	1.7 U	5.0	1.7	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Magnesium	50400	5000	59	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Manganese	560	15	0.81	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Mercury	0.067 U	0.20	0.067	ug/l	1	06/28/13	07/01/13	SA SW846 7470A ²	SW846 7470A ⁴
Nickel	6.8 B	40	0.57	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Potassium	5960	5000	160	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Selenium	4.8 U	10	4.8	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Silver	1.0 U	5.0	1.0	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Sodium	51500	5000	60	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Thallium	1.9 U	5.0	1.9	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Vanadium	10.3	10	2.8	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Zinc	11.4 B	20	0.50	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³

- (1) Instrument QC Batch: MA15808
- (2) Instrument QC Batch: MA15810
- (3) Prep QC Batch: MP21255
- (4) Prep QC Batch: MP21274

RL = Reporting Limit
 MDL = Method Detection Limit

U = Indicates a result < MDL
 B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: MW-4		Date Sampled: 06/21/13
Lab Sample ID: MC22017-12		Date Received: 06/25/13
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8260B		
Project: Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L75227.D	1	07/03/13	KR	n/a	n/a	MSL3502
Run #2							

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

VOA STARS List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.45	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		70-130%
2037-26-5	Toluene-D8	109%		70-130%
460-00-4	4-Bromofluorobenzene	118%		70-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID: MW-4		Date Sampled: 06/21/13
Lab Sample ID: MC22017-12		Date Received: 06/25/13
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8270C SW846 3510C		
Project: Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W13443.D	1	06/28/13	KR	06/26/13	OP33768	MSW615
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

BN STARS List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	2.0	0.23	ug/l	
208-96-8	Acenaphthylene	ND	2.0	0.56	ug/l	
120-12-7	Anthracene	ND	2.0	0.21	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.0	0.21	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.0	0.21	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.0	0.23	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.0	0.25	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.0	0.27	ug/l	
218-01-9	Chrysene	ND	2.0	0.20	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.0	0.21	ug/l	
206-44-0	Fluoranthene	ND	2.0	0.22	ug/l	
86-73-7	Fluorene	ND	2.0	0.24	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	2.0	0.17	ug/l	
85-01-8	Phenanthrene	ND	2.0	0.21	ug/l	
129-00-0	Pyrene	ND	2.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	76%		30-130%
321-60-8	2-Fluorobiphenyl	61%		30-130%
1718-51-0	Terphenyl-d14	79%		30-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID: MW-4		Date Sampled: 06/21/13
Lab Sample ID: MC22017-12		Date Received: 06/25/13
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8082 SW846 3510C		
Project: Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ81735.D	1	06/28/13	CZ	06/26/13	OP33775	GYZ7200
Run #2							

Run #	Initial Volume	Final Volume
Run #1	930 ml	5.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.27	0.074	ug/l	
11104-28-2	Aroclor 1221	ND	0.27	0.078	ug/l	
11141-16-5	Aroclor 1232	ND	0.27	0.18	ug/l	
53469-21-9	Aroclor 1242	ND	0.27	0.11	ug/l	
12672-29-6	Aroclor 1248	ND	0.27	0.16	ug/l	
11097-69-1	Aroclor 1254	ND	0.27	0.078	ug/l	
11096-82-5	Aroclor 1260	ND	0.27	0.067	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	67%		30-150%
877-09-8	Tetrachloro-m-xylene	79%		30-150%
2051-24-3	Decachlorobiphenyl	73%		30-150%
2051-24-3	Decachlorobiphenyl	89%		30-150%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.12
4

Report of Analysis

Client Sample ID: MW-4	Date Sampled: 06/21/13
Lab Sample ID: MC22017-12	Date Received: 06/25/13
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	671	200	40	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Antimony	1.9 U	6.0	1.9	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Arsenic	2.9 B	4.0	2.9	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Barium	63.4	50	0.81	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Beryllium	0.25 U	4.0	0.25	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Cadmium	0.50 U	4.0	0.50	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Calcium	90400	5000	38	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Chromium	1.4 U	10	1.4	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Cobalt	0.40 U	50	0.40	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Copper	7.0 U	25	7.0	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Iron	773	100	20	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Lead	1.7 U	5.0	1.7	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Magnesium	37200	5000	59	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Manganese	84.3	15	0.81	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Mercury	0.067 U	0.20	0.067	ug/l	1	06/28/13	07/01/13	SA SW846 7470A ²	SW846 7470A ⁴
Nickel	3.2 B	40	0.57	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Potassium	4470 B	5000	160	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Selenium	4.8 U	10	4.8	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Silver	1.0 U	5.0	1.0	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Sodium	142000	5000	60	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Thallium	1.9 U	5.0	1.9	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Vanadium	3.0 B	10	2.8	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Zinc	3.7 B	20	0.50	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³

(1) Instrument QC Batch: MA15808

(2) Instrument QC Batch: MA15810

(3) Prep QC Batch: MP21255

(4) Prep QC Batch: MP21274

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: TRIP BLANK		Date Sampled: 06/21/13
Lab Sample ID: MC22017-13		Date Received: 06/25/13
Matrix: AQ - Trip Blank Water		Percent Solids: n/a
Method: SW846 8260B		
Project: Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L75323.D	1	07/05/13	KR	n/a	n/a	MSL3506
Run #2							

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

VOA STARS List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.45	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		70-130%
2037-26-5	Toluene-D8	108%		70-130%
460-00-4	4-Bromofluorobenzene	116%		70-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.13
4

Report of Analysis

Client Sample ID: MW-3		Date Sampled: 06/24/13
Lab Sample ID: MC22017-14		Date Received: 06/25/13
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8260B		
Project: Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P70029.D	1	07/08/13	KD	n/a	n/a	MSP2298
Run #2							

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

VOA STARS List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.45	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	82%		70-130%
2037-26-5	Toluene-D8	84%		70-130%
460-00-4	4-Bromofluorobenzene	93%		70-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.14
4

Report of Analysis

Client Sample ID:	MW-3	Date Sampled:	06/24/13
Lab Sample ID:	MC22017-14	Date Received:	06/25/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W13516.D	1	07/01/13	KR	06/28/13	OP33811	MSW618
Run #2							

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

BN STARS List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	2.0	0.23	ug/l	
208-96-8	Acenaphthylene	ND	2.0	0.57	ug/l	
120-12-7	Anthracene	ND	2.0	0.21	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.0	0.22	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.0	0.21	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.0	0.23	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.0	0.26	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.0	0.27	ug/l	
218-01-9	Chrysene	ND	2.0	0.21	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.0	0.22	ug/l	
206-44-0	Fluoranthene	ND	2.0	0.23	ug/l	
86-73-7	Fluorene	ND	2.0	0.24	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.0	0.28	ug/l	
91-20-3	Naphthalene	0.38	2.0	0.17	ug/l	J
85-01-8	Phenanthrene	ND	2.0	0.21	ug/l	
129-00-0	Pyrene	ND	2.0	0.23	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	55%		30-130%
321-60-8	2-Fluorobiphenyl	50%		30-130%
1718-51-0	Terphenyl-d14	81%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-3		Date Sampled: 06/24/13
Lab Sample ID: MC22017-14		Date Received: 06/25/13
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8082 SW846 3510C		
Project: Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ81736.D	1	06/28/13	CZ	06/26/13	OP33775	GYZ7200
Run #2							

