Former ALCO-Maxon Site – Parcel A
Brownfield Cleanup Project

City of Schenectady
Schenectady County, New York

Parcel A
Spill 1604483
Remedial Work Plan
(RWP)

New York State
Brownfield Cleanup Program
Site No. C447042

August 2016

Barton & Loguidice

Former ALCO-Maxon Site – Parcel A
Brownfield Cleanup Project
City of Schenectady

Spill 1604483 Remedial Work Plan
Site No. C447042

August 2016

Prepared For:

Maxon ALCO Holdings, LLC
540 Broadway
Albany, New York 12207

Prepared By:

Barton & Loguidice, Inc.
10 Airline Drive, Suite 200
Albany, New York 12205

I, the undersigned engineer, certify that I am currently a NYS registered professional engineer and that this Remedial Work Plan was prepared in accordance with all applicable statutes and regulations, and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

Scott D. Nostrand, P.E.

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1.0 Introduction

Maxon ALCO Holdings, LLC (MAH) entered into Brownfield Cleanup Agreements (BCA) through the New York State Department of Environmental Conservation's (NYSDEC) Brownfield Cleanup Program (BCP) for the property located at 301 Nott Street in Schenectady, New York, identified as the ALCO Site (Property or Site) and historically known as the Nott Street Industrial Park (Park). In 2010, after purchasing the property, the Volunteer (Maxon-ALCO Holdings) divided the Property into three parcels: Parcel A, Parcel B and Parcel C (Site Nos. C447042, C447043, and C447044, see Figure 1) and each Parcel was deemed eligible for the BCP and subject to separate BCAs. In November of 2013, MAH proposed the reconfiguration of Parcels B and C to NYSDEC to more efficiently proceed with potential Interim Remedial Measures and redevelopment planning; the proposed reconfiguration was approved by NYSDEC by letter dated December 23, 2013.

The purpose of the BCP is to encourage voluntary remediation of brownfield sites for reuse and development. This Spill 1604483 Work Plan is preceded by Remedial Investigation (RI) and Supplemental Remedial Investigation (SRI) Reports, which characterized impacts at the site resulting from historical industrial usage, a Remedial Work Plan (RWP) and Alternatives Analysis Report (AAR), which evaluated and recommended remedial alternatives for the site, and an Excavation Work Plan (EXC-WP) which provided the procedures to be followed when remedial and/or development activities require excavation into the existing site soils (prior to placement of cover soils). These reports have been reviewed and approved by NYSDEC in accordance with the BCA and the applicable portions of 6 NYCRR Part 375.

Ongoing site activities include excavation and re-armoring of the riverbank. During excavation on Parcel A, in the vicinity of former MW-04 and Spill 1604483, B&L personnel observed a sheen seeping from riprap along the bank of the Mohawk River adjacent to the Casino in Parcel A. Material from the vicinity of Spill 1604483 had been previously excavated and screened with a photoionization detector (PID). Based on field observations and field screening, PID readings <30 ppm, further material was not removed from the excavation. On July 11, 2016, oil-containment and absorbent booms were placed on the Mohawk River adjacent to the petroleum seeps and continually monitored.

While the placement of oil-containment booms has been effective, the persistence of the sheen indicates that a potential source from historic material may remain in the vicinity of former MW-04 and adjacent onshore area to Spill 1604483. Discussions with NYSDEC led to the opinion that further investigation of the onshore area adjacent to the seep was warranted. An investigation to characterize the extent of contamination associated with Spill 1604483 was conducted; this Remedial Work Plan presents a methodology for remediating the contaminated soils/sediments identified by the investigation.

1.1 Purpose of Report

The purpose of this work plan is to present the methodology for remediating the contaminated soils/sediments associated with Spill 1604483.

1.1.1 Report Organization

This report is organized into three sections (including this introduction section), with appropriate subsections within each division. Figures are located following the text, prior to the appendix in the back of the document.

2.0 Prior Remedial Activities

This section discusses the prior remedial activities for the spill area to be addressed. The area is shown on Figure 1.

2.1 Parcel A – Spill 1604483

The following is a summary of each environmental investigation conducted at the former ALCO Industrial property in the vicinity of Spill 1604483 from 1992 through 2009, in chronological order. Prior subsurface investigations at the site identified a zone of subsurface soils impacted by historical operations.

A review of the historical data suggests that former monitoring well MW-04, onshore adjacent to Spill 1604483, contained levels of one or more petroleum-related VOCs (benzene, ethylbenzene, toluene, xylenes, etc.) at concentrations above TOGS 1.1.1 standards when they were sampled on one or more occasions between 1992 and 1999. In addition, monitoring well MW-04 has historically contained free product.

However, MW-04, when sampled during the RI, did not contain any product or any petroleum-related VOCs above TOGS 1.1.1 standards. These results suggest that remedial efforts and/or natural attenuation have effectively eliminated VOCs impacts in the vicinity of the well. Furthermore, the presence of VOC TICs consisting primarily of petroleum-related compounds suggest that degradation/breakdown of petroleum has occurred in groundwater across the Site. These results indicate that free product recovery efforts have effectively reduced the contamination in the vicinity of MW-04.

Interim Investigation, July through August 1992 – Interim Report Tasks 1 Through 4 Drainage System Assessment, Nott Street Industrial Park (Dames & Moore, 1993)

During April 1992, Coyne Textile Services (CTS), with operations on Front Street, adjacent to the ALCO-Maxon Site, had a major fuel oil release that partially escaped into the municipal storm drain sewer system which flows under the Site, discharging to the Mohawk River at the College Creek Outfall. During inspection of this release, the New York State Department of Conservation (NYSDEC) reportedly observed petroleum discharges seeping from riprap along the bank of the Mohawk River adjacent to Buildings 320 and 324 in Parcel A. The NYSDEC requested that a subsurface investigation be performed onshore adjacent to the petroleum seep areas. SIC entered into an Order on Consent (OC) (Index No. R4-1338-92-05).

During July and August 1992, Dames & Moore performed an interim investigation on behalf of SIC. This investigation included evaluating the sewer system; visual site inspection and records review to evaluate potential on-site petroleum sources; and, collecting and analyzing three

Mohawk River surface water samples from locations adjacent to and downstream of the reported soil seep areas.

From this investigation, Dames & Moore recommended maintaining contaminant booms in the vicinity of the College Creek outfall; removing oil from surcharged manholes and catch basins; monitor sewer system for on- and off-site discharges of oil; and, exploring the feasibility of separating the Park from the City of Schenectady's storm sewer system. In addition, Dames & Moore found several on-site structures that could be potential petroleum sources. Finally, results of the Mohawk River water samples indicated that volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), pesticides, polychlorinated biphenyls (PCBs), and Priority Pollutant Metals (PP Metals) were not detected above the laboratory reporting limits.

Follow-up Investigation, July through September 1992 – Summary of Activities Related to Selected Issues Noted in NYSDEC Order on Consent, File No. R4-1338-92-05 (Dames & Moore, 1993)

To address various other issues, Dames & Moore performed several additional investigation activities from July through September 1992. The additional activities discussed in the report included analytical results of free-product samples collected from monitoring wells MW-01 and MW-04; analytical results from water samples collected from the storm sewer system near monitoring well MW-01; analytical results from additional water samples collected from the Mohawk River; free-product recovery from monitoring wells MW-01 and MW-04; identification and removal of PCB-containing transformers; and deployment of oil containment absorbent booms.

The results of this investigation indicated that the free-phase product in MW-01 and MW-04 was either highly weathered diesel oil or No. 2 fuel oil and resulted from historical operations in Building 324 or from former ASTs or USTs that were removed. These samples also contained other contaminants of concern (COCs) such as PCBs, VOCs, and metals. One storm sewer sample contained PCBs and an absorbent boom was placed in the manhole. Two water samples collected from the Mohawk River near MW-01 and MW-04 did not contain petroleum ID, PCBs, VOCs, SVOCs or PP Metals. Six downstream water samples collected from the Mohawk River did not contain PCBs.

Free-phase petroleum was hand bailed from wells MW-01 and MW-04 from October 1992 through December 1992 and January 1993, respectively. In January 1993, free-phase product skimming systems were installed and became operational in these wells.

Oil-containment and absorbent booms were placed on the Mohawk River adjacent to the petroleum seeps in November 1992. In addition, three transformers adjacent to Building 328 were removed and disposed of in February 1993.

Delineation Boring Program, October through November 1992 – Summary of Activities Related to Delineation Boring Program (Dames & Moore, 1993)

Dames & Moore performed a soil-boring program in October and November 1992. The scope of this work included the drilling and sampling of 29 soil borings. Four of these borings were converted to 6-inch diameter groundwater/product recovery wells (RW-01 through RW-04). These wells were installed in the immediate vicinity of areas where free-phase petroleum was detected. A step drawdown test and a pump test were performed on well RW-02. The pump test results indicated that a recovery system could be operated with one recovery well in each of the two identified areas of free-phase petroleum.

In addition to the four borings converted to recovery wells, 10 of the remaining 25 borings were converted to piezometers (P-1 through P-10). Following installation, free-phase petroleum was observed in three of the recovery wells (RW-01, RW-02, and RW-03) and in two of the piezometers (P-1 and P-3) adjacent to monitoring well MW-04. Soil sample results suggested that relatively elevated total petroleum hydrocarbons (TPH) concentrations were limited to an area along the edge of the river in the vicinity of monitoring well MW-04.

Surface, Subsurface & Groundwater Investigation, March through May 1994 – Summary of Investigations (Dames & Moore, 1994)

Additional investigation activities were performed between March 28 and May 5, 1994. The investigation was performed in three areas (Area 1 defined as the area near monitoring well MW-01 between Buildings 324 and 326/328 in Parcel A; Area 2 defined as the area near monitoring well MW-04 to the west of Building 322 and north of Building 320 in Parcels A and B; and Area 3 defined as the area near the former hazardous waste UST adjacent to the north side of Building 332 (which is within Parcel B) and consisted of the collection of eight surficial soil samples, installation of five shallow groundwater monitoring wells, installation of two intermediate-depth groundwater monitoring wells, and collection and analysis of groundwater samples from 12 monitoring wells.

The Summary Report concluded that based on the results of the investigation, it appeared that the extent of historic residual free-phase petroleum in the groundwater was limited to two small areas at the Park. One of these areas was at monitoring well MW-01 and the second area was at monitoring well MW-04. Further, the report concluded that the only area where PCBs had been detected was in the vicinity of monitoring well MW-01. Low levels of dissolved hydrocarbons had been detected at three areas at the Park: the vicinity of monitoring well MW-01, the vicinity of monitoring well MW-04, and an area west of Building 332 (monitoring well MW-12), where a UST was formerly located. In addition, Dames & Moore recommended continuing the operation of the temporary free-product skimming systems in monitoring wells MW-01 and MW-04.

Free Product Petroleum Recovery From Monitoring Wells MW-01 & MW-04, 1992-1994 – Summary of Activities Related to Selected Issues Noted in NYSDEC Order on Consent, File No. R4-1338-92-05 (Dames & Moore, 1993)

Hand bailing was initiated during October 1992 in response to the presence of free product in monitoring wells MW-01 and MW-04 and continued until December 1992 and January 1993, respectively. Temporary free-product skimming systems were installed in monitoring wells MW-01 and MW-04 in December 1992 and January 1993, respectively. The recovery systems were operated for approximately two years, when the systems were permanently shut down as a result of negligible product recovery. During this time period, approximately 550 gallons and 385 gallons of an oil/water mixture was collected and properly disposed of from monitoring wells MW-01 and MW-04, respectively. The oil collected from monitoring well MW-01 was sampled again for PCBs on September 14, 1994, and results indicated PCBs were detectable in the oil at a concentration of 0.003 ppm.

Deployment of Oil Containment & Absorbent Booms in the Mohawk River, 1992-2002 – Summary of Activities Related to Selected Issues Noted in NYSDEC Order on Consent, File No. R4-1338-92-05 (Dames & Moore, 1993)

The prior owner first deployed oil containment and absorbent booms during November 1992 and, on occasion, until 2001, adjacent to the locations where sheens were intermittently reported. Booms were deployed in the spring and retrieved in early winter before the Mohawk River iced over. This included the areas upstream and downstream of College Creek, where sheens associated with off-site sources had been observed in the past.

Monitoring Well MW-04 Pilot Bioventing System, December 1996 – Schenectady Industrial Corp., Nott Street Industrial Park, Draft Follow-up Subsurface Investigation Report, Bioventing System Subsurface Soil Assessment (Letter Report) (VHB, September 2001)

To further address the presence of subsurface petroleum near monitoring well MW-04, the prior owner installed a pilot bioventing system during December 1996. Additionally, an absorbent bailer has been installed in monitoring well MW-04, which was inspected biweekly and replaced as necessary. The bioventing system consists of a self-contained blower assembly connected to wells RW-03 and BVM-2, which is utilized to aerate subsurface soils immediately above the water table. The system operated continuously from December 1996 to May 2001, with the exception of brief outages for routine maintenance.

To assess the effectiveness of the bioventing system, HLA performed a Geoprobe subsurface investigation on December 8, 1998. The results of this investigation were reported in an April 14, 1999 letter from HLA to the NYSDEC. The investigation involved the advancement of 11 Geoprobe borings radially located around both bioventing injection points. A minimum of two

soil samples from each boring at the 10- to 12-foot and 12- to 14-foot depth intervals (the saturated/unsaturated interface) were collected and analyzed for TPH. TPH was detected in the 10- to 12-foot interval at concentrations as high as 1,100 ppm and in the 12- to 14-foot interval at concentrations as high as 24,000 ppm. Based on the results, it was concluded that the bioventing system was successfully treating the subsurface oil-stained soils, although with diminishing effectiveness farther away from the injection points.

HLA recommended that the bioventing system continue to operate, and that a follow-up Geoprobe assessment be performed during 2000 to monitor the effectiveness of the system. It was also recommended Oxygen Release Compound (ORC®) "socks" be deployed in several wells in the vicinity of monitoring well MW-04 to assess the effectiveness of this proprietary product in enhancing the natural bioremediation of petroleum contaminated groundwater associated with this portion of the property.

Late in 2001, VHB, in a letter to Alan Geisendorfer of Region IV NYSDEC, recommended that the Bioventing and ORC efforts cease as the remaining materials were residual petroleum hydrocarbons recalcitrant to further treatment in the foregoing fashion. NYSDEC subsequently approved the cessation of treatment.

Spill 1604483 Investigation, August 2016 – Barton & Loguidice, Inc.

B&L, Inc. conducted a subsurface investigation in August 2016 per a NYSDEC approved work plan in the area of Spill #1604483. Seven borings were advanced on the lower bank (elevation 217 ft. above sea level (ASL)) and four borings were advanced on the upper bank (elevation 230.5 ASL), as shown on Figure 2. Borings were advanced until soil/sediment samples encountered were visibly clean and PID readings were below 15.0 PPM. Soil/sediment samples were collected at selected intervals and submitted for laboratory analysis by USEPA Method 8260B. PID readings and sample collection intervals are shown on Figure 3. The inferred extent of impacted soil/sediment is shown on Figure 4.

Residual VOCs were detected in eleven of the twelve soil samples collected from the ten soil borings advanced on August 11, 2016, but at concentrations below their respective Restricted Residential Soil Cleanup Objective (SCO). DROs were also detected nine of the twelve soil samples, but there is no corresponding SCO. BPB-11 was advanced on August 12, 2016 to ensure the upper limits of impacted soils had been defined; based on field observations and limited PID readings, no sample was collected. The laboratory results for the soil samples are provided in Appendix C.

ALCO- Spill 1604483 Source Area Investigation	
Diesel Range Organics C10-C28	
BPB-01 (4.25-5')	280 mg/Kg
BPB-01 (12-13')	-
BPB-02 (4-5')	420 mg/Kg
BPB-03 (4.75-5')	710 D mg/Kg
BPB-03 (16-17')	9500 D mg/Kg
BPB-04 (5-6')	420 mg/Kg
BPB-05 (5-6')	1500 D mg/Kg
BPB-06 (6')	16000 D mg/Kg
BPB-07 (4.5-5')	6400 D mg/Kg
BPB-08 (21-22')	-
BPB-09 (21-22')	-
BPB-10 (18-19')	780 D mg/Kg
C10-C28 quantified with Diesel Fuel #2. D = Results for Dilution -Analyte Not Detected at concentration greater than the PQL, RL, or MDL, as applicable.	

3.0 Scope of Work

This work plan (WP) has been prepared following discussions with NYSDEC regarding the need to remediate soil/sediments in the vicinity of Spill 1604483. A Health & Safety Plan (HASP) for Barton & Loguidice, Inc., personnel is provided in Appendix A of this WP. The HASP was developed in accordance with 29 CFR 1910.120. Other companies (contractors) who will be working on this WP can adopt the B&L HASP or provide their own HASP; in either case, safety for personnel of companies other than B&L is the responsibility of that company, pursuant to OSHA regulations.

3.1 Parcel A – Spill 1604483

While the placement of oil-containment booms has been effective, the persistence of the residual sheen indicates that a potential source material may remain in the vicinity of former MW-04 and adjacent onshore area to Spill 1604483. Discussions with NYSDEC have led to the opinion that further investigation of the onshore area adjacent to the seep is warranted.

3.1.1 Monitoring Well Installation

To further delineate the potential source area for Spill 1604483 and determine an effective means for mitigation, a maximum of three new monitoring wells will be installed based on field observations and screening. The wells will be installed and developed using the same techniques as employed in the SRI. The wells screens will be positioned vertically to bridge the apparent water table and to allow for the detection of free-phase light non-aqueous phase liquids (LNAPL).

Samples will be collected from the newly-installed monitoring wells by hand-bailing. Samples will be submitted to a laboratory for analysis of VOCs by USEPA Method 8260B.

3.1.2 Oxidant Injection

Based on current site operations (building construction, utility installations, site work, etc.) and the location of the observed impacted soils/sediments, in-situ remediation (chemical oxidation) will be employed to degrade the contaminant source area. This process entails the injection of a chemical oxidant solution into the subsurface contaminated zone, where the chemical oxidant breaks the contaminant down into its constituent components. The chemical is injected at different depths and locations to ensure that the contaminated zone is fully saturated with the oxidant. The residual compounds left over after the reactions are conventional groundwater constituents: sulfate, carbonate, carbon dioxide, sodium etc.

The proposed remedial approach employs the same technology for both the saturated and unsaturated zone contamination. The proposed remedial approach entails injecting a liquid chemical oxidant to destroy contaminants in the subsurface in the area of high concentration. PersulfOx™ has been selected for this site, as it has desirable characteristics in terms of viscosity and reaction speed that make it well suited for application in both the saturated and unsaturated zones. Manufacturer's literature on PersulfOx™ is provided in Appendix B.

Based on the contaminant distribution described by existing site data, the zone of observed petroleum impact identified in borings presented on Figure 5 will be targeted for injection of PersulfOx™. A Geoprobe will be used to advance 2-inch diameter rods, through which the PersulfOx™ will be injected into the subsurface. The rods will be advanced to the bottom of the targeted vertical zone and PersulfOx™ injected on one-foot increments as the rods are withdrawn (bottom-up method). An expendable tip will be placed on the lead rod; the tip is disconnected as the rods are withdrawn and PersulfOx™ is injected out the bottom of the lead rod. A grout pump will be used to inject PersulfOx™ through the rods into the targeted zone.

The highest contaminant concentrations have been noted within the treatment area shown on Figure 5. PersulfOx™ will be injected on roughly five foot spacing (approximately 20 injection points on the lower bank and 10 injection points on the upper bank). B&L anticipates injecting PersulfOx™ at a rate of roughly 40 pounds per vertical foot.

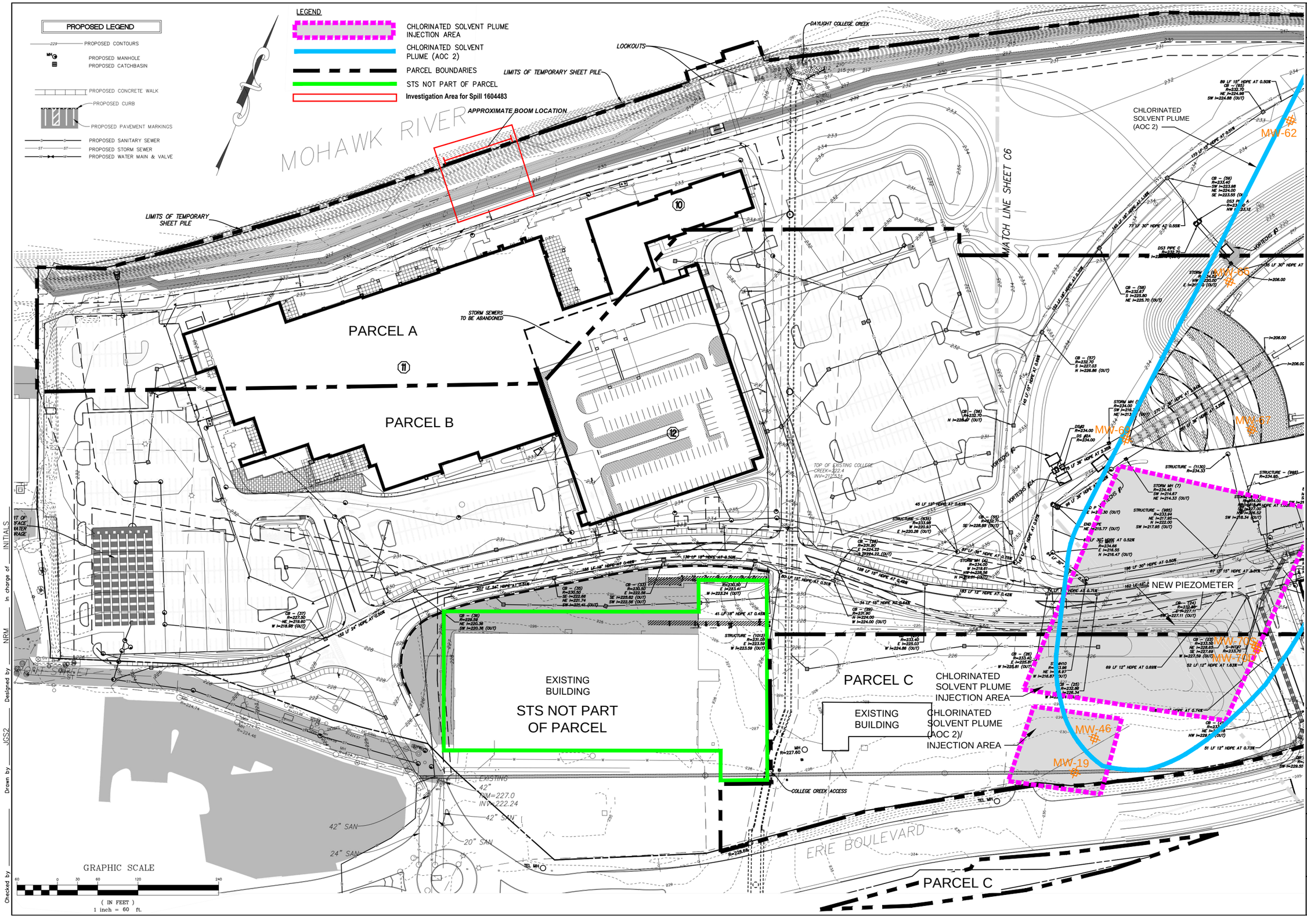
The existing sorbent and containment booms will be kept in place during and after the oxidant injection, to contain petroleum that might be released from the impacted soil/sediments during or after the injection event. As an additional safeguard, a geosynthetic clay liner (GCL) mat will be laid along the bank. The GCL is a composite of two layers of permeable synthetic material which sandwich a layer of supported bentonite clay. The GCL is roughly 15 feet in width and will be installed the length of the identified spill area; the GCL will be anchored and ballasted as appropriate to temporarily secure it to the bank, as shown conceptually on Figure 5. Please note that installation of GCL along the river bank is not anticipated to produce a perfect seal given the irregular surface of the rip-rap embankment material used to support the river bank; additional containment is provided by the sorbent and containment booms. The GCL will be left in place for a minimum of two weeks following the injection event.

3.2 Reporting

A monthly Letter Report will be prepared to provide the findings of the work described in this work plan. The Report will contain related supporting figures and tables, such as laboratory data reports and boring logs provided in appendices.

Figure 1

Parcel A SPILL 1604483 Area



NO ALTERATION PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW.

COMPLETED CONSTRUCTION

Significant Construction Changes Are Shown

By _____ Date _____

Ck'd _____ Date _____

REVISIONS

GALESI GROUP

MAXON ALCO HOLDINGS, LLC

Parcel A Spill 1604483 Area

SCHENECTADY COUNTY, NEW YORK

CITY OF SCHENECTADY

Barton & Loguidice, D.P.C.

Date
AUGUST 2016

Scale
1"=60'

Sheet Number
1

File Number
1338.008.001

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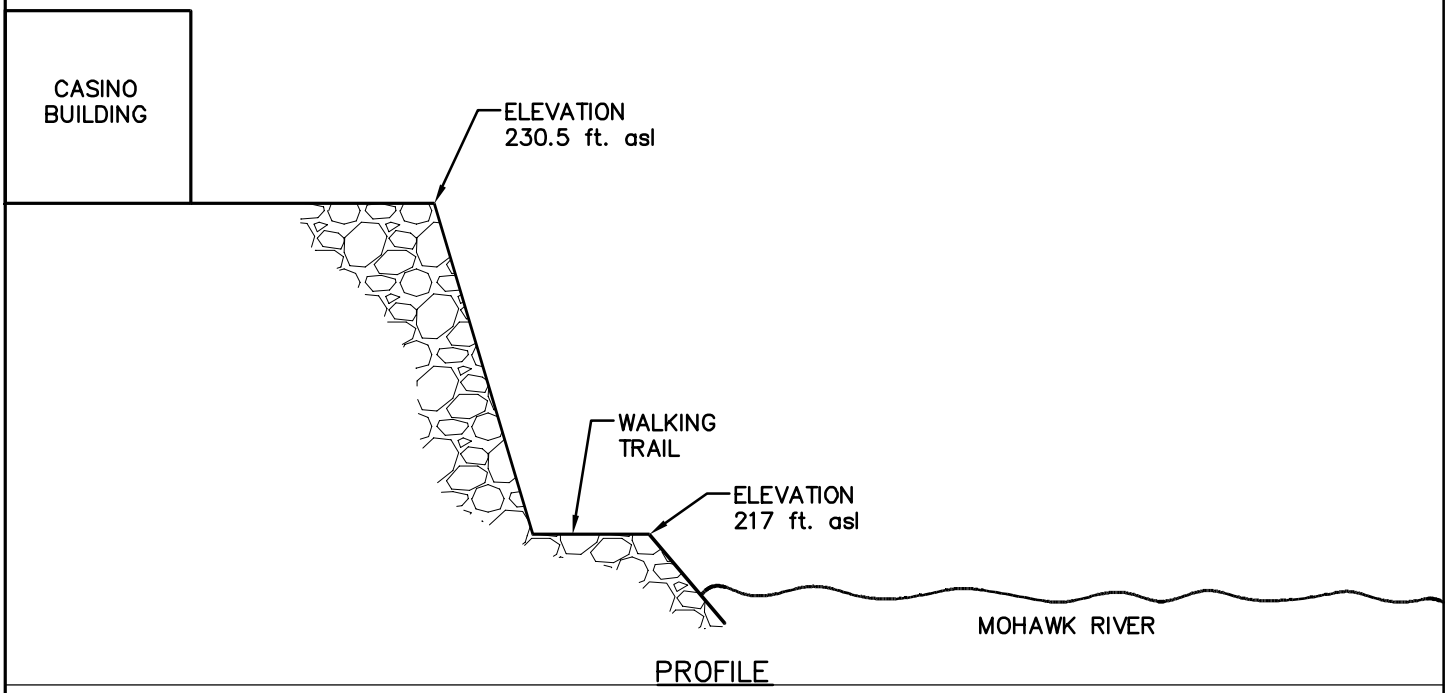
Checked by _____ Drawn by JGS2 Designed by NRM In charge of _____ INITIALS