Run #	Initial Volume	Final Volume
Run #1	970 ml	5.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.26	0.071	ug/l	
11104-28-2	Aroclor 1221	ND	0.26	0.074	ug/l	
11141-16-5	Aroclor 1232	ND	0.26	0.17	ug/l	
53469-21-9	Aroclor 1242	ND	0.26	0.10	ug/l	
12672-29-6	Aroclor 1248	ND	0.26	0.15	ug/l	
11097-69-1	Aroclor 1254	ND	0.26	0.075	ug/l	
11096-82-5	Aroclor 1260	ND	0.26	0.064	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	69%		30-150%
877-09-8	Tetrachloro-m-xylene	81%		30-150%
2051-24-3	Decachlorobiphenyl	63%		30-150%
2051-24-3	Decachlorobiphenyl	76%		30-150%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.14
4

Report of Analysis

Client Sample ID: MW-3	Date Sampled: 06/24/13
Lab Sample ID: MC22017-14	Date Received: 06/25/13
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	322	200	40	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Antimony	1.9 U	6.0	1.9	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Arsenic	2.9 U	4.0	2.9	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Barium	97.0	50	0.81	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Beryllium	0.25 U	4.0	0.25	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Cadmium	0.50 U	4.0	0.50	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Calcium	64800	5000	38	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Chromium	1.4 U	10	1.4	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Cobalt	0.40 U	50	0.40	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Copper	7.0 U	25	7.0	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Iron	2790	100	20	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Lead	2.7 B	5.0	1.7	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Magnesium	18000	5000	59	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Manganese	121	15	0.81	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Mercury	0.067 U	0.20	0.067	ug/l	1	06/28/13	07/01/13	SA SW846 7470A ²	SW846 7470A ⁴
Nickel	1.0 B	40	0.57	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Potassium	1610 B	5000	160	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Selenium	4.8 U	10	4.8	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Silver	1.0 U	5.0	1.0	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Sodium	191000	5000	60	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Thallium	1.9 U	5.0	1.9	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Vanadium	2.8 U	10	2.8	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Zinc	4.6 B	20	0.50	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³

(1) Instrument QC Batch: MA15808

(2) Instrument QC Batch: MA15810

(3) Prep QC Batch: MP21255

(4) Prep QC Batch: MP21274

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: MW-2		
Lab Sample ID: MC22017-15		Date Sampled: 06/24/13
Matrix: AQ - Ground Water		Date Received: 06/25/13
Method: SW846 8260B		Percent Solids: n/a
Project: Auburn EPA Brownfield Phase II, Auburn, NY		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	P70023.D	1	07/08/13	KD	n/a	n/a	MSP2298

Run #1	Purge Volume
Run #2	5.0 ml

VOA STARS List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.45	ug/l	
104-51-8	n-Butylbenzene	1.2	5.0	0.54	ug/l	J
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
91-20-3	Naphthalene	10.4	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	0.90	5.0	0.59	ug/l	J
108-88-3	Toluene	ND	1.0	0.46	ug/l	
95-63-6	1,2,4-Trimethylbenzene	0.50	5.0	0.47	ug/l	J
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	79%		70-130%
2037-26-5	Toluene-D8	83%		70-130%
460-00-4	4-Bromofluorobenzene	98%		70-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID: MW-2	Date Sampled: 06/24/13
Lab Sample ID: MC22017-15	Date Received: 06/25/13
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8270C SW846 3510C	
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W13517.D	1	07/01/13	KR	06/28/13	OP33811	MSW618
Run #2							

Run #	Initial Volume	Final Volume
Run #1	940 ml	1.0 ml
Run #2		

BN STARS List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.95	2.1	0.24	ug/l	J
208-96-8	Acenaphthylene	ND	2.1	0.59	ug/l	
120-12-7	Anthracene	0.82	2.1	0.22	ug/l	J
56-55-3	Benzo(a)anthracene	0.40	2.1	0.22	ug/l	J
50-32-8	Benzo(a)pyrene	ND	2.1	0.22	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.1	0.24	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.1	0.27	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.1	0.29	ug/l	
218-01-9	Chrysene	0.46	2.1	0.21	ug/l	J
53-70-3	Dibenzo(a,h)anthracene	ND	2.1	0.23	ug/l	
206-44-0	Fluoranthene	0.53	2.1	0.24	ug/l	J
86-73-7	Fluorene	1.8	2.1	0.25	ug/l	J
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.1	0.29	ug/l	
91-20-3	Naphthalene	ND	2.1	0.18	ug/l	
85-01-8	Phenanthrene	1.4	2.1	0.22	ug/l	J
129-00-0	Pyrene	1.6	2.1	0.24	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	46%		30-130%
321-60-8	2-Fluorobiphenyl	51%		30-130%
1718-51-0	Terphenyl-d14	63%		30-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID: MW-2	Date Sampled: 06/24/13
Lab Sample ID: MC22017-15	Date Received: 06/25/13
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8082 SW846 3510C	
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ81737.D	1	06/28/13	CZ	06/26/13	OP33775	GYZ7200
Run #2							

Run #	Initial Volume	Final Volume
Run #1	970 ml	5.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.26	0.071	ug/l	
11104-28-2	Aroclor 1221	ND	0.26	0.074	ug/l	
11141-16-5	Aroclor 1232	ND	0.26	0.17	ug/l	
53469-21-9	Aroclor 1242	ND	0.26	0.10	ug/l	
12672-29-6	Aroclor 1248	ND	0.26	0.15	ug/l	
11097-69-1	Aroclor 1254	ND	0.26	0.075	ug/l	
11096-82-5	Aroclor 1260	ND	0.26	0.064	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	65%		30-150%
877-09-8	Tetrachloro-m-xylene	69%		30-150%
2051-24-3	Decachlorobiphenyl	63%		30-150%
2051-24-3	Decachlorobiphenyl	65%		30-150%

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-2	Date Sampled:	06/24/13
Lab Sample ID:	MC22017-15	Date Received:	06/25/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	5130	200	40	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Antimony	2.3 B	6.0	1.9	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Arsenic	9.7	4.0	2.9	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Barium	107	50	0.81	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Beryllium	0.25 U	4.0	0.25	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Cadmium	0.50 U	4.0	0.50	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Calcium	114000	5000	38	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Chromium	26.3	10	1.4	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Cobalt	3.6 B	50	0.40	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Copper	30.4	25	7.0	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Iron	16000	100	20	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Lead	71.6	5.0	1.7	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Magnesium	30900	5000	59	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Manganese	251	15	0.81	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Mercury	0.42	0.20	0.067	ug/l	1	06/28/13	07/01/13	SA SW846 7470A ²	SW846 7470A ⁴
Nickel	11.0 B	40	0.57	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Potassium	7270	5000	160	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Selenium	4.8 U	10	4.8	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Silver	1.0 U	5.0	1.0	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Sodium	39500	5000	60	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Thallium	1.9 U	5.0	1.9	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Vanadium	9.8 B	10	2.8	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Zinc	64.1	20	0.50	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³

(1) Instrument QC Batch: MA15808

(2) Instrument QC Batch: MA15810

(3) Prep QC Batch: MP21255

(4) Prep QC Batch: MP21274

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: MW-1		Date Sampled: 06/24/13
Lab Sample ID: MC22017-16		Date Received: 06/25/13
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8260B		
Project: Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P70024.D	1	07/08/13	KD	n/a	n/a	MSP2298
Run #2							

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

VOA STARS List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.45	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	80%		70-130%
2037-26-5	Toluene-D8	82%		70-130%
460-00-4	4-Bromofluorobenzene	101%		70-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.16
4