Figure 2

SPILL 1604483 Investigation



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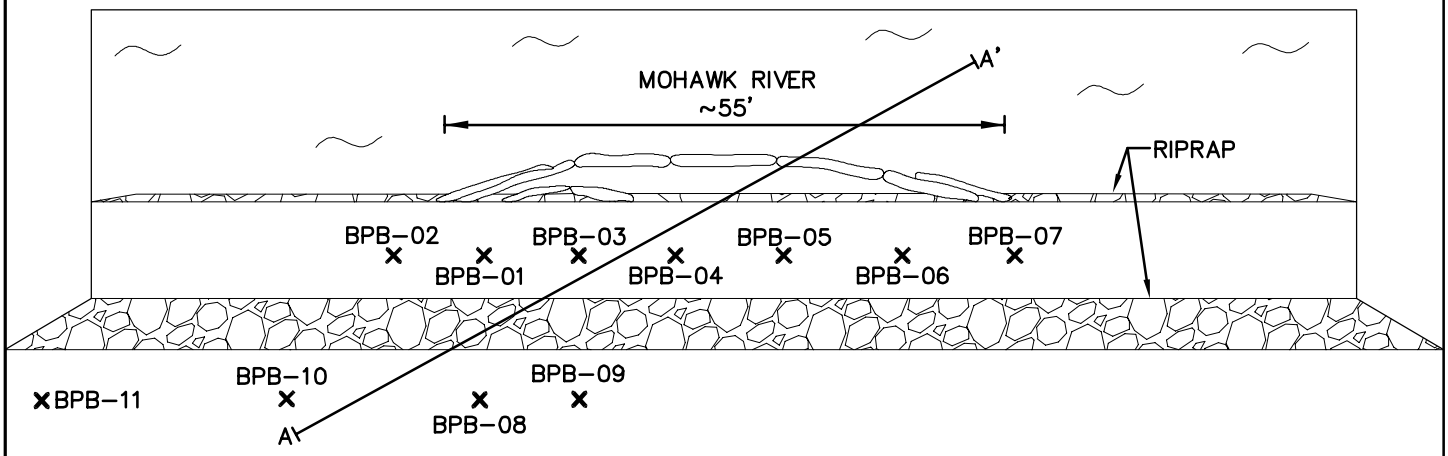

BIRDS EYE VIEW

Barton & Loguidice, D.P.C.

MAXON ALCO HOLDINGS, LLC.
ALCO BROWNFIELD SITE

SPILL 1604483 INVESTIGATION

SCHENECTADY, NY. SCHENECTADY COUNTY, NEW YORK

Date	Scale
AUGUST, 2016	NOT TO SCALE

Figure Number 2

Project Number 1368.001.001

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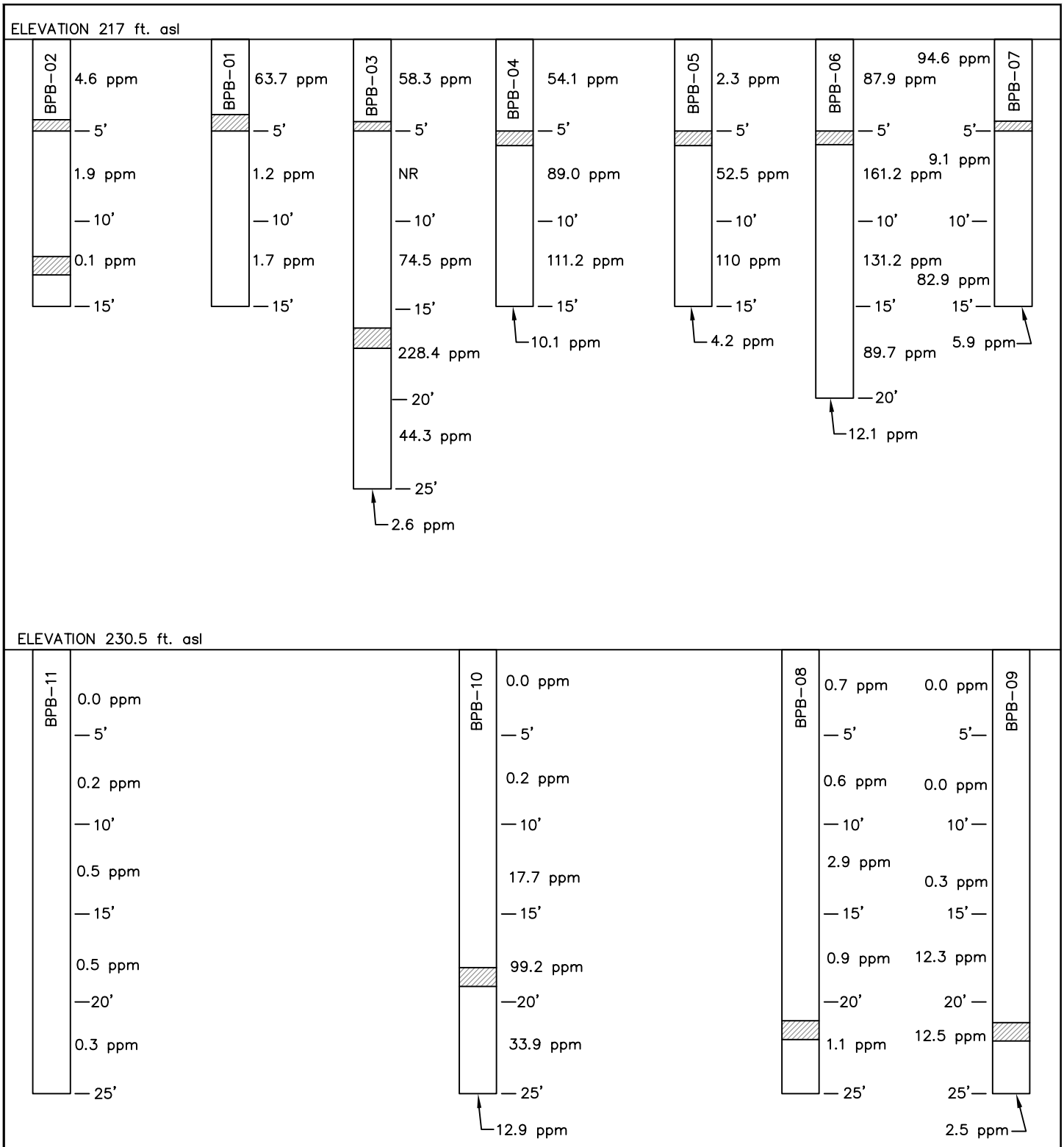
Figure 3

Samples



NOTE:
PID READINGS SHOWN ARE THE PEAK READINGS FOR THE 5 ft. SAMPLING INTERVALS

LEGEND:
SAMPLING

Barton & Loguidice, D.P.C.

MAXON ALCO HOLDINGS, LLC.
ALCO BROWNFIELD SITE

SAMPLES

SCHENECTADY, NY. SCHENECTADY COUNTY, NEW YORK

Date	Scale
AUGUST, 2016	NOT TO SCALE

Figure Number
3

Project Number
1368.001.001

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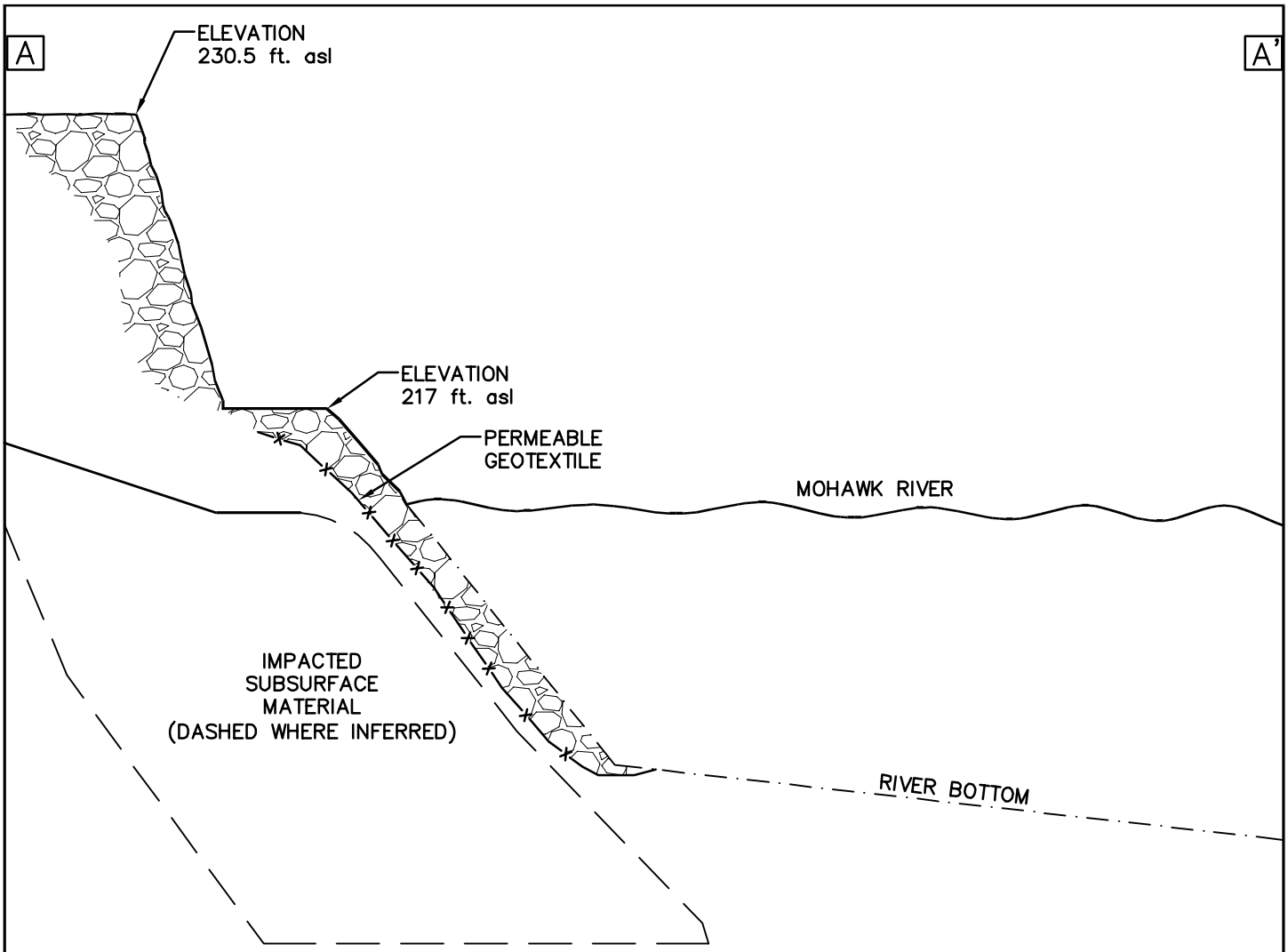
Figure 4

Section A-A’



SECTION A–A'

Barton & Loguidice, D.P.C.

MAXON ALCO HOLDINGS, LLC.
ALCO BROWNFIELD SITE

SECTION A–A'

SCHENECTADY, NY. SCHENECTADY COUNTY, NEW YORK

Figure Number
4

Project Number
1368.001.001

Date
AUGUST, 2016

Scale
NOT TO SCALE

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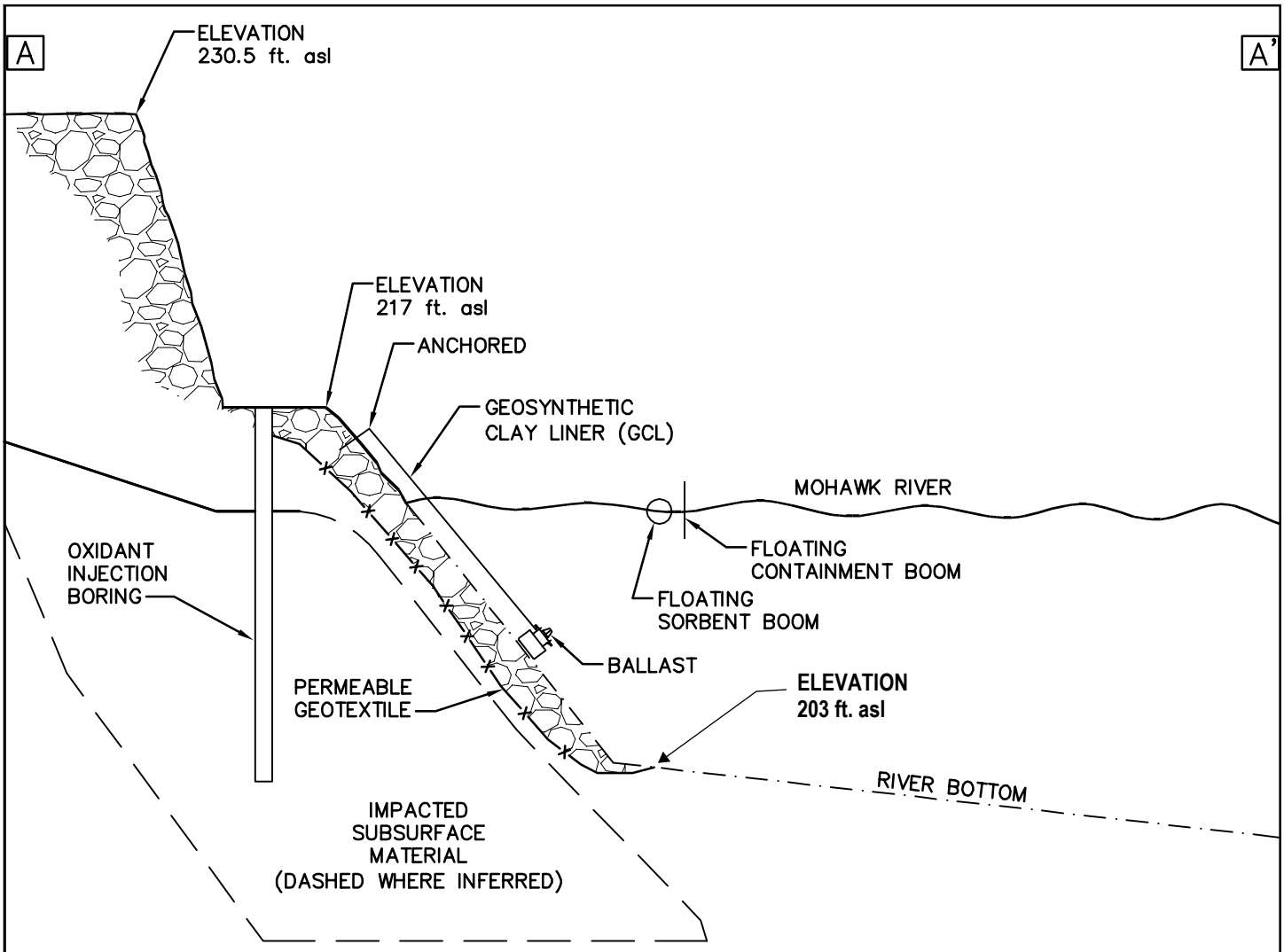
Figure 5

Conceptual Remedial Action and Containment



SECTION A–A'

Barton & Loguidice, D.P.C.

Date	Scale
AUGUST, 2016	NOT TO SCALE

MAXON ALCO HOLDINGS, LLC.
ALCO BROWNFIELD SITE

CONCEPTUAL REMEDIAL ACTION AND CONTAINMENT

SCHENECTADY, NY. SCHENECTADY COUNTY, NEW YORK

Figure Number
5

Project Number
1368.001.001

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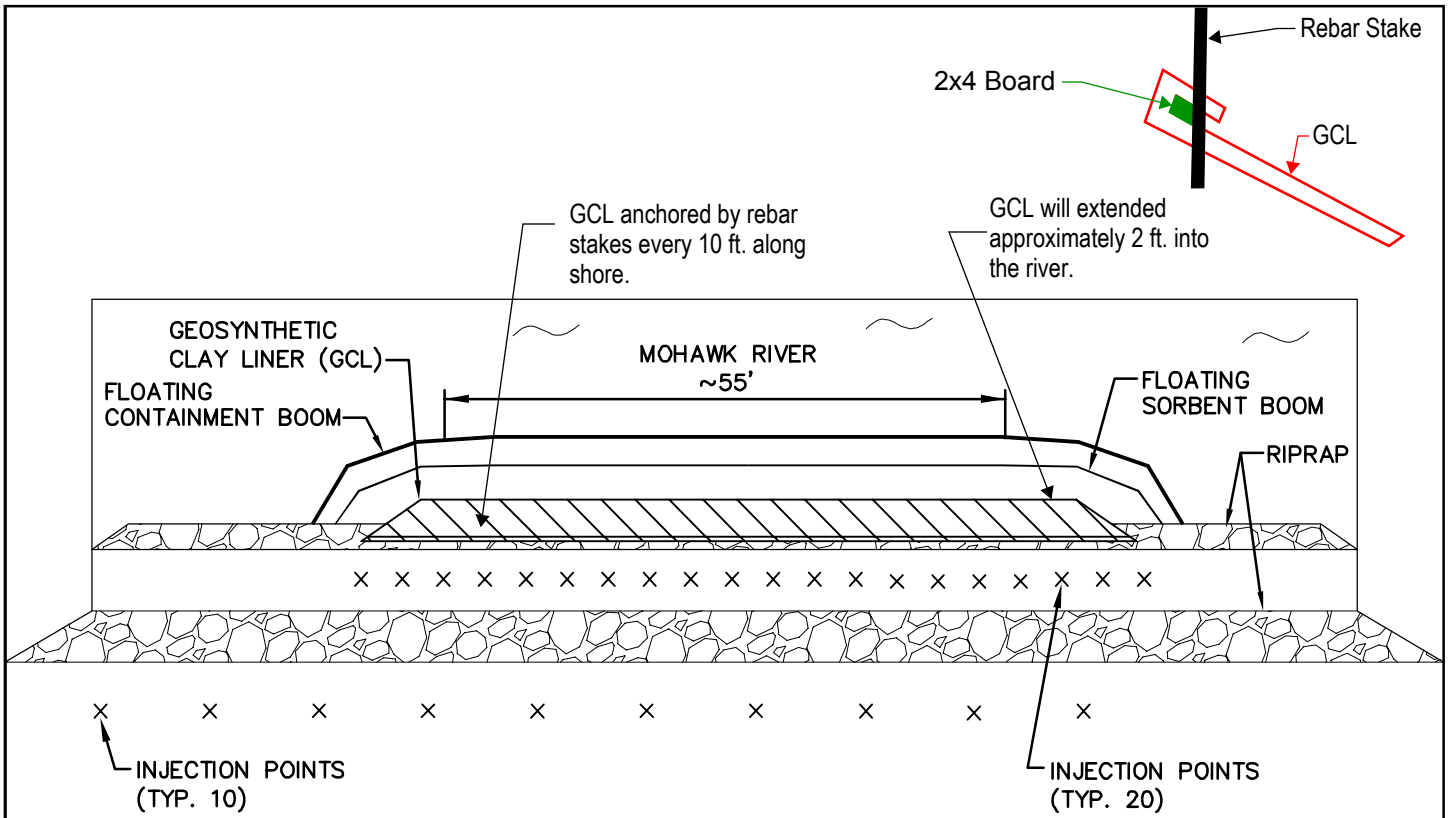
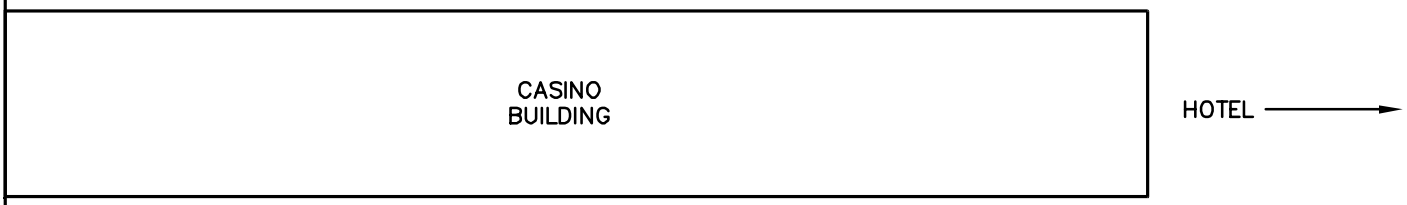
Figure 6

Aerial View of Conceptual Remedial Action and Containment





BIRDS EYE VIEW

Barton & Loguidice, D.P.C.

Date	Scale
SEPTEMBER, 2016	NOT TO SCALE

MAXON ALCO HOLDINGS, LLC.
ALCO BROWNFIELD SITE

AERIAL VIEW OF CONCEPTUAL REMEDIAL ACTION AND CONTAINMENT

SCHENECTADY, NY. SCHENECTADY COUNTY, NEW YORK

Figure Number
6

Project Number
1368.001.001

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Appendix A

Health and Safety Plan

Former ALCO Site
Brownfield Cleanup Project

City of Schenectady
Schenectady County, New York

Health and Safety Plan (HASP)

New York State
Brownfield Cleanup Program
Site Nos. C447042, C447043, and C447044

December 2013

Barton & Loguidice

Former ALCO Site
Brownfield Cleanup Project

City of Schenectady

Health and Safety Plan
Site Nos. C447042, C447043, and C447044

December 2013

Prepared For:

Maxon ALCO Holdings, LLC
540 Broadway
Albany, New York 12207

Prepared By:

Barton & Loguidice, P.C.
Engineers • Environmental Scientists • Planners • Landscape Architects
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1.0 General Information

1.1 Introduction

This Health and Safety Plan (HASP) was prepared by Barton & Loguidice, Inc. (B&L) for future excavation work at the former ALCO site where the existing soils will be penetrated. The existing soils contain residual impacts from historic activities at the site. The impacts were characterized by the Remedial Investigation and Supplemental Remedial Investigation that were conducted at the site. A summary of the impacts is provided in this HASP

Please note that this site falls within the definition of a hazardous waste sites for the purposes of 29 CFR 1910.120, *Hazardous Waste Operations and Emergency Response*. Plan. This was prepared in accordance with 29 CFR 1910.120. This plan was prepared, and will be implemented, by a qualified person as defined under 29 CFR 1910.120; this is also in accordance with NYSDEC DER-10, *Technical Guidance for Site Investigation and Remediation.*

The purpose of this Health and Safety Plan for the Steel Treaters contaminant source removal IRM is to provide specific guidelines and establish procedures for the protection of personnel during the field investigation and site remediation activities. The Plan is based on the site information available at this time and anticipated conditions to be encountered during the different phases of work. This Plan is subject to modification as data are collected and evaluated.

All personnel conducting activities on-site must comply with all applicable Federal and State rules and regulations regarding safe work practices. Personnel conducting field activities must also be familiar with the procedures, requirements and provisions of this Plan. In the event of conflicting Plans and requirements, personnel must implement those safety practices that afford the highest level of protection.

This HASP is not intended to be used by any subcontractors, but it may be used as the basis for contractors to prepare their own plans. This HASP may not address the specific health and safety needs or requirements of subcontractors and should be viewed as the minimum requirement.

2.0 Project Information

2.1 Comprehensive Work Plan

This HASP is appended to the Site Remedial Work Plan (RWP) prepared by Barton & Loguidice, Inc., which describes the proposed remedial activities for the site.

2.2 Scope of Work

Remedial and/or development activities at the site may entail excavation into the existing in-place soils at the site.

2.3 Organization Structure

Barton & Loguidice, P.C.:
Program Manager – Scott Nostrand, P.E.

Site Manager – Andy Barber
Maxon ALCO Holdings, LLC (MAH):

Project Contact – Steve Luciano

The Site Manager is responsible for the day-to-day activities of the project and for coordinating between office and field personnel. The Site Manager will oversee the remedial activities. The Barton & Loguidice on-site field personnel will serve as the Site Safety and Health Coordinator (SSHC). The SSHC will establish operating standards and coordinate overall project safety and health activities for the site. The SSHC will review project plans and revisions to determine that safety and health procedures are maintained throughout the project. Specifically the responsibilities of the SSHC include:

a. Aiding the selection of protective clothing and equipment.

b. Periodically inspecting protective clothing and equipment.

c. Maintaining proper storage of protective clothing and equipment.

d. Monitoring the workers for signs of heat stress, cold stress, and fatigue.

e. Monitoring on-site hazards and conditions.

f. Conducting periodic surveillance to evaluate effectiveness of the Site-specific Health and Safety Plan.

g. Having knowledge of emergency procedures, evacuation routes, and the telephone numbers of the ambulance, local hospital, poison control center, fire department, and police department.

h. Providing handouts to all on-site personnel that contain directions to the hospital and the telephone numbers of the ambulance, local hospital, poison control center, fire department, and police department.

i. Notifying, when necessary, local public emergency officials.

j. Coordinating emergency medical care.

The Site Manager will be responsible for ensuring that the field personnel are familiar with the contents of this plan and the roles of the SSHC.

3.0 Health and Safety Risk Analysis

Table B-1 breaks down the hazard types that may be encountered for the site activities.

Table B-1
Site Investigation Activity Hazard Evaluation

Activity	Hazard Type					
	Mechanical	**Electrical**	**Chemical**	**Physical**	**Biological**	**Temperature**
Excavation of Impacted Soils	Accidental injury from excavation equipment. Accidental injury from contact with excavated materials.	Overhead power lines.	Accidental inhalation, ingestions, skin absorption or eye contact with contaminants. Inhalation of equipment exhaust gases.	Collapse of excavation structure. Puncture from buried objects/nails. Excessive noise. Fall hazards. Falling objects.	Rodents, Bees and wasps.	Heat stress and frost bite.

3.1 Chemical Hazards

Site soils have been impacted by historic industrial operations at the site. These impacts are largely related to the use of petroleum products and coal at the site. The contaminants that have been detected at the site are listed in Table B-2 and their properties are listed in Table B-3 (below).