Report of Analysis

Client Sample ID:	MW-1	Date Sampled:	06/24/13
Lab Sample ID:	MC22017-16	Date Received:	06/25/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W13518.D	1	07/01/13	KR	06/28/13	OP33811	MSW618
Run #2							

Run #	Initial Volume	Final Volume
Run #1	860 ml	1.0 ml
Run #2		

BN STARS List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	2.3	0.27	ug/l	
208-96-8	Acenaphthylene	ND	2.3	0.65	ug/l	
120-12-7	Anthracene	ND	2.3	0.24	ug/l	
56-55-3	Benzo(a)anthracene	0.27	2.3	0.25	ug/l	J
50-32-8	Benzo(a)pyrene	ND	2.3	0.24	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.3	0.27	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.3	0.30	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.3	0.31	ug/l	
218-01-9	Chrysene	0.32	2.3	0.23	ug/l	J
53-70-3	Dibenzo(a,h)anthracene	ND	2.3	0.25	ug/l	
206-44-0	Fluoranthene	0.30	2.3	0.26	ug/l	J
86-73-7	Fluorene	ND	2.3	0.28	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.3	0.32	ug/l	
91-20-3	Naphthalene	ND	2.3	0.20	ug/l	
85-01-8	Phenanthrene	ND	2.3	0.24	ug/l	
129-00-0	Pyrene	1.2	2.3	0.26	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	52%		30-130%
321-60-8	2-Fluorobiphenyl	55%		30-130%
1718-51-0	Terphenyl-d14	73%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-1		Date Sampled: 06/24/13
Lab Sample ID: MC22017-16		Date Received: 06/25/13
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8082 SW846 3510C		
Project: Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ81738.D	1	06/28/13	CZ	06/26/13	OP33775	GYZ7200
Run #2							

Run #	Initial Volume	Final Volume
Run #1	970 ml	5.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.26	0.071	ug/l	
11104-28-2	Aroclor 1221	ND	0.26	0.074	ug/l	
11141-16-5	Aroclor 1232	ND	0.26	0.17	ug/l	
53469-21-9	Aroclor 1242	ND	0.26	0.10	ug/l	
12672-29-6	Aroclor 1248	ND	0.26	0.15	ug/l	
11097-69-1	Aroclor 1254	ND	0.26	0.075	ug/l	
11096-82-5	Aroclor 1260	ND	0.26	0.064	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	67%		30-150%
877-09-8	Tetrachloro-m-xylene	76%		30-150%
2051-24-3	Decachlorobiphenyl	86%		30-150%
2051-24-3	Decachlorobiphenyl	96%		30-150%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID:	MW-1	Date Sampled:	06/24/13
Lab Sample ID:	MC22017-16	Date Received:	06/25/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	1510	200	40	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Antimony	1.9 U	6.0	1.9	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Arsenic	2.9 U	4.0	2.9	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Barium	245	50	0.81	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Beryllium	0.25 U	4.0	0.25	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Cadmium	0.50 U	4.0	0.50	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Calcium	80700	5000	38	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Chromium	3.3 B	10	1.4	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Cobalt	0.50 B	50	0.40	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Copper	7.0 B	25	7.0	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Iron	2150	100	20	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Lead	14.8	5.0	1.7	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Magnesium	14600	5000	59	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Manganese	38.0	15	0.81	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Mercury	0.067 U	0.20	0.067	ug/l	1	06/28/13	07/01/13	SA SW846 7470A ²	SW846 7470A ⁴
Nickel	51.6	40	0.57	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Potassium	2490 B	5000	160	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Selenium	4.8 U	10	4.8	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Silver	1.0 U	5.0	1.0	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Sodium	62000	5000	60	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Thallium	1.9 U	5.0	1.9	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Vanadium	3.1 B	10	2.8	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Zinc	36.1	20	0.50	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³

(1) Instrument QC Batch: MA15808

(2) Instrument QC Batch: MA15810

(3) Prep QC Batch: MP21255

(4) Prep QC Batch: MP21274

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW-3	Date Sampled:	06/24/13
Lab Sample ID:	MC22017-17	Date Received:	06/25/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L75331.D	1	07/05/13	KR	n/a	n/a	MSL3506
Run #2							

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

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.33	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.6	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.59	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.62	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.48	ug/l	
75-00-3	Chloroethane	ND	2.0	0.84	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	1.4	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.45	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.29	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
100-42-5	Styrene	ND	5.0	0.49	ug/l	
79-34-5	1,1,1,2-Tetrachloroethane	ND	0.50	0.42	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
108-88-3	Toluene	0.47	1.0	0.46	ug/l	J
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-3 Lab Sample ID: MC22017-17 Matrix: AQ - Ground Water Method: SW846 8260B Project: Auburn EPA Brownfield Phase II, Auburn, NY	Date Sampled: 06/24/13 Date Received: 06/25/13 Percent Solids: n/a
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VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		70-130%
2037-26-5	Toluene-D8	107%		70-130%
460-00-4	4-Bromofluorobenzene	116%		70-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.17
4

Report of Analysis

Client Sample ID: MW-3		Date Sampled: 06/24/13
Lab Sample ID: MC22017-17		Date Received: 06/25/13
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8270C SW846 3510C		
Project: Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W13519.D	1	07/01/13	KR	06/28/13	OP33811	MSW618
Run #2							

Run #	Initial Volume	Final Volume
Run #1	930 ml	1.0 ml
Run #2		

BN STARS List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	2.2	0.25	ug/l	
208-96-8	Acenaphthylene	ND	2.2	0.60	ug/l	
120-12-7	Anthracene	ND	2.2	0.22	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.2	0.23	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.2	0.23	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.2	0.25	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.2	0.27	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.2	0.29	ug/l	
218-01-9	Chrysene	ND	2.2	0.22	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.2	0.23	ug/l	
206-44-0	Fluoranthene	ND	2.2	0.24	ug/l	
86-73-7	Fluorene	ND	2.2	0.25	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.2	0.29	ug/l	
91-20-3	Naphthalene	0.24	2.2	0.18	ug/l	J
85-01-8	Phenanthrene	0.26	2.2	0.22	ug/l	J
129-00-0	Pyrene	ND	2.2	0.24	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	61%		30-130%
321-60-8	2-Fluorobiphenyl	56%		30-130%
1718-51-0	Terphenyl-d14	66%		30-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.17
4

Report of Analysis

Client Sample ID: MW-3	Date Sampled: 06/24/13
Lab Sample ID: MC22017-17	Date Received: 06/25/13
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8082 SW846 3510C	
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ81739.D	1	06/28/13	CZ	06/26/13	OP33775	GYZ7200
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1000 ml	5.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.25	0.069	ug/l	
11104-28-2	Aroclor 1221	ND	0.25	0.072	ug/l	
11141-16-5	Aroclor 1232	ND	0.25	0.17	ug/l	
53469-21-9	Aroclor 1242	ND	0.25	0.10	ug/l	
12672-29-6	Aroclor 1248	ND	0.25	0.15	ug/l	
11097-69-1	Aroclor 1254	ND	0.25	0.073	ug/l	
11096-82-5	Aroclor 1260	ND	0.25	0.062	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	66%		30-150%
877-09-8	Tetrachloro-m-xylene	78%		30-150%
2051-24-3	Decachlorobiphenyl	57%		30-150%
2051-24-3	Decachlorobiphenyl	65%		30-150%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.17
4