Table B-2 – Contaminants Detected in Soil

Contaminants Detected in Surface Soils

	Part 375 Residential	Part 375 Restricted Residential	Part 375 Commercial	SS-A1	SS-A2	SS-A3	SS-A5	SS-A6	SS-A8	SS-A9
Parcel A										
2-Methylnaphthalene	*410*	*NS*	*NS*	57 J	**410 J**	130 J	**700 J**	3,500 U	**890 J**	**11,000 J**
Benzo(a)Anthracene	*1,000*	*1,000*	*5,600*	**1,300**	**6,000**	**5,500**	**4,500**	**1,800 J**	**24,000**	**160,000**
Benzo(a)Pyrene	*1,000*	*1,000*	*1,000*	**1,700**	**6,700**	**6,800**	**4,200**	**2,100 J**	**21,000**	**140,000**
Benzo(b)Fluoranthene	*1,000*	*1,000*	*5,600*	**3,100**	**12,000**	**14,000**	**6,700**	**4,400**	**25,000**	**170,000**
Benzo(G,H,I)Perylene	*100,000*	*100,000*	*500,000*	600 J	2,300	3,100	1,300	1,500 J	14,000	**98,000**
Benzo(k)Fluoranthene	*1,000*	*3,900*	*56,000*	**1,400**	**4,000**	**5,100**	**3,000**	**2,100 J**	**11,000**	**71,000**
Chrysene	*1,000*	*3,900*	*56,000*	**1,700**	**6,600**	**6,700**	**4,400**	**2,600 J**	**23,000**	**150,000**
Dibenzo(A,H)Anthracene	*330*	*330*	*560*	210 J	**820 J**	**880 J**	**370 J**	3,500 U	4,900 U	9,800 U
Dibenzofuran	*14,000*	*59,000*	*350,000*	31 J	710 J	260 J	1,100	3,500 U	2,300 J	**22,000**
Fluoranthene	*100,000*	*100,000*	*500,000*	1,800	11,000	8,700	9,900	2,700 J	44,000	**330,000**
Indeno(1,2,3-Cd)Pyrene	*500*	*500*	*5,600*	**570 J**	**2,200**	**2,800**	**1,200**	**1,400 J**	**11,000**	**84,000**
Phenanthrene	*100,000*	*100,000*	*500,000*	600 J	9,100	4,600	9,300	1,300 J	35,000	**290,000**
Pyrene	*100,000*	*100,000*	*500,000*	1,700	8,800	7,100	7,400	2,200 J	40,000	**310,000**

All units are in µg/Kg
Values shown in BOLD exceed the 6 NYCRR Part 375 Residential Soil Cleanup Objective
Values that are highlighted exceeds the 6 NYCRR Part 375 Commercial Soil Cleanup Objective
U = The compound was not detected at the indicated concentration.
J = Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL.

Table B-2 – Contaminants Detected in Soil – Continued

Contaminants Detected in Surface Soils

	Part 375 Residential	Part 375 Restricted Residential	Part 375 Commercial	SS-B3	SS-B4	SS-B5	SS-B6	SS-B8
Parcel B								
2-Methylnaphthalene	*410*	*NS*	*NS*	18,000 U	**620 J**	27 J	12 J	3,900 U
Benzo(a)Anthracene	*1,000*	*1,000*	*5,600*	**960 J**	**13,000**	850	**1,400**	**2,900 J**
Benzo(a)Pyrene	*1,000*	*1,000*	*1,000*	**1,000 J**	**15,000**	**1,100**	**1,500**	**4,100**
Benzo(b)Fluoranthene	*1,000*	*1,000*	*5,600*	18,000 U	**20,000**	**1,300**	**3,900**	**5,000**
Benzo(k)Fluoranthene	*1,000*	*1,000*	*56,000*	18,000 U	**6,800**	480	**1,500**	**2,800 J**
Chrysene	*1,000*	*1,000*	*56,000*	**1,000 J**	**13,000**	890	**2,100**	**3,300 J**
Indeno(1,2,3-Cd)Pyrene	*500*	*500*	*5,600*	18,000 U	**7,700**	**550**	**1,600**	**2,100 J**

All units are in µg/Kg
Values shown in BOLD exceed the 6 NYCRR Part 375 Residential Soil Cleanup Objective
Values that are highlighted exceeds the 6 NYCRR Part 375 Commercial Soil Cleanup Objective
U = The compound was not detected at the indicated concentration.
J = Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL.

Table B-2 – Contaminants Detected in Soil – Continued

Contaminants Detected in Surface Soils

	Part 375 Residential	Part 375 Restricted Residential	Part 375 Commercial	SS-C1	SS-C2	SS-C4	SS-C6	SS-C9
Parcel C								
2-Methylnaphthalene	*410*	*NS*	*NS*	6,900 U	7,000 U	**440 J**	65 J	2,000 U
Benzo(a)Anthracene	*1,000*	*1,000*	*5,600*	**1,500 J**	**4,600 J**	**49,000**	**3,900**	**1,500 J**
Benzo(a)Pyrene	*1,000*	*1,000*	*1,000*	**1,700 J**	**6,400 J**	**43,000**	**3,700**	**1,600 J**
Benzo(b)Fluoranthene	*1,000*	*1,000*	*5,600*	**2,000 J**	**9,600 J**	**50,000**	**4,500**	**2,000**
Benzo(k)Fluoranthene	*1,000*	*1,000*	*56,000*	**2,100 J**	**3,500 J**	**29,000**	**1,700 J**	**1,100 J**
Chrysene	*1,000*	*1,000*	*56,000*	**1,500 J**	**4,900 J**	**46,000**	**3,900**	**1,600 J**
Dibenzo(A,H)Anthracene	*330*	*330*	*560*	6,900 U	7,000 U	9,500 U	**680 J**	2,000 U
Indeno(1,2,3-Cd)Pyrene	*500*	*500*	*5,600*	**880 J**	**3,600 J**	**22,000**	**2,100**	**800 J**

All units are in μg/Kg
Values shown in BOLD exceed the 6 NYCRR Part 375 Residential Soil Cleanup Objective
Values that are highlighted exceeds the 6 NYCRR Part 375 Commercial Soil Cleanup Objective
U = The compound was not detected at the indicated concentration.
J = Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL.

Table B-2 – Contaminants Detected in Soil – Continued

Contaminants Detected in Surface Soils

	Arsenic	Copper	Lead
Part 375 Residential	*16*	*270*	*400*
Part 375 Restricted Residential	*16*	*270*	*400*
Part 375 Commercial	*16*	*270*	*1,000*
Sample Location			
SS-A2	**18.8**	**723 J**	**1530**
SS-A3 / DUP-03	**32.1 / 19.6 J**	92.3 J/ 317 J	**897** / 298
SS-A9	**15.6 J**	67.3	95
SS-B3	**79.7 J**	15.7	16.4
SS-C7	**24.5**	37.9	8.8

J = Indicates an estimated value detected below the reporting limit.
Values shown in BOLD exceed the 6 NYCRR Part 375 Residential Soil Cleanup Objective
Values that are highlighted exceeds the 6 NYCRR Part 375 Commercial Soil Cleanup Objective
All units are in mg/Kg

Table B-2 – Contaminants Detected in Soil – Continued

Contaminants Detected in Subsurface Soils

	Part 375 Residential	**Part 375 Restricted Residential**	**Part 375 Commercial**	SB-A1	SB-A2 / DUP-03	SB-A3
Parcel A						
2-Methylnaphthalene	*410*	*NS*	*NS*	**3,200 J**	48 J / 36 J	150 J
Benzo(a)Anthracene	*1,000*	*1,000*	*5,600*	**14,000**	**2,000 J / 1,300 J**	**1,800**
Benzo(a)Pyrene	*1,000*	*1,000*	*1,000*	**14,000**	**1,900 J / 1,300 J**	**1,600**
Benzo(b)Fluoranthene	*1,000*	*1,000*	*5,600*	**17,000**	**2,500 J / 1,400 J**	**1,800**
Chrysene	*1,000*	*1,000*	*56,000*	**15,000**	**2,000 J / 1,300 J**	**1,700**
Dibenzo(A,H)Anthracene	*330*	*330*	*560*	**2,800 J**	**370 J /** 220	280
Indeno(1,2,3-Cd)Pyrene	*500*	*500*	*5,600*	**8,400**	**1,100 J / 650 J**	**850**

All units are in µg/Kg .
Values shown in BOLD exceed the 6 NYCRR Part 375 Residential Soil Cleanup Objective
Values that are highlighted exceeds the 6 NYCRR Part 375 Commercial Soil Cleanup Objective
J = Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL.

Table B-2 – Contaminants Detected in Soil – Continued

Contaminants Detected in Subsurface Soils

	Part 375 Residential	Part 375 Restricted Residential	Part 375 Commercial	SB-B2 /	DUP-02-SB	SB-B3
Parcel B						
2-Methylnaphthalene	*410*	*NS*	*NS*	**860 J /**	**890 J**	55 J
Benzo(a)Anthracene	*1,000*	*1,000*	*5,600*	**13,000 /**	**13,000**	**3,800**
Benzo(a)Pyrene	*1,000*	*1,000*	*1,000*	**13,000 /**	**13,000**	**3,900**
Benzo(b)Fluoranthene	*1,000*	*1,000*	*5,600*	**14,000 /**	**15,000**	**5,600**
Chrysene	*1,000*	*1,000*	*56,000*	**12,000 /**	**13,000**	**5,000**
Dibenzo(A,H)Anthracene	*330*	*330*	*560*	**2,400 /**	**2,200**	400 U
Indeno(1,2,3-Cd)Pyrene	*500*	*500*	*5,600*	**7,000 /**	**6,400**	**2,700**

All units are in μg/Kg .
Values shown in BOLD exceed the 6 NYCRR Part 375 Residential Soil Cleanup Objective
Values that are highlighted exceeds the 6 NYCRR Part 375 Commercial Soil Cleanup Objective
U = The compound was not detected at the indicated concentration.
J = Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL.

Table B-2 – Contaminants Detected in Soil – Continued

Contaminants Detected in Subsurface Soils

	Part 375 Residential	Part 375 Restricted Residential	Part 375 Commercial	SB-C3
Parcel C				
Benzo(a)Anthracene	*1,000*	*1,000*	*5,600*	**1,200 J**
Benzo(a)Pyrene	*1,000*	*1,000*	*1,000*	**1,200 J**
Benzo(b)Fluoranthene	*1,000*	*1,000*	*5,600*	**1,300 J**
Chrysene	*1,000*	*1,000*	*56,000*	**1,200 J**
Indeno(1,2,3-Cd)Pyrene	*500*	*500*	*5,600*	**700 J**

All units are in μg/Kg .
Values shown in BOLD exceed the 6 NYCRR Part 375 Residential Soil Cleanup Objective
Values that are highlighted exceeds the 6 NYCRR Part 375 Commercial Soil Cleanup Objective
J = Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL.

Table B-3 - Assessment of Detected Chemicals

Chemical Name (or class)	REL/PEL/TLV	Other Pertinent Limits (Specify)	Warning Properties – Odor Threshold	Potential Exposure Pathways	Acute Health Effects	Chronic Health Effects
#1 Fuel Oil (Kerosene)	100 mg/m3 (NIOSH)		Colorless to yellowish oily liquid with a strong characteristic odor	Inhalation, Ingestion, Contact	Eye, skin & respiratory irritation; dizziness, drowsiness, nausea, vomit, headache, abdominal pain	Eyes; skin; respiratory system; CNS
#2 Fuel Oil	5 mg/m3 (OSHA)		Colorless to yellowish oily liquid with a strong characteristic odor	Inhalation, Ingestion, Contact	Eye, skin & respiratory irritation; dizziness, drowsiness, nausea, vomit, headache, abdominal pain	Eyes; skin; respiratory system; CNS
#4 Fuel Oil	5 mg/m3 (OSHA)		Colorless to yellowish oily liquid with a strong characteristic odor	Inhalation, Ingestion, Contact	Eye, skin & respiratory irritation; dizziness, drowsiness, nausea, vomit, headache, abdominal pain	Eyes; skin; respiratory system; CNS
Polynuclear Aromatic Hydrocarbons (Coal components)	0.1 mg/m3 (NIOSH) 0.2 mg/m3 (OSHA)		Black, dark brown residue	Inhalation, Ingestion, Contact	Skin irritation	Respiratory system; skin, bladder; kidneys
Arsenic				Inhalation, Ingestion, Contact	Skin irritation	Eyes; skin; respiratory system; CNS; kidneys; GI tract; repro system
Copper	1 mg/m3 (OSHA, NIOSH)		Reddish metal	Inhalation, Ingestion, Contact	Eye irritation	Eyes; skin; respiratory system; liver; kidneys;
Lead	0.050 mg/m3 (OSHA, NIOSH)		Gray metal	Inhalation, Ingestion, Contact		Eyes; CNS; kidneys; GI tract; blood

PEL = OSHA Permissible Exposure Limit; represents the maximum allowable 8-hr. time weighted average (TWA) airborne exposure concentration.
TLV = ACGIH Threshold Limit Value; represents the maximum recommended 8-hr. TWA exposure concentration.
STEL = OSHA Short-term Exposure Limit; represents the maximum allowable 15 minute TWA exposure concentration.
TLV-STEL = ACGIH Short-term Exposure Limit; represents the maximum recommended 15 minute TWA exposure concentration.

3.2 Physical Hazards

Physical hazards associated with the site are:

1. *Slip, Trip, and Fall During All Activities (Uneven Terrain):* The site contains numerous potential safety hazards such as pits, broken glass, slippery surfaces and fire debris. The work itself may be a potential safety hazard. Site personnel should constantly look out for potential safety hazards and should immediately inform the SSHC of any new hazards.
2. *Excavation Debris:* Excavation projects pose potential safety hazards from materials falling from the excavator as they are removed from the working excavation. The excavation work is a potential safety hazard and the SSHC will provide oversight during demolition activities.
3. *Moving Parts of Heavy Equipment:* Heavy equipment poses dangers though moving parts. Where feasible, access to moving parts will be guarded and equipment will be equipped with backup alarms.
4. *Noise from Heavy Equipment:* Work around large equipment often creates excess noise. Engineering controls and personal protective equipment will be used to protect employees' hearing.
5. *Electrical Hazards:* As in all site work, overhead power lines, buried power lines, electrical wires and cables, site electrical equipment, and lightning also pose a potential hazard to site workers. Site personnel should constantly look out for potential safety hazards and should immediately inform the SSHC of any new hazards.
6. *Biological Hazards (Insects, Poison Ivy, etc.):* Other biological hazards that may be present at the site include rodents and insects. PPE can reduce the potential for exposure. The SSHC can assist in determining the correct PPE for the hazard present.

3.3 Heat and Cold Stress

Workers will be routinely observed by the SSHC for symptoms of heat stress or cold exposure, as dictated by the weather conditions and work being conducted. Heat stress and cold exposure can be avoided by periodic, regular rest breaks.

Heat stress may be a potential hazard for personnel wearing PPE, particularly working in hot and humid conditions. Workers should take regular rest breaks within a shaded area, removing their PPE, and drink electrolyte replacing liquids and/or water. The SSHC is responsible for scheduling the amount of time each individual can work under the existing site conditions, and how often and how long they will break. Workers will be required to take their breaks in the clean zone after going through the decontamination area , or they may undergo partial decontamination and rest in a clean area within the decontamination area. Please refer to Section 7.2 (Site Control) of this HASP for a detailed description of the above referenced clean zone and decontamination area.

3.4 Confined Space Entry

Excavations do pose a potential confined space entry area. When an excavation becomes a confined space entry area (greater than 4 feet deep), then permit-required confined space entry procedures will be followed should the excavation need to be entered. In addition, air monitoring for oxygen deficiency, LEL, and organic vapors will be performed should the excavation be greater than 4 feet deep. Attempts will be made to collect samples from the excavation without entering the excavation (i.e., from excavator bucket, sampling rods, etc.).

4.0 Medical Surveillance Program

4.1 General

OSHA in 29 CFR 1910.120, the Hazardous Waste Operations regulations and in 1910.134, the Respiratory Protection regulations, requires medical examinations. The examination may include the OSHA required Medical Questionnaire, Respirator Suitability Form, a Medical Examination, Audiology Test, Pulmonary Function Test, and testing for complete blood count and chemistry profile.

These medical examinations and procedures are performed by or under the supervision of a licensed physician. The medical monitoring is provided to workers free of cost, without loss of pay and at a reasonable time and place. In addition, the need to implement a more comprehensive medical surveillance program will be re-evaluated after an apparent over-exposure incident.

Employees who wear, or may wear, respiratory protection will be provided respirators as regulated by 29 CFR 1910.134 before performing designated duties. Prior to issuance of a respirator, a medical professional must have medically certified the individual's ability to wear respiratory protection. Where the medical requirements of 29 CFR 1910.120 overlap those of 29 CFR 1910.134, the more stringent of the two will be enforced. It is not anticipated the respirator use will be required at the site.

4.2 Frequency

1. *Baseline Examinations:* Individuals who are assigned temporarily or permanently to fieldwork at hazardous waste sites or the use of a respirator will receive a baseline examination prior to job assignment.

2. *Periodic Examinations:* Individuals who are assigned temporarily or permanently to fieldwork at hazardous waste sites or the use of a respirator will receive periodic examinations as required.

3. *Termination Examinations:* Field employees permanently leaving the company who were in the medical surveillance program will receive an exit examination.

4. *Possible Exposure Examinations:* As soon as possible upon notification by an employee that the employee has developed signs or symptoms indicating possible overexposure to hazardous substances or health hazards, or that an employee has been injured or exposed above the permissible exposure limits in an emergency situation, that employee will be required to receive medical attention.

4.3 Examination Results

A letter must be received from the attending physician stating the parameters of the examination and whether or not the individual is able to work with or without restriction. This letter will be filed in the employee's file and a copy distributed to the employee. The examining physician makes a report to B&L of any medical condition that would place B&L employees at increased risk when wearing a respirator of other personal protective equipment. B&L maintains the medical records of personnel, as regulated by 29 CFR 1910.120 and 29 CFR 1910.1020, where applicable.

5.0 Training Program

5.1 Hazardous Waste Operations Health and Safety Training

Employees who are assigned to perform duties on hazardous waste sites will receive the OSHA initial 40-hour health and safety training prior to on-site activities, in accordance with 29 CFR 1910.120 (e). In addition, such personnel provide documentation of having received three (3) days of supervised field experience applicable to this site, or receive three (3) days of supervised field experience at this site. Applicable employees will receive yearly 8-hour refresher courses. On-site managers and supervisors who are directly responsible for or who supervise workers engaged in hazardous waste operations receive, in addition to the appropriate level of worker HAZWOPER training described above, 8 (eight) additional hours of specialized supervisory training, in compliance with 29 CFR 1910.120(e)(4).

Because this site is meets the definition of a hazardous waste site, employees who work during field activities are required to have completed HAZWOPER initial and refresher training.

5.2 Additional Training

As site activities change, supplemental training will be provided to employees to address changes in identified hazards, risks, operations procedures, emergency response, site control, and personal protective equipment. Specialty training will be provided as determined by task and responsibility.

Site-specific training will be provided to each employee and will be reviewed at safety briefings. Specialized training will be provided as dictated by the nature of site activities. Specialized training will be provided for activities such as the handling of unidentified substances. Employees involved in these types of activities will be given off-site instruction regarding the potential hazards involved with such activities and the appropriate health and safety procedures to be followed. Off-site instruction is meant to include any areas where employees will not be exposed to site hazards.

5.3 Other Required Training

Other training that may be required by workers that is in addition to required training described above is detailed below:

- Hazard communication, in accordance with 29 CFR 1910.1200
- Respirator use, in accordance with 29 CFR 1910.134
- Hearing conservation, in accordance with 29 CFR 1910.95
- Working safely around heavy equipment
- Heat and cold stress prevention
- Confined space entry, in accordance with 289 CFR 1910.146

5.4 Pre-Entry Briefing

A site-specific briefing will be provided to all individuals, including site visitors, who enter this site beyond the site entry point. For visitors, the site-specific briefing provides information about site hazards, the site lay-out including work zones and places of refuge, the emergency alarm system and emergency evacuation procedures, and other pertinent safety and health requirements as appropriate.

The SSHC will brief personnel as to the potential hazards likely to be encountered. Topics will include:

- Availability of this HASP.
- General site hazards and specific hazards in the work areas, including those attributable to the chemicals present.
- Selection, use, testing and care of the body, eye, hand and foot protection being worn, with the limitations of each.
- Decontamination procedures for personnel, their personal protective equipment, and other equipment used on the site.
- Emergency response procedures and requirements.
- Emergency alarm systems and other forms of notification, and evacuation routes to be followed.
- Methods to obtain emergency assistance and medical attention.

5.5 Training Records

Written certification of the successful completion of applicable training requirements for each worker will be maintained on-site during the course of the investigation. Written certificates have been given to each person so certified. Additionally, an employee sign off sheet indicating that each worker has reviewed a copy of this HASP and understands its contents is stored at the same location.

6.0 Health and Safety Field Implementation

6.1 Personal Protective Equipment Requirements

The requirements for personal protective equipment (PPE) are outlined in Table B-4. Level D protection will initially be worn for excavation activities. Level C protection may be used, based upon a sustained (five (5) minutes or more) readings above five (5) parts per million (ppm) measured with the photoionization detector (PID). The emissions from gasoline or diesel-powered excavation equipment may affect PID readings. At the start of work (excavation equipment in operation, but prior to exposing contaminated soils), an ambient PID reading will be established. This ambient PID reading will be subtracted from subsequent readings to evaluate PPE usage.

Table B-4
Personal Protective Equipment (PPE) Requirements

Job Tasks	Level of Protection	PPE						
		Suit	Gloves	Feet	Head	Eye	Ear	Respirator
Down-grade	Modified D	Std.	Neoprene or Nitrile	Steel + Booties	HH	Glasses/ Goggles	Plugs/ Muffs	N/A
All on-site	C	PE Tyvek	Neoprene or Nitrile	Steel + Booties	HH	N/A	Plugs/ Muffs	Full APR w/OV& N100

Personal Protective Equipment

SUIT:
Std = Standard Work Clothes
PE Tyvek = Polyethylene-coated Tyvek

FEET:
Steel = Steel-toe Boots
Booties = PVC or Latex Booties

HEAD:
HH = Hard Hat

EYE:
Glasses = Safety Glasses w/side shields
Goggles = Safety Goggles

Personal Protective Equipment

EAR:
Plugs = Ear Plugs
Muffs = Ear Muffs

RESPIRATOR:
APR = Air-purifying respirator
Full APR = Full-face APR
OV = Organic vapor cartridge
N100 = N100 particulate filters

6.2 Community Air Monitoring Plan

The Site Manager or designee will conduct air monitoring in accordance with the New York State Department of Health (NYSDOH) Community Air Monitoring Plan. Direct reading instruments will be calibrated in accordance with manufacturer's requirements and the results of the calibration will be documented.

This Community Air Monitoring Plan (CAMP) sets forth the procedures for performing real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area with respect to specific subsurface intrusive activities to be completed as part of the IRM. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses, and on-site or nearby workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

Continuous monitoring will be required for all subsurface intrusive excavation activities**.** The various field instruments that will be used by on-site personnel to perform the continuous air monitoring are listed in Table B-5 below. Subsurface intrusive activities include, but are not limited to, soil excavation and handling.

VOCs will be monitored at the downwind perimeter of the site, outside the existing building on a continuous basis with the use of a Photoionization detector (PID). Upwind concentrations will be measured at the start of each workday and periodically thereafter to establish background conditions.

- If the ambient air concentration of total organic vapors at the downwind perimeter of the site exceeds five (5) parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below five (5) ppm over background, work activities can resume with continued monitoring.
- If total organic vapor levels at the downwind perimeter of the site persist at levels in excess of five (5) ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below five (5) ppm over background for the 15-minute average.

- If the organic vapor level is above 25 ppm at the perimeter of the site, activities must be shutdown.

All 15-minute readings will be recorded and made available for NYSDEC and NYSDOH personnel to review. Instantaneous readings, if any, used for decision making purposes will also be recorded.

Particulate concentrations will also be monitored continuously at the upwind and downwind perimeters of the exclusion zone or work area during the performance of the IRM. The particulate monitoring will be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment will be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration will be visually assessed during all work activities.

- If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques will be employed. Work may continue with dust suppression techniques if downwind PM-10 particulate levels do not exceed 150 mcg/m^3 above the upwind level and if no visible dust is migrating from the work area.
- If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m^3 above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume if dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m^3 of the upwind level and in preventing visible dust migration.

All readings will be recorded and made available for NYSDEC and NYSDOH personnel to review.

Table B-5
Monitoring Protocols and Contaminant Action Levels

Contaminant/ Atmospheric Condition	Monitoring Equipment	Monitoring Protocol	Breathing Zone* Action Level Concentrations	
			Monitored Level For Mandatory Respirator Use**	Monitored Level For Mandatory Work Stoppages***
VOCs	Photoionization detector (PID) with an 10.6 eV lamp	Initially readings will be recorded every 15 minutes. If no sustained readings are obtained in the breathing zone, readings will be recorded every 30 minutes.	5 ppm above background	25 ppm above background

Table B-5
Monitoring Protocols and Contaminant Action Levels

Contaminant/ Atmospheric Condition	Monitoring Equipment	Monitoring Protocol	Breathing Zone* Action Level Concentrations	
			Monitored Level For Mandatory Respirator Use**	Monitored Level For Mandatory Work Stoppages***
Particulates	MiniRam or Dusttrak or Equivalent	Continuously during intrusive activities that can generate dust, e.g. monitoring well installation, test pits		150 ug/m3 at fence line (institute engineering controls to control dust) per NYSDEC TAGM 4031

* Monitoring performed in the breathing zone for sustained readings of 5 minutes or more. Monitor source first; if the source is near or above the action level concentration, monitor in the breathing zone.
** Monitored levels will require the use of approved respiratory protection specified in Table B-3.
*** Consult the Site manager.

6.3 Decontamination Procedures

Depending on the specific job task, decontamination may include personnel themselves, tools, and/or heavy equipment. The specified level of protection for a task (A, B, C, or D) does not itself define the extent of personal protection or equipment decontamination. For instance, Level C without dermal hazards will require less decontamination than Level C with dermal hazards. Heavy equipment will always require decontamination to prevent cross-contamination. The following sections summarize general decontamination protocols.

6.3.1 Heavy Equipment

Heavy equipment will be decontaminated prior to personnel decontamination. Heavy equipment, drilling rods, augers and/or buckets will be steam cleaned after use at the designated decontamination area. In addition, containment systems will be set-up at the designated decontamination area for collection of decon fluids and materials.

6.3.2 Personnel

In general, decontamination involves scrubbing with a non-phosphate soap/water solution followed by clean water rinses. Disposable items will be disposed of in a dry container.

Reusable protection will be washed with soap and clean potable water and air-dried prior to storage. Dirt, oil, grease or other foreign materials that are visible will be removed from surfaces. Scrubbing with a brush may be required to remove materials that adhere to the surfaces. Certain parts of contaminated respirators, such as harness assemblies and leather or cloth components, are difficult to decontaminate. If grossly contaminated, they may be discarded in a designated container. Rubber components can be soaked in soap and water and scrubbed with a brush.

The following decontamination protocol will be used, as appropriate to the level of PPE being used:

- Drop hand tools and equipment in the designated decontamination area.
- Either wash outer rubber boots or dispose of booties.
- Rinse outer boots.
- Wash and rinse outer gloves.
- Remove outer boots and gloves, dispose gloves if necessary in the container designated for PPE waste.
- Replace cartridges if required.
- Remove and dispose Tyvek coverall in the designated PPE waste container.
- Remove respirator, dispose cartridges as required in the container designated for PPE waste.
- Personnel should wash their respirator at the end of each workday.

6.3.3 Decontamination Wastes and Investigation Derived Wastes

Decontamination wash and rinse waters and investigation derived wastes (IDW) will be managed according to applicable regulatory guidelines.

- Spent decon solutions may be required to be drummed and disposed of as hazardous waste and/or solvent solutions may be required to be segregated from water rinses.
- Decontamination shall be performed in a manner that minimizes the amount of waste generated.
- IDW may be required to be drummed and disposed of as hazardous waste.