Report of Analysis

Client Sample ID: MW-3	Date Sampled: 06/24/13
Lab Sample ID: MC22017-17	Date Received: 06/25/13
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	40 U	200	40	ug/l	1	06/27/13	06/27/13 EAL	SW846 6010C ¹	SW846 3010A ³
Antimony	1.9 U	6.0	1.9	ug/l	1	06/27/13	06/27/13 EAL	SW846 6010C ¹	SW846 3010A ³
Arsenic	2.9 U	4.0	2.9	ug/l	1	06/27/13	06/27/13 EAL	SW846 6010C ¹	SW846 3010A ³
Barium	49.2 B	50	0.81	ug/l	1	06/27/13	06/27/13 EAL	SW846 6010C ¹	SW846 3010A ³
Beryllium	0.25 U	4.0	0.25	ug/l	1	06/27/13	06/27/13 EAL	SW846 6010C ¹	SW846 3010A ³
Cadmium	0.50 U	4.0	0.50	ug/l	1	06/27/13	06/27/13 EAL	SW846 6010C ¹	SW846 3010A ³
Calcium	208000	5000	38	ug/l	1	06/27/13	06/27/13 EAL	SW846 6010C ¹	SW846 3010A ³
Chromium	4.9 B	10	1.4	ug/l	1	06/27/13	06/27/13 EAL	SW846 6010C ¹	SW846 3010A ³
Cobalt	1.1 B	50	0.40	ug/l	1	06/27/13	06/27/13 EAL	SW846 6010C ¹	SW846 3010A ³
Copper	7.0 U	25	7.0	ug/l	1	06/27/13	06/27/13 EAL	SW846 6010C ¹	SW846 3010A ³
Iron	29500	100	20	ug/l	1	06/27/13	06/27/13 EAL	SW846 6010C ¹	SW846 3010A ³
Lead	4.5 B	5.0	1.7	ug/l	1	06/27/13	06/27/13 EAL	SW846 6010C ¹	SW846 3010A ³
Magnesium	30400	5000	59	ug/l	1	06/27/13	06/27/13 EAL	SW846 6010C ¹	SW846 3010A ³
Manganese	682	15	0.81	ug/l	1	06/27/13	06/27/13 EAL	SW846 6010C ¹	SW846 3010A ³
Mercury	0.067 U	0.20	0.067	ug/l	1	06/28/13	07/01/13 SA	SW846 7470A ²	SW846 7470A ⁴
Nickel	31.3 B	40	0.57	ug/l	1	06/27/13	06/27/13 EAL	SW846 6010C ¹	SW846 3010A ³
Potassium	7000	5000	160	ug/l	1	06/27/13	06/27/13 EAL	SW846 6010C ¹	SW846 3010A ³
Selenium	4.8 U	10	4.8	ug/l	1	06/27/13	06/27/13 EAL	SW846 6010C ¹	SW846 3010A ³
Silver	1.0 U	5.0	1.0	ug/l	1	06/27/13	06/27/13 EAL	SW846 6010C ¹	SW846 3010A ³
Sodium	20700	5000	60	ug/l	1	06/27/13	06/27/13 EAL	SW846 6010C ¹	SW846 3010A ³
Thallium	1.9 U	5.0	1.9	ug/l	1	06/27/13	06/27/13 EAL	SW846 6010C ¹	SW846 3010A ³
Vanadium	2.8 U	10	2.8	ug/l	1	06/27/13	06/27/13 EAL	SW846 6010C ¹	SW846 3010A ³
Zinc	17.8 B	20	0.50	ug/l	1	06/27/13	06/27/13 EAL	SW846 6010C ¹	SW846 3010A ³

(1) Instrument QC Batch: MA15808

(2) Instrument QC Batch: MA15810

(3) Prep QC Batch: MP21255

(4) Prep QC Batch: MP21274

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW-2	Date Sampled:	06/24/13
Lab Sample ID:	MC22017-18	Date Received:	06/25/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L75332.D	1	07/05/13	KR	n/a	n/a	MSL3506
Run #2							

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

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.33	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.6	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.59	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.62	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.48	ug/l	
75-00-3	Chloroethane	ND	2.0	0.84	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	1.4	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.45	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.29	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
100-42-5	Styrene	ND	5.0	0.49	ug/l	
79-34-5	1,1,1,2-Tetrachloroethane	ND	0.50	0.42	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-2		Date Sampled: 06/24/13
Lab Sample ID: MC22017-18		Date Received: 06/25/13
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8260B		
Project: Auburn EPA Brownfield Phase II, Auburn, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		70-130%
2037-26-5	Toluene-D8	109%		70-130%
460-00-4	4-Bromofluorobenzene	116%		70-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.18
4

Report of Analysis

Client Sample ID: MW-2		
Lab Sample ID: MC22017-18		Date Sampled: 06/24/13
Matrix: AQ - Ground Water		Date Received: 06/25/13
Method: SW846 8270C SW846 3510C		Percent Solids: n/a
Project: Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W13520.D	1	07/01/13	KR	06/28/13	OP33811	MSW618
Run #2							

Run #	Initial Volume	Final Volume
Run #1	960 ml	1.0 ml
Run #2		

BN STARS List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	1.2	2.1	0.24	ug/l	J
208-96-8	Acenaphthylene	ND	2.1	0.58	ug/l	
120-12-7	Anthracene	0.38	2.1	0.22	ug/l	J
56-55-3	Benzo(a)anthracene	ND	2.1	0.22	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.1	0.22	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.1	0.24	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.1	0.27	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.1	0.28	ug/l	
218-01-9	Chrysene	ND	2.1	0.21	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.1	0.22	ug/l	
206-44-0	Fluoranthene	0.31	2.1	0.23	ug/l	J
86-73-7	Fluorene	1.4	2.1	0.25	ug/l	J
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.1	0.28	ug/l	
91-20-3	Naphthalene	0.54	2.1	0.18	ug/l	J
85-01-8	Phenanthrene	2.0	2.1	0.22	ug/l	J
129-00-0	Pyrene	ND	2.1	0.23	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	38%		30-130%
321-60-8	2-Fluorobiphenyl	38%		30-130%
1718-51-0	Terphenyl-d14	54%		30-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.18
4

Report of Analysis

Client Sample ID: MW-2	Date Sampled: 06/24/13
Lab Sample ID: MC22017-18	Date Received: 06/25/13
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8082 SW846 3510C	
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ81740.D	1	06/28/13	CZ	06/26/13	OP33775	GYZ7200
Run #2							

Run #	Initial Volume	Final Volume
Run #1	900 ml	5.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.28	0.076	ug/l	
11104-28-2	Aroclor 1221	ND	0.28	0.080	ug/l	
11141-16-5	Aroclor 1232	ND	0.28	0.18	ug/l	
53469-21-9	Aroclor 1242	ND	0.28	0.11	ug/l	
12672-29-6	Aroclor 1248	ND	0.28	0.17	ug/l	
11097-69-1	Aroclor 1254	ND	0.28	0.081	ug/l	
11096-82-5	Aroclor 1260	ND	0.28	0.069	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	50%		30-150%
877-09-8	Tetrachloro-m-xylene	75%		30-150%
2051-24-3	Decachlorobiphenyl	56%		30-150%
2051-24-3	Decachlorobiphenyl	66%		30-150%