7.0 Site Operating Procedures

These following guidelines comply with the established guidelines of the Barton & Loguidice, P.C., Corporate Health and Safety Program:

All field investigation activities must be coordinated through the Site Manager.

During any activity conducted on-site in which a potential exists for exposure to hazardous materials, accident or injury, at least two (2) persons must be present who are in constant communication with each other. At least two (2) persons must also be present during all demolition or excavation activities.

Samples obtained from areas known or suspected to contain contaminated substances or materials must be handled with appropriate personal protection equipment.

All equipment used to conduct the Site Investigation must be properly decontaminated and maintained in good working order. Equipment must be inspected for signs of defects and/or contamination before and after each use.

The discovery of any condition that would suggest the existence of a situation more hazardous than anticipated will result in the evacuation of the activity zone until a complete evaluation of the hazard can be performed.

7.1 Daily Operating Procedures

The following are the daily operating procedures that are to be followed by on-site personnel:

- Hold Tailgate Safety Meetings prior to work start and as needed thereafter (suggest daily; however, minimum of weekly).
- Use monitoring instruments and follow designated protocol and contaminant action levels.
- Use PPE as specified.
- Use hearing protection around heavy equipment.
- Remain upwind of operations and airborne contaminants, if possible.
- Establish a work/rest regimen when ambient temperatures and protective clothing create potential thermal hazards.
- Eating, drinking, applying cosmetics and smoking are prohibited in work areas.
- Refer to the SSHC for specific safety concerns for each individual site task.
- On-site personnel are encouraged to be alert to their own physical condition, as well as their co-workers.
- **All accidents, no matter how minor,** must be immediately reported to the SSHC.

7.2 Site Control

The purpose of site control is to minimize the exposure of site workers to potential contamination, protect the public from the site's hazards, and prevent vandalism. The degree of site control necessary depends on site characteristics and the surrounding community. At this time, there are no access restrictions to the site. During the field activities, Barton & Loguidice, P.C. (B&L), and Steel Treaters are requesting that personnel, subcontractors and visitors report to the on-site B&L supervisor prior to entering the work area.

Since there are no access restrictions to the Site, particular attention will be placed on the condition of the site regarding three (3) main work zone areas:

Activity Zone

This zone applies to the immediate work area and includes all materials, equipment, vehicles and personnel involved in the site activity. For example, during the installation of a monitoring well, the activity zone will encompass the borehole, drilling rig, monitoring well construction materials and equipment, sampling equipment, decontamination supplies, and drilling/well inspection personnel. Site control measures will include flagging the perimeter of the activity zone to clearly mark the limits of work and to warn passers-by and visitors of the site activity. In addition, the site supervisor will maintain communication with City personnel as the location of this zone (and the type of work being performed) changes throughout the project.

The required level of PPE in the activity zone can vary according to job assignment. This will allow a flexible, effective, and less costly operation, while still maintaining a high degree of safety.

This area will be limited to authorized personnel from B&L, regulatory agencies, and contractors/subcontractors to the B&L and/or Steel Treaters. Personnel entering this area will be required to comply with their own HASP that is at least as stringent as this HASP.

Decontamination Zone

In order to prevent incidental contact with contaminants on investigation equipment or in the wash water, activities within the decontamination area will be completed before subsequent site work or other activity begins. This includes:

- Complete removal of contaminants on all equipment used during the preceding phase of the investigation;
- Placement of the waste wash water and sediment in sealed drums;
- Storage of the drums in a secure and out-of-the-way place for future disposal;
- Proper labeling of drum contents;
- Cleanup (if necessary) of area outside of decontamination area; and

Support Zone

The support zone is the location of the administrative and other support functions needed to keep the operations in the activity and decontamination zone running smoothly. Any function that need not or cannot be performed in a hazardous atmosphere is performed here. Personnel may wear normal work clothes within this zone. Any potentially contaminated clothing, equipment and samples must remain in the decontamination zone until decontaminated. All emergency telephone numbers, change for the telephone (if necessary), evacuation route maps, and vehicle keys should be kept in the support zone.

The SSHC will establish a decontamination system and decontamination procedures appropriate to the site and the work that will prevent potentially hazardous materials from leaving the site. All personnel exiting the activity zone will be decontaminated prior to entering the support zone. The decontamination procedures will be reviewed at each daily safety briefing.

Personal hygiene facilities meeting at least the minimum requirements of 29 CFR Part 1910.120 will be provided nearby.

Upon completion of the day's activities, heavy machinery and equipment will be stored securely within the site, or at a location selected by the SSHC.

7.3 Buddy System

Most activities in a contaminated or otherwise hazardous area should be conducted with a partner who is able to:

- Provide his or her partner with assistance.
- Observe his or her partner for signs of chemical or heat exposure.
- Periodically check the integrity of his or her partner's protective clothing.
- Notify the SSHC if emergency help is needed.

7.4 Engineering Controls

Engineering controls and work practices are primarily for limiting exposure through application of engineered barriers. They will be applied to this project when and where they are practicable. The following engineering controls may be applied on this project: water spray, covering of materials, site preparation to facilitate operations and remove obvious physical hazards, and warning alarms/devices.

8.0 Emergency Response Procedures

8.1 Pre-Emergency Planning

Planning for emergencies is a crucial part of emergency response. The SSHC is responsible for training all employees in potential site hazards and the emergency response procedures.

8.2 Personnel Roles

The SSHC is responsible for responding to, or coordinating the response of, off-site personnel to emergencies. In the event of an emergency, the SSHC will direct all notification, response and follow-up actions. Contacts with outside response personnel (hospital, fire department, etc.) will be done at the direction of the SSHC.

Prior to the start of work on the site, the SSHC will:

1. Notify emergency contacts, and/or health care facilities of the potentially hazardous activities and potential wastes that may develop as a result of the activities performed on-site;
2. Confirm that the following safety equipment is available: eyewash and safety shower station, first aid supplies, air horn, and fire extinguishers;
3. Have a working knowledge of the safety equipment available; and
4. Confirm directions to the hospital are prominently posted with the emergency telephone numbers.

Employees who will respond to emergencies involving hazardous materials will be trained in how to respond to such emergencies.

The SSHC will check daily to see that the following safety equipment is available at the site: eyewash station, first aid supplies, and fire extinguisher.

The SSHC will be responsible for directing notification, response and follow-up actions and for contacting outside response personnel (ambulance, fire department or others) prior to and during an emergency. Upon notification of an exposure incident, the SSHC will call the Hospital and fire and police emergency response personnel for recommended medical diagnosis, treatment, if necessary, and transportation to the hospital.

The SSHC must conduct an investigation of the incident as soon as possible. The SSHC will determine whether and at what levels exposure actually occurred, the cause of such exposure, and the means to prevent similar incidents from occurring. The resulting report must be accurate, objective, complete and signed and dated.

8.3 Safe Distances and Places of Refuge

In case of an emergency, a designated off-site area will serve as the immediate place of refuge. Personnel in the exclusion zone should evacuate through the decontamination zone to the refuge location, both for their own personal safety and to prevent hampering response/rescue efforts. Following an evacuation, the SSHC will account for on-site personnel. If evacuation from the work site is necessary, the project vehicles will be used to transport on-site personnel to a place of refuge.

8.4 Emergency Communications

There will be a cellular telephone located in either the Site Manager's and/or SSHC's vehicle for emergency use. Emergency telephone numbers are listed in Attachment 7 of this HASP. There will be air horns, walkie-talkies, and/or other audible emergency signals located within the exclusion zone and decontamination area to signal others of an emergency. The SSHC should brief all personnel regarding audible emergency signals to be used during the site activities prior to starting the work. Site personnel will use the following hand signals to inform others of emergencies:

- Hand gripping throat - out of air, cannot breathe.
- Grip partner's wrist or both hands around waist - leave area immediately.
- Hands on top of head - need assistance.
- Thumbs up - everything's OK, or I understand.
- Thumbs down – No.

8.5 Emergency Procedures

The nature of work at a contaminated or potentially contaminated work site makes emergencies a continual possibility. Although emergencies are unlikely and occur infrequently, a contingency plan is required to assure timely and appropriate response actions. The contingency plan is reviewed at tailgate safety meetings.

8.5.1 Incident Procedures

If an emergency incident occurs, the following actions will be taken:

1. Size-up the situation based upon available information.
2. Notify the SSHC.
3. Only respond to an emergency if personnel are sufficiently trained and properly equipped.
4. As appropriate, evacuate site personnel and notify emergency response agencies, e.g., police, fire, etc.

5. As necessary, request assistance from outside sources and/or allocate personnel and equipment resources for the response.
6. Consult the posted emergency telephone list and contact key project personnel.
7. Prepare an incident report.

All site personnel should be aware of the location of fire fighting equipment. Personnel shall only extinguish minor fires. Large fires will require contacting the local fire department and allowing them to handle the fire. The local fire department will be contacted prior to initiating site activities to inform them of the potential hazardous materials that could be encountered in an emergency.

8.5.2 Medical Emergencies

In the event of an accident or injury, workers will immediately implement emergency decontamination and isolation measures to assist those who have been injured or exposed and to protect others from the hazards. Upon notification of an exposure incident, the SSHC will contact the emergency response personnel who can provide medical diagnosis and treatment. If necessary, immediate medical care will be provided by trained personnel competent in first aid procedures. Trained personnel competent in such matters will only provide other on-site medical and/or first aid response to an injury or illness.

If an individual is transported to a hospital or doctor, a copy of this HASP will accompany the individual.

The SSHC will be notified when an accident or incident occurs and will respond according to the seriousness of the incident. The SSHC will investigate facility/site conditions to determine whether and at what levels exposure actually occurred, the cause of such exposure and the means to be taken to prevent the incident from recurring.

The SSHC and the exposed individual will complete an exposure-incident investigation. The SSHC will prepare a signed and dated report documenting the investigation. The SSHC and the exposed individual will also complete an exposure-incident reporting form. The form will be filed with the employee's medical and safety records to serve as documentation of the incident and the actions taken.

Emergency first aid may include taking care of minor scrapes to performing CPR. All site personnel should be familiar with the location of the site first aid kits. The site safety officer should be trained in first aid and CPR. Contacting hospital and/or emergency agencies shall be made on a case by case basis depending on the severity of the injury. If an off-site emergency agency is contacted, all the details relating to the injury should be relayed to that agency. All site injuries should be documented. The following actions should be taken if someone requires first aid:

1. Survey the scene to determine if it is safe to reach the injured person.

2. Ask the injured person what happened. If the person is unconscious, look for signs as to what may have occurred.
3. See if there are others injured.
4. Reassure the victim. Contact others for help; tell them to call the appropriate emergency agency.
5. If it is safe to move the victim, return them back to the field office.

Only trained personnel should perform CPR or rescue breathing on an unconscious victim.

Personnel who experience heat stress or frost bite should be attended to in the following manner:

Heat Stress - Symptoms include cool, pale and moist skin, heavy sweating, headache, and nausea. This person should be removed from the hot environment immediately, and allowed to lie on their back. Apply cold packs or make sure they are in an air-conditioned room. Give them plenty of water and/or electrolyte-replacing fluids. Should a victim experience heat stroke (high body temperature, red skin) the body must be cooled down quickly and receive medical attention immediately. Persons experiencing heat stress or heat stroke should be attended to until the situation has been remedied.

Frostbite - Symptoms include slightly flushed skin that becomes white, pain at extremities in early stages. Get a victim experiencing frostbite to a warm area and put the frostbitten parts in warm (100-105º F) water. Loosely bandage injured parts after soaking.

Hypothermia - Under conditions of cold temperatures and high winds, there is the potential for workers experiencing hypothermia. Signs of hypothermia include: shivering, dizziness, numbness, confusion, or drowsiness. Warm up this person's body with dry clothes and a blanket, if available. Call the appropriate emergency agency or take this person to the hospital.

8.6 Emergency Routes

Should an emergency signal be sounded, on-site personnel should immediately stop what they are doing, and return to the decontamination area. Personnel in the decontamination area and the support zone should evaluate the emergency and contact the appropriate off site emergency personnel. Once on site personnel return to the decontamination area, there will be someone there to direct them as to what to do. It is imperative that the SSHC or designated alternate account for all site personnel. The SSHC should direct all personnel to the nearest safe refuge.

The hospital route is included as an attachment.

If the emergency event threatens the surrounding community, it is important that the local police and fire departments be contacted immediately regarding the potential danger.

8.7 Spill Control

A major spill is not anticipated at the site. Should a spill of any type occur, the employee should report it immediately to the SSHC, who will make arrangements for the proper cleanup of the spill. These arrangements will include diking and ditching, as necessary, as well as the use of absorbents such as vermiculite or Speedi Dry. The emergency response personnel will be contacted immediately by SSHC in the event that on-site materials can not immediately contain the spill.

8.8 Personal Protective and Emergency Equipment

There will be suitable equipment on site for small emergency events such as additional PPE, fire extinguishers and first aid kits. In the event of a major emergency event, off-site personnel will be contacted immediately.

8.9 Decontamination Procedures

The extent of emergency decontamination depends on the severity of the injury or illness and the nature of the contamination. Minimum decontamination will consist of detergent washing, rinsing, and removal of contaminated outer clothing and equipment. If time does not permit the completion of all of these actions, it is acceptable to remove the contaminated clothing without washing it. If the situation is such that the contaminated clothing cannot be removed, the person should be given required first aid treatment, and then wrapped in plastic or a blanket prior to transport to medical care. If heat stress is a factor in the victim's illness/injury, the outer protective garment will be removed immediately.

8.10 Evacuation Routes

Unless otherwise directed, evacuation will be made through the decon area to the designated refuge location for a head count.

8.11 Response Critique

Should an incident on-site occur, the SSHC will analyze the response efforts in order to continually improve on-site conditions and procedures. The SSHC must complete follow-up activities before on-site work is resumed following an emergency. Used emergency equipment must be recharged, refilled or replaced. Government agencies must be notified as required in their regulations.