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

4.18
4

Report of Analysis

Client Sample ID: MW-2	Date Sampled: 06/24/13
Lab Sample ID: MC22017-18	Date Received: 06/25/13
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	40 U	200	40	ug/l	1	06/27/13	06/27/13 EAL	SW846 6010C ¹	SW846 3010A ³
Antimony	1.9 U	6.0	1.9	ug/l	1	06/27/13	06/27/13 EAL	SW846 6010C ¹	SW846 3010A ³
Arsenic	2.9 U	4.0	2.9	ug/l	1	06/27/13	06/27/13 EAL	SW846 6010C ¹	SW846 3010A ³
Barium	21.2 B	50	0.81	ug/l	1	06/27/13	06/27/13 EAL	SW846 6010C ¹	SW846 3010A ³
Beryllium	0.25 U	4.0	0.25	ug/l	1	06/27/13	06/27/13 EAL	SW846 6010C ¹	SW846 3010A ³
Cadmium	0.50 U	4.0	0.50	ug/l	1	06/27/13	06/27/13 EAL	SW846 6010C ¹	SW846 3010A ³
Calcium	349000	5000	38	ug/l	1	06/27/13	06/27/13 EAL	SW846 6010C ¹	SW846 3010A ³
Chromium	1.4 U	10	1.4	ug/l	1	06/27/13	06/27/13 EAL	SW846 6010C ¹	SW846 3010A ³
Cobalt	2.6 B	50	0.40	ug/l	1	06/27/13	06/27/13 EAL	SW846 6010C ¹	SW846 3010A ³
Copper	7.0 U	25	7.0	ug/l	1	06/27/13	06/27/13 EAL	SW846 6010C ¹	SW846 3010A ³
Iron	112000	100	20	ug/l	1	06/27/13	06/27/13 EAL	SW846 6010C ¹	SW846 3010A ³
Lead	4.4 B	5.0	1.7	ug/l	1	06/27/13	06/27/13 EAL	SW846 6010C ¹	SW846 3010A ³
Magnesium	46200	5000	59	ug/l	1	06/27/13	06/27/13 EAL	SW846 6010C ¹	SW846 3010A ³
Manganese	2430	15	0.81	ug/l	1	06/27/13	06/27/13 EAL	SW846 6010C ¹	SW846 3010A ³
Mercury	0.10 B	0.20	0.067	ug/l	1	06/28/13	07/01/13 SA	SW846 7470A ²	SW846 7470A ⁴
Nickel	4.9 B	40	0.57	ug/l	1	06/27/13	06/27/13 EAL	SW846 6010C ¹	SW846 3010A ³
Potassium	8460	5000	160	ug/l	1	06/27/13	06/27/13 EAL	SW846 6010C ¹	SW846 3010A ³
Selenium	4.8 U	10	4.8	ug/l	1	06/27/13	06/27/13 EAL	SW846 6010C ¹	SW846 3010A ³
Silver	1.0 U	5.0	1.0	ug/l	1	06/27/13	06/27/13 EAL	SW846 6010C ¹	SW846 3010A ³
Sodium	19200	5000	60	ug/l	1	06/27/13	06/27/13 EAL	SW846 6010C ¹	SW846 3010A ³
Thallium	1.9 U	5.0	1.9	ug/l	1	06/27/13	06/27/13 EAL	SW846 6010C ¹	SW846 3010A ³
Vanadium	2.8 U	10	2.8	ug/l	1	06/27/13	06/27/13 EAL	SW846 6010C ¹	SW846 3010A ³
Zinc	8.0 B	20	0.50	ug/l	1	06/27/13	06/27/13 EAL	SW846 6010C ¹	SW846 3010A ³

(1) Instrument QC Batch: MA15808

(2) Instrument QC Batch: MA15810

(3) Prep QC Batch: MP21255

(4) Prep QC Batch: MP21274

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW-1	Date Sampled:	06/24/13
Lab Sample ID:	MC22017-19	Date Received:	06/25/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L75333.D	1	07/05/13	KR	n/a	n/a	MSL3506
Run #2							

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

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	8.2	10	2.8	ug/l	J
71-43-2	Benzene	ND	0.50	0.45	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.33	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.6	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.59	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.62	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.48	ug/l	
75-00-3	Chloroethane	ND	2.0	0.84	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	1.4	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.45	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.29	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
100-42-5	Styrene	ND	5.0	0.49	ug/l	
79-34-5	1,1,1,2-Tetrachloroethane	ND	0.50	0.42	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-1		Date Sampled: 06/24/13
Lab Sample ID: MC22017-19		Date Received: 06/25/13
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8260B		
Project: Auburn EPA Brownfield Phase II, Auburn, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		70-130%
2037-26-5	Toluene-D8	106%		70-130%
460-00-4	4-Bromofluorobenzene	116%		70-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID: MW-1	Date Sampled: 06/24/13
Lab Sample ID: MC22017-19	Date Received: 06/25/13
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8270C SW846 3510C	
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W13521.D	1	07/01/13	KR	06/28/13	OP33811	MSW618
Run #2							

Run #	Initial Volume	Final Volume
Run #1	860 ml	1.0 ml
Run #2		

BN STARS List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.54	2.3	0.27	ug/l	J
208-96-8	Acenaphthylene	ND	2.3	0.65	ug/l	
120-12-7	Anthracene	0.24	2.3	0.24	ug/l	J
56-55-3	Benzo(a)anthracene	ND	2.3	0.25	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.3	0.24	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.3	0.27	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.3	0.30	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.3	0.31	ug/l	
218-01-9	Chrysene	ND	2.3	0.23	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.3	0.25	ug/l	
206-44-0	Fluoranthene	ND	2.3	0.26	ug/l	
86-73-7	Fluorene	0.42	2.3	0.28	ug/l	J
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.3	0.32	ug/l	
91-20-3	Naphthalene	0.21	2.3	0.20	ug/l	J
85-01-8	Phenanthrene	1.3	2.3	0.24	ug/l	J
129-00-0	Pyrene	ND	2.3	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	66%		30-130%
321-60-8	2-Fluorobiphenyl	55%		30-130%
1718-51-0	Terphenyl-d14	71%		30-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

4.19
4

Report of Analysis

Client Sample ID:	MW-1	
Lab Sample ID:	MC22017-19	Date Sampled: 06/24/13
Matrix:	AQ - Ground Water	Date Received: 06/25/13
Method:	SW846 8082 SW846 3510C	Percent Solids: n/a
Project:	Auburn EPA Brownfield Phase II, Auburn, NY	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ81741.D	1	06/28/13	CZ	06/26/13	OP33775	GYZ7200
Run #2							

Run #	Initial Volume	Final Volume
Run #1	980 ml	5.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.26	0.070	ug/l	
11104-28-2	Aroclor 1221	ND	0.26	0.074	ug/l	
11141-16-5	Aroclor 1232	ND	0.26	0.17	ug/l	
53469-21-9	Aroclor 1242	ND	0.26	0.10	ug/l	
12672-29-6	Aroclor 1248	ND	0.26	0.15	ug/l	
11097-69-1	Aroclor 1254	ND	0.26	0.074	ug/l	
11096-82-5	Aroclor 1260	ND	0.26	0.064	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	69%		30-150%
877-09-8	Tetrachloro-m-xylene	91%		30-150%
2051-24-3	Decachlorobiphenyl	63%		30-150%
2051-24-3	Decachlorobiphenyl	73%		30-150%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID: MW-1	Date Sampled: 06/24/13
Lab Sample ID: MC22017-19	Date Received: 06/25/13
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: Auburn EPA Brownfield Phase II, Auburn, NY	

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	40 U	200	40	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Antimony	1.9 U	6.0	1.9	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Arsenic	2.9 U	4.0	2.9	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Barium	61.5	50	0.81	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Beryllium	0.25 U	4.0	0.25	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Cadmium	0.50 U	4.0	0.50	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Calcium	163000	5000	38	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Chromium	1.4 U	10	1.4	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Cobalt	0.40 U	50	0.40	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Copper	7.0 U	25	7.0	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Iron	7090	100	20	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Lead	8.6	5.0	1.7	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Magnesium	21000	5000	59	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Manganese	684	15	0.81	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Mercury	0.067 U	0.20	0.067	ug/l	1	06/28/13	07/01/13	SA SW846 7470A ²	SW846 7470A ⁴
Nickel	0.80 B	40	0.57	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Potassium	3810 B	5000	160	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Selenium	4.8 U	10	4.8	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Silver	1.0 U	5.0	1.0	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Sodium	17700	5000	60	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Thallium	1.9 U	5.0	1.9	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Vanadium	2.8 U	10	2.8	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Zinc	29.7	20	0.50	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³

(1) Instrument QC Batch: MA15808

(2) Instrument QC Batch: MA15810

(3) Prep QC Batch: MP21255

(4) Prep QC Batch: MP21274

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	FIELD BLANK	Date Sampled:	06/24/13
Lab Sample ID:	MC22017-20	Date Received:	06/25/13
Matrix:	AQ - Field Blank Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L75318.D	1	07/05/13	KR	n/a	n/a	MSL3506
Run #2							

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

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.33	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.6	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.59	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.62	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.48	ug/l	
75-00-3	Chloroethane	ND	2.0	0.84	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	1.4	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.45	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.29	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
100-42-5	Styrene	ND	5.0	0.49	ug/l	
79-34-5	1,1,1,2-Tetrachloroethane	ND	0.50	0.42	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: FIELD BLANK		
Lab Sample ID: MC22017-20		Date Sampled: 06/24/13
Matrix: AQ - Field Blank Water		Date Received: 06/25/13
Method: SW846 8260B		Percent Solids: n/a
Project: Auburn EPA Brownfield Phase II, Auburn, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		70-130%
2037-26-5	Toluene-D8	108%		70-130%
460-00-4	4-Bromofluorobenzene	120%		70-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID: FIELD BLANK		
Lab Sample ID: MC22017-20		Date Sampled: 06/24/13
Matrix: AQ - Field Blank Water		Date Received: 06/25/13
Method: SW846 8270C SW846 3510C		Percent Solids: n/a
Project: Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W13522.D	1	07/01/13	KR	06/28/13	OP33811	MSW618
Run #2							

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

BN STARS List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	2.0	0.23	ug/l	
208-96-8	Acenaphthylene	ND	2.0	0.57	ug/l	
120-12-7	Anthracene	ND	2.0	0.21	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.0	0.22	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.0	0.21	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.0	0.23	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.0	0.26	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.0	0.27	ug/l	
218-01-9	Chrysene	ND	2.0	0.21	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.0	0.22	ug/l	
206-44-0	Fluoranthene	ND	2.0	0.23	ug/l	
86-73-7	Fluorene	ND	2.0	0.24	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.0	0.28	ug/l	
91-20-3	Naphthalene	ND	2.0	0.17	ug/l	
85-01-8	Phenanthrene	ND	2.0	0.21	ug/l	
129-00-0	Pyrene	ND	2.0	0.23	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	70%		30-130%
321-60-8	2-Fluorobiphenyl	65%		30-130%
1718-51-0	Terphenyl-d14	78%		30-130%

ND = Not detected MDL - Method Detection Limit
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J = Indicates an estimated value
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 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FIELD BLANK	Date Sampled:	06/24/13
Lab Sample ID:	MC22017-20	Date Received:	06/25/13
Matrix:	AQ - Field Blank Water	Percent Solids:	n/a
Method:	SW846 8082 SW846 3510C		
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ81743.D	1	06/28/13	CZ	06/26/13	OP33775	GYZ7200
Run #2							

Run #	Initial Volume	Final Volume
Run #1	940 ml	5.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.27	0.073	ug/l	
11104-28-2	Aroclor 1221	ND	0.27	0.077	ug/l	
11141-16-5	Aroclor 1232	ND	0.27	0.18	ug/l	
53469-21-9	Aroclor 1242	ND	0.27	0.11	ug/l	
12672-29-6	Aroclor 1248	ND	0.27	0.16	ug/l	
11097-69-1	Aroclor 1254	ND	0.27	0.077	ug/l	
11096-82-5	Aroclor 1260	ND	0.27	0.066	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	74%		30-150%
877-09-8	Tetrachloro-m-xylene	86%		30-150%
2051-24-3	Decachlorobiphenyl	62%		30-150%
2051-24-3	Decachlorobiphenyl	74%		30-150%

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

4.20
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Report of Analysis

Client Sample ID:	FIELD BLANK	Date Sampled:	06/24/13
Lab Sample ID:	MC22017-20	Date Received:	06/25/13
Matrix:	AQ - Field Blank Water	Percent Solids:	n/a
Project:	Auburn EPA Brownfield Phase II, Auburn, NY		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	40 U	200	40	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Antimony	1.9 U	6.0	1.9	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Arsenic	2.9 U	4.0	2.9	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Barium	0.81 U	50	0.81	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Beryllium	0.25 U	4.0	0.25	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Cadmium	0.50 U	4.0	0.50	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Calcium	38 U	5000	38	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Chromium	1.4 U	10	1.4	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Cobalt	0.40 U	50	0.40	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Copper	7.0 U	25	7.0	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Iron	20 U	100	20	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Lead	1.7 U	5.0	1.7	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Magnesium	59 U	5000	59	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Manganese	0.81 U	15	0.81	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Mercury	0.067 U	0.20	0.067	ug/l	1	06/28/13	07/01/13	SA SW846 7470A ²	SW846 7470A ⁴
Nickel	0.57 U	40	0.57	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Potassium	160 U	5000	160	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Selenium	4.8 U	10	4.8	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Silver	1.0 U	5.0	1.0	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Sodium	60 U	5000	60	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Thallium	1.9 U	5.0	1.9	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Vanadium	2.8 U	10	2.8	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³
Zinc	0.50 U	20	0.50	ug/l	1	06/27/13	06/27/13	EAL SW846 6010C ¹	SW846 3010A ³

(1) Instrument QC Batch: MA15808

(2) Instrument QC Batch: MA15810

(3) Prep QC Batch: MP21255

(4) Prep QC Batch: MP21274

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Misc. Forms

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Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

FED-EX Tracking #	Boiler Order Control #
Accutest Quote #	Accutest Job # MC22017

Client / Reporting Information		Project Information				Requested Analysis (see TEST CODE sheet)												Matrix Codes
Company Name Barton Weyandize (BTL)		Project Name Auburn Brownfield Investigation Corney				<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);"> EM8260 STABS EM9270 STABS EM9010 TAL Metals EM9082 PCB's </div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);"> EM8260 STABS EM9270 STABS EM9010 TAL Metals EM9082 PCB's </div> </div>												DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SD - Soil SL - Sludge SED - Sediment OL - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank
Street Address 11 Centre Park Suite 207		Street 42 Wadsworth St.																
City State Zip Cory Lesiak Rochester NY 14609		City State Zip Auburn NY																
Project Contact (584) 325-7140		Project # 554.046.001																
Sampler(s) Name(s) Phone # Brian Ingrath (BTL)		Project Manager Cory Lesiak																
Field ID / Point of Collection		MECHID / Vol #	Date		Time	Sampled By	Matrix	# of bottles	GC	HNO3	H2SO4	NONE	CL/ML	MESH	ENCLOSURE	Bottle	LAB USE ONLY	
-8 PMW-1 MS/MSD			6/20/13		16:20	BTL	GW	21	9	3	9					X		
-9 Field Blank			6/21/13		10:04	BTL	FB	7	3	1	3					X		
-10 PMW-2			6/21/13		11:15	BTL	GW	3	3	1	3					X		
-11 PMW-3			6/21/13		13:56	BTL	GW	7	3	1	3					X		

FED-EX Tracking #	Order/Order Client # <u>300</u>
Accutest Quote #	Accutest Job # <u>MC22017</u>

Client / Reporting Information		Project Information										Requested Analysis (see TEST CODE sheet)										Matrix Codes																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
Company Name <u>Barton & Loyuidice (B+L)</u>		Project Name <u>Auburn Brownfield Investigation Grant</u>										<div style="display: flex; flex-direction: column; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-weight: bold;">EPA 8260 STARS</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-weight: bold;">EPA 8160 STARS</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-weight: bold;">EPA 6010B TAL Metals</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-weight: bold;">EPA 8082 PCB's</div> </div>										DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OL - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
Street Address <u>11 Centre Park Suite 203</u>		Street <u>2-58 Wadsworth St.</u>																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
City State Zip <u>Rochester NY 14614</u>		City State Zip <u>Auburn, NY</u>																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
Project Contact <u>Greg Lesniak</u>		Billing Information (if different from Report to) Company Name <u>B+L</u>																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
Phone # <u>(585) 325-7140</u>		E-mail		Project # <u>554.046.001</u>		Street Address		City		State		Zip																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
Sample Name(s) <u>Kevin J. Lato (Bsn)</u>		Phone # <u>(585) 325-7140</u>		Project Manager <u>Greg Lesniak</u>		Attention:		PO#																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
Accutest Sample #	Field ID / Point of Collection	MECH/DI Vial #	Date	Time	Sampled by	Matrix	# of bottles	PC1	PC2	PC3	PC4	PC5	PC6	PC7	PC8	PC9	PC10	PC11	PC12	PC13	PC14	PC15	PC16	PC17	PC18	PC19	PC20	PC21	PC22	PC23	PC24	PC25	PC26	PC27	PC28	PC29	PC30	PC31	PC32	PC33	PC34	PC35	PC36	PC37	PC38	PC39	PC40	PC41	PC42	PC43	PC44	PC45	PC46	PC47	PC48	PC49	PC50	PC51	PC52	PC53	PC54	PC55	PC56	PC57	PC58	PC59	PC60	PC61	PC62	PC63	PC64	PC65	PC66	PC67	PC68	PC69	PC70	PC71	PC72	PC73	PC74	PC75	PC76	PC77	PC78	PC79	PC80	PC81	PC82	PC83	PC84	PC85	PC86	PC87	PC88	PC89	PC90	PC91	PC92	PC93	PC94	PC95	PC96	PC97	PC98	PC99	PC100	PC101	PC102	PC103	PC104	PC105	PC106	PC107	PC108	PC109	PC110	PC111	PC112	PC113	PC114	PC115	PC116	PC117	PC118	PC119	PC120	PC121	PC122	PC123	PC124	PC125	PC126	PC127	PC128	PC129	PC130	PC131	PC132	PC133	PC134	PC135	PC136	PC137	PC138	PC139	PC140	PC141	PC142	PC143	PC144	PC145	PC146	PC147	PC148	PC149	PC150	PC151	PC152	PC153	PC154	PC155	PC156	PC157	PC158	PC159	PC160	PC161	PC162	PC163	PC164	PC165	PC166	PC167	PC168	PC169	PC170	PC171	PC172	PC173	PC174	PC175	PC176	PC177	PC178	PC179	PC180	PC181	PC182	PC183	PC184	PC185	PC186	PC187	PC188	PC189	PC190	PC191	PC192	PC193	PC194	PC195	PC196	PC197	PC198	PC199	PC200	PC201	PC202	PC203	PC204	PC205	PC206	PC207	PC208	PC209	PC210	PC211	PC212	PC213	PC214	PC215	PC216	PC217	PC218	PC219	PC220	PC221	PC222	PC223	PC224	PC225	PC226	PC227	PC228	PC229	PC230	PC231	PC232	PC233	PC234	PC235	PC236	PC237	PC238	PC239	PC240	PC241	PC242	PC243	PC244	PC245	PC246	PC247	PC248	PC249	PC250	PC251	PC252	PC253	PC254	PC255	PC256	PC257	PC258	PC259	PC260	PC261	PC262	PC263	PC264	PC265	PC266	PC267	PC268	PC269	PC270	PC271	PC272	PC273	PC274	PC275	PC276	PC277	PC278	PC279	PC280	PC281	PC282	PC283	PC284	PC285	PC286	PC287	PC288	PC289	PC290	PC291	PC292	PC293	PC294	PC295	PC296	PC297	PC298	PC299	PC300	PC301	PC302	PC303	PC304	PC305	PC306	PC307	PC308	PC309	PC310	PC311	PC312	PC313	PC314	PC315	PC316	PC317	PC318	PC319	PC320	PC321	PC322	PC323	PC324	PC325	PC326	PC327	PC328	PC329	PC330	PC331	PC332	PC333	PC334	PC335	PC336	PC337	PC338	PC339	PC340	PC341	PC342	PC343	PC344	PC345	PC346	PC347	PC348	PC349	PC350	PC351	PC352	PC353	PC354	PC355	PC356	PC357	PC358	PC359	PC360	PC361	PC362	PC363	PC364	PC365	PC366	PC367	PC368	PC369	PC370	PC371	PC372	PC373	PC374	PC375	PC376	PC377	PC378	PC379	PC380	PC381	PC382	PC383	PC384	PC385	PC386	PC387	PC388	PC389	PC390	PC391	PC392	PC393	PC394	PC395	PC396	PC397	PC398	PC399	PC400	PC401	PC402	PC403	PC404	PC405	PC406	PC407	PC408	PC409	PC410	PC411	PC412	PC413	PC414	PC415	PC416	PC417	PC418	PC419	PC420	PC421	PC422	PC423	PC424	PC425	PC426	PC427	PC428	PC429	PC430	PC431	PC432	PC433	PC434	PC435	PC436	PC437	PC438	PC439	PC440	PC441	PC442	PC443	PC444	PC445	PC446	PC447	PC448	PC449	PC450	PC451	PC452	PC453	PC454	PC455	PC456	PC457	PC458	PC459	PC460	PC461	PC462	PC463	PC464	PC465	PC466	PC467	PC468	PC469	PC470	PC471	PC472	PC473	PC474	PC475	PC476	PC477	PC478	PC479	PC480	PC481	PC482	PC483	PC484	PC485	PC486	PC487	PC488	PC489	PC490	PC491	PC492	PC493	PC494	PC495	PC496	PC497	PC498	PC499	PC500	PC501	PC502	PC503	PC504	PC505	PC506	PC507	PC508	PC509	PC510	PC511	PC512	PC513	PC514	PC515	PC516	PC517	PC518	PC519	PC520	PC521	PC522	PC523	PC524	PC525	PC526	PC527	PC528	PC529	PC530	PC531	PC532	PC533	PC534	PC535	PC536	PC537	PC538	PC539	PC540	PC541	PC542	PC543	PC544	PC545	PC546	PC547	PC548	PC549	PC550	PC551	PC552	PC553	PC554	PC555	PC556	PC557	PC558	PC559	PC560	PC561	PC562	PC563	PC564	PC565	PC566	PC567	PC568	PC569	PC570	PC571	PC572	PC573	PC574	PC575	PC576	PC577	PC578	PC579	PC580	PC581	PC582	PC583	PC584	PC585	PC586	PC587	PC588	PC589	PC590	PC591	PC592	PC593	PC594	PC595	PC596	PC597	PC598	PC599	PC600	PC601	PC602	PC603	PC604	PC605	PC606	PC607	PC608	PC609	PC610	PC611	PC612	PC613	PC614	PC615	PC616	PC617	PC618	PC619	PC620	PC621	PC622	PC623	PC624	PC625	PC626	PC627	PC628	PC629	PC630	PC631	PC632	PC633	PC634	PC635	PC636	PC637	PC638	PC639	PC640	PC641	PC642	PC643	PC644	PC645	PC646	PC647	PC648	PC649	PC650	PC651	PC652	PC653	PC654	PC655	PC656	PC657	PC658	PC659	PC660	PC661	PC662	PC663	PC664	PC665	PC666	PC667	PC668	PC669	PC670	PC671	PC672	PC673	PC674	PC675	PC676	PC677	PC678	PC679	PC680	PC681	PC682	PC683	PC684	PC685	PC686	PC687	PC688	PC689	PC690	PC691	PC692	PC693	PC694	PC695	PC696	PC697	PC698	PC699	PC700	PC701	PC702	PC703	PC704	PC705	PC706	PC707	PC708	PC709	PC710	PC711	PC712	PC713	PC714	PC715	PC716	PC717	PC718	PC719	PC720	PC721	PC722	PC723	PC724	PC725	PC726	PC727	PC728	PC729	PC730	PC731	PC732	PC733	PC734	PC735	PC736	PC737	PC738	PC739	PC740	PC741	PC742	PC743	PC744	PC745	PC746	PC747	PC748	PC749	PC750	PC751	PC752	PC753	PC754	PC755	PC756	PC757	PC758	PC759	PC760	PC761	PC762	PC763	PC764	PC765	PC766	PC767	PC768	PC769	PC770	PC771	PC772	PC773	PC774	PC775	PC776	PC777	PC778	PC779	PC780	PC781	PC782	PC783	PC784	PC785	PC786	PC787	PC788	PC789	PC790	PC791	PC792	PC793	PC794	PC795	PC796	PC797	PC798	PC799	PC800	PC801	PC802	PC803	PC804	PC805	PC806	PC807	PC808	PC809	PC810	PC811	PC812	PC813	PC814	PC815	PC816	PC817	PC818	PC819	PC820	PC821	PC822	PC823	PC824	PC825	PC826	PC827	PC828	PC829	PC830	PC831	PC832	PC833	PC834	PC835	PC836	PC837	PC838	PC839	PC840	PC841	PC842	PC843	PC844	PC845	PC846	PC847	PC848	PC849	PC850	PC851	PC852	PC853	PC854	PC855	PC856	PC857	PC858	PC

FED-EX Tracking #	Boiler Order Control #
Accutest Quote #	Accutest Job #
	MC22017

Client / Reporting Information		Project Information		Requested Analysis (see TEST CODE sheet)										Matrix Codes				
Company Name <i>Barton & Lequidice</i>		Project Name <i>Auburn Braumbell</i>		<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);"> 8260 TCL 8220 STARS 8082 PLB TAL Metals </div> <div style="font-size: small;"> DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank </div> </div>										LAB USE ONLY				
Street Address <i>11 Centre Park</i>		Street <i>1-15 Palaski</i>																
City, State, Zip <i>Rochester NY</i>		City, State, Zip <i>Auburn</i>																
Project Contact <i>Greg Lesnizk</i>		Project # <i>554.046.001</i>																
Phone # <i>585-325-7190</i>		Client PO#																
Sample(s) Name(s) <i>Greg Lesnizk</i>		Project Manager		Attention:		PO#												
Accutest Sample #	Field ID / Point of Collection	Matrix	Date	Time	Sampled by	Matrix	# of bottles	Number of preserved bottles										
								PCB	PEB	PEB3	PEB4	NOPE	D/Water	MECH	ENCORE	Beutline		
17	MW-3	GW	6-24-13	14:12	GW	GW	7	3	1	3							X	
18	MW-2	GW	6-24-13	15:00	GW	GW	7	3	1	3							X	
19	MW-1	GW	6-24-13	15:40	GW	GW	7	3	1	3							X	
20	Field Blank	EB	6-24-13	14:40	EB	EB	7	3	1	3							X	
17C, 5F, 3H2																		

Turnaround Time (Business days)		Approved By (Accutest PM): / Date:		Data Deliverable Information		Comments / Special Instructions	
<input checked="" type="checkbox"/> Std. 10 Business Days				<input type="checkbox"/> Commercial "A" (Level 1)	<input type="checkbox"/> NYASP Category A	Combine this check with 6-19, 8-20, 6-21	
<input type="checkbox"/> Std. 5 Business Days (By Contract only)				<input type="checkbox"/> Commercial "B" (Level 2)	<input checked="" type="checkbox"/> NYASP Category B		
<input type="checkbox"/> 5 Day RUSH				<input type="checkbox"/> FULLT1 (Level 3+4)	<input type="checkbox"/> State Forms	SYRACUSE SC	
<input type="checkbox"/> 3 Day EMERGENCY				<input type="checkbox"/> CT RCP	<input type="checkbox"/> EDD Format		
<input type="checkbox"/> 2 Day EMERGENCY				<input type="checkbox"/> MA MCP	<input type="checkbox"/> Other		
<input type="checkbox"/> 1 Day EMERGENCY				Commercial "A" = Results Only Commercial "B" = Results + QC Summary			

Emergency & Rush T/A data available VIA Lablink

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler: <i>G. V. Hall</i>	Date Time: <i>6/24/13 16:30</i>	Received By: <i>[Signature]</i>	Relinquished By: <i>[Signature]</i>	Date Time: <i>2</i>	Received By: <i>2</i>
Relinquished by Sampler: <i>F. O. X</i>	Date Time: <i>6-25-13</i>	Received By: <i>[Signature]</i>	Relinquished By: <i>[Signature]</i>	Date Time: <i>4</i>	Received By: <i>4</i>
Relinquished by: <i>5</i>	Date Time:	Received By: <i>5</i>	Custody Seal #	<input type="checkbox"/> Intact <input type="checkbox"/> Not Intact	Preserved where applicable <input type="checkbox"/>

On Ice Cooler Temp.

2.2°C

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Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC22017 **Client:** BARTON & LOGUIDICE **Immediate Client Services Action Required:** No
Date / Time Received: 6/25/2013 **Delivery Method:** _____ **Client Service Action Required at Login:** No
Project: AUBURN BROWNFIELD **No. Coolers:** 1 **Airbill #'s:** _____

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

<u>Cooler Temperature</u>	<u>Y or N</u>
1. Temp criteria achieved:	<input checked="" type="checkbox"/> <input type="checkbox"/>
2. Cooler temp verification:	Infrared gun
3. Cooler media:	Ice (bag)

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

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

<u>Sample Integrity - Condition</u>	<u>Y</u>	<u>or</u>	<u>N</u>
1. Sample recvd within HT:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. All containers accounted for:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3. Condition of sample:		Intact	

<u>Sample Integrity - Instructions</u>	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Analysis requested is clear:	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
2. Bottles received for unspecified tests:	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
3. Sufficient volume recvd for analysis:	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
4. Compositing instructions clear:	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
5. Filtering instructions clear:	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>

Comments

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