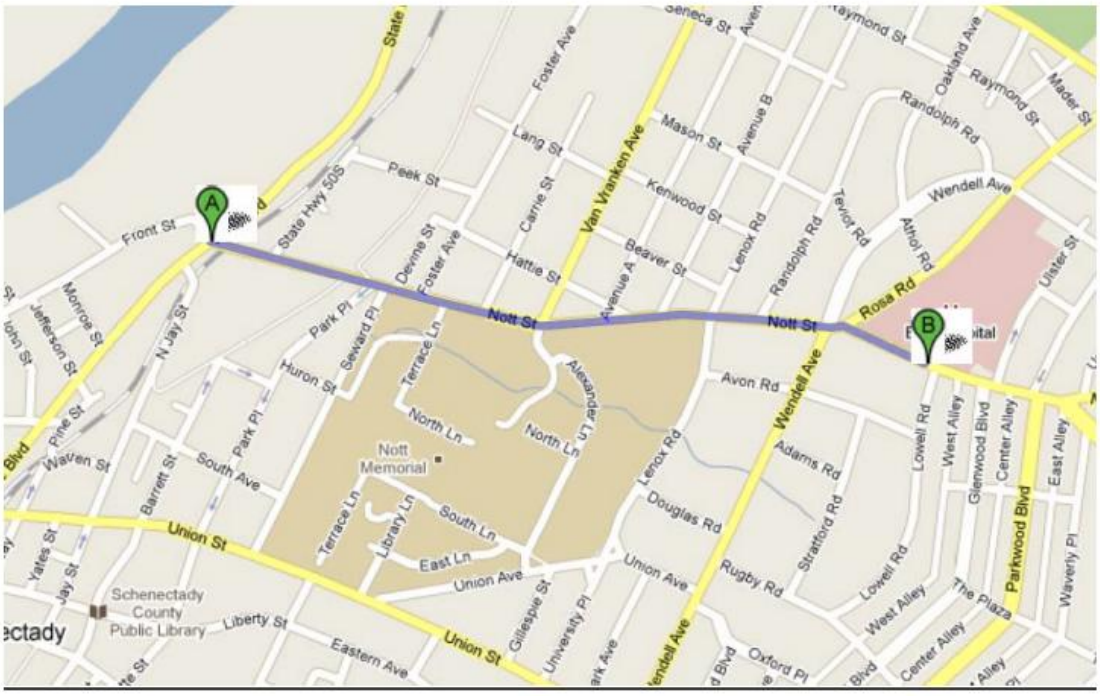
Attachment 1

Driving directions to Ellis Hospital
1.0 mi – about **2 mins**

A 301 Nott St
Schenectady, NY 12305

1. Head **east** on **Nott St** toward **Erie Blvd/Maxon Rd** 1.0 mi
Destination will be on the left

B Ellis Hospital
1101 Nott St
Schenectady, NY



(This should be posted at a conspicuous location at the site.)

Attachment 2

Emergency Contacts
(To Be Posted)

Contact	Person or Agency	Phone Number
Maxon-ALCO Holdings LLC	Steve Luciano	(518) 356-4445
NYSDEC Region 4 Project Manager	John Strang	(518) 357-2390
Law Enforcement	(C) Schenectady PD	911
Fire Department	(C) Schenectady FD	911
Confined Space Rescue (Fire Department)	(C) Schenectady FD	911
Ambulance		911
Hospital - Emergency	Ellis Hospital	(518) 243-4000
B&L Site Manager/Site Safety Officer	Andrew J Barber	(518) 218-1801
B&L Officer-in-Charge	Scott D. Nostrand, P.E.	(315) 457-5200

Appendix B

Manufacturer's Literature

REGENESIS

Advanced Technologies for Contaminated Site Remediation

RANGE OF TREATABLE CONTAMINANTS

	ISCO			Aerobic Bio	Anaerobic Bio				ISCR
RANGE OF TREATABLE CONTAMINANTS	RegenOx®	PetroCleanze®	PersulfOx®	ORC® Advanced	3-D Microemulsion®	HRC®	HRC-X®	BDI® Plus	CRS®
BTEX									
Benzene	✓	✓	✓	✓					
Toluene	✓	✓	✓	✓					
Ethylbenzene	✓	✓	✓	✓					
Xylene	✓	✓	✓	✓					
Petroleum Hydrocarbons									
Gasoline Range Organics (GRO) (C_6-C_{10-12})	✓	✓	✓	✓					
Diesel Range Organics (DRO) (C_{8-12}-C_{24-28})	✓	✓	✓	✓					
Oil Range Organics (ORO) (C_{22-32})	✓	✓	✓	✓					
Creosote (coal tar)	✓	✓	✓	✓					
Oxygenates									
Methyl tert-butyl ether (MTBE)	✓	✓	✓	✓					
Tert-butyl alcohol (TBA)	✓	✓	✓	✓					
Chlorinated Solvents									
Tetrachloroethylene (PCE)	✓	✓	✓		✓	✓	✓	✓	✓
Trichloroethene (TCE)	✓	✓	✓		✓	✓	✓	✓	✓
cis-1,2 Dichloroethene (DCE)	✓	✓	✓	✓	✓	✓	✓	✓	✓
Vinyl chloride (VC)	✓	✓	✓	✓	✓	✓	✓	✓	✓
Tetrachloroethane	✓	✓	✓		✓	✓	✓	✓	✓
Trichloroethane (TCA)	✓	✓	✓		✓	✓	✓	✓	✓
Dichloroethane (DCA)	✓	✓	✓	✓	✓	✓	✓	✓	✓
Carbon tetrachloride	✓	✓	✓		✓	✓	✓		✓
Chloroethane	✓	✓	✓	✓	✓	✓	✓		✓
Chloroform	✓	✓	✓		✓	✓	✓		✓
Chloromethane	✓	✓	✓		✓	✓	✓		✓
Chlorotoluene	✓	✓	✓	✓	✓	✓	✓		✓
Methylene chloride	✓	✓	✓		✓	✓	✓		✓
Dichloropropane	✓	✓	✓		✓	✓	✓		✓
Dichloropropene	✓	✓	✓		✓	✓	✓		✓
Hexachlorobutadiene	✓	✓	✓		✓	✓	✓		✓
Trichloropropane	✓	✓	✓		✓	✓	✓		✓
Bis(2-chloroethyl)ether	✓	✓	✓		✓	✓	✓		✓
Bis(2-chloroethoxy)methane	✓	✓	✓		✓	✓	✓		✓
PAHs									
Acenaphthene	✓	✓	✓	✓					
Acenaphthylene	✓	✓	✓	✓					
Anthracene	✓	✓	✓	✓					
Benzo(a)anthracene	✓	✓	✓	✓					
Benzo(a)pyrene	✓	✓	✓	✓					
Benzo(b)fluoranthene	✓	✓	✓	✓					
Benzo(ghi)perylene	✓	✓	✓	✓					
Bis(2-ethyhexyl)phthalate	✓	✓	✓	✓					
n-butylbenzene	✓	✓	✓	✓					
Chrysene	✓	✓	✓	✓					
Dibenzo(ah)anthracene	✓	✓	✓	✓					
Fluorene	✓	✓	✓	✓					
Naphthalene	✓	✓	✓	✓					
Nitrobenzene	✓	✓	✓	✓					
Phenathrene	✓	✓	✓	✓					
Propylbenzene	✓	✓	✓	✓					
4-iso-propyltoluene	✓	✓	✓	✓					
Pyrene	✓	✓	✓	✓					
Styrene	✓	✓	✓	✓					
Trimethylbenzene	✓	✓	✓	✓					
Chlorobenzenes									
Chlorobenzene	✓	✓	✓	✓					
Dichlorobenzene	✓	✓	✓	✓					
Trichlorobenzene	✓	✓	✓	✓					
Phenols									
Phenol	✓	✓	✓	✓					
4-chloro-3-methyl phenol	✓	✓	✓	✓					
2-chlorophenol	✓	✓	✓	✓					
2,4-dichlorophenol	✓	✓	✓	✓					
2,4-dinitrophenol	✓	✓	✓	✓					
4-nitrophenol	✓	✓	✓	✓					
Pentachlorophenol				✓	✓	✓	✓		✓
Haloalkanes									
Dichlorodifluoromethane (Freon 12)					✓	✓	✓		✓
Trichlorofluoromethane (Freon 11)					✓	✓	✓		✓
Trichlorotrifluoroethane (Freone 113)					✓	✓	✓		✓
Pesticides & Herbacides									
α-Chlordane					✓	✓	✓		✓
Heptachlor Epoxide					✓	✓	✓		✓
Lindane (hexachlorocyclohexane)					✓	✓	✓		✓
DDT, DDD, DDE					✓	✓	✓		✓
Toxaphene					✓	✓	✓		✓
Dieldrin					✓	✓	✓		✓
2,4-D					✓	✓	✓		✓
2,4,5-T					✓	✓	✓		✓
Endrin					✓	✓	✓		✓
Energetics									
TNT	✓	✓	✓		✓	✓	✓		✓
DNT	✓	✓	✓		✓	✓	✓		✓
Nitroglycerine	✓	✓	✓		✓	✓	✓		✓
HMX	✓	✓	✓		✓	✓	✓		✓
RDX	✓	✓	✓		✓	✓	✓		✓
Miscellaneous									
Acetone	✓	✓	✓	✓	✓	✓	✓		
4-methyl-2-pentanone	✓	✓	✓	✓					
Perchlorate					✓	✓	✓		✓
Polychlorinated biphenyls (PCBs)									
Nitrates					✓	✓	✓		✓
Carbon Disulfide (CS2)	✓	✓	✓		✓	✓	✓		
1,4-dioxane			✓		✓	✓	✓		
Heavy Metals									
Chromium (VI)					✓	✓	✓		✓

For additional information or a free application design and cost estimate call 1-949-366-8000 or visit www.regenesis.com

PersulfOx™

PersulfOx™
CATALYZED PERSULFATE

A Sodium Persulfate - Based *In Situ* Chemical Oxidant with Built-In Activation

DESCRIPTION

PersulfOx™ is an *in situ* chemical oxidation reagent that destroys organic contaminants found in groundwater and soil through powerful yet controlled chemical reactions. PersulfOx is a sodium persulfate ($Na_2S_2O_8$) - based technology which employs a uniquely patented catalyst to enhance oxidative destruction of both hydrocarbon and chlorinated contaminants in the subsurface.

Traditionally, sodium persulfate is activated with the addition of heat, chelated metals, hydrogen peroxide, or base in order to generate sulfate radicals. These activation processes are inherently complex, costly and can pose additional health and safety risks. In comparison, PersulfOx is a relatively safe and easy-to-use ISCO agent.

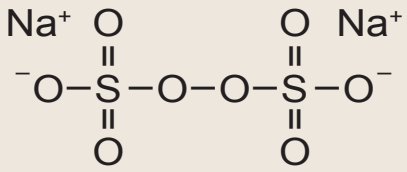


FIGURE 1:
SODIUM PERSULFATE CHEMICAL STRUCTURE

In short, PersulfOx contains a built-in catalyst which activates the persulfate component and generates contaminant destroying free radicals without the need for the addition of a separate activator.

FEATURES & BENEFITS

- Promotes rapid and sustained *in situ* oxidation of a wide-range of organic contaminants
- Provides a unique catalytic surface on which oxidants and contaminants react in a process known as "surface mediated oxidation."
- Contains built-in activation: eliminates complex and potentially hazardous chemical addition required to achieve traditional persulfate activation
- Fewer health and safety concerns than with use of traditional activation methods such as heat, chelated metals, hydrogen peroxide or base
- Single component product results in simplified logistics and application. No additional containers and/or multi-step mixing ratios required prior to application
- Contaminant oxidation performance equivalent to best alternative persulfate activation methods

FUNCTION

PersulfOx is an all-in-one product that provides powerful and highly efficient chemical oxidation performance. It is easily mixed with water and applied into the contaminated matrix using subsurface injection techniques or soil mixing tools.

The PersulfOx catalyst is a silica based, microscopic surface on which oxidants and contaminants can come together and react in a distinct process known as "surface mediated oxidation." During this process, oxidation reactions occur repeatedly on the surface of the catalyst serving several contaminant-reducing functions:

- The generation of sulfate radical and other oxidizing species
- Accelerated oxidation through the adsorption of contaminant molecules and other oxidizing species
- Catalyzes direct and free-radical-mediated oxidation by sodium persulfate

The equation below shows the net complete oxidation of toluene, a constituent of gasoline, by PersulfOx:

For a Free Consultation and Application Design for the use of PersulfOx visit www.regenesis.com

REGENESIS
Advanced Technologies for Contaminated Site Remediation

REGENESIS / 1011 Calle Sombra / San Clemente / CA 92673-6244 / USA / T: 949.366.8000 / F: 949.366.8090 / www.regenesis.com

PersulfOx

Material Safety Data Sheet (MSDS)

Last Revised: February 8, 2013

Section 1 – Supplier Information and Material Identification

Supplier:

REGENESIS
1011 Calle Sombra
San Clemente, CA 92673
Telephone: 949.366.8000
Fax: 949.366.8090
E-mail: info@regenesis.com

Chemical Synonyms:	A mixture of Sodium Persulfate [$Na_2S_2O_8$] and Sodium Silicate [Na_2SiO_3].
Chemical Family:	Inorganic Chemicals
Trade Name:	PersulfOx™
Product Use:	Used to remediate contaminated soil and groundwater (environmental remediation applications)

Section 2 – Chemical Information/Other Designations

CAS No.	Chemical	Percentage
7775-27-1	Sodium Persulfate	90%
1344-09-8	Sodium Silicate	10%

Section 3 – Physical Data

Form:	Solid, free-flowing powder
Color:	White
Odor:	Odorless
Melting Point:	NA
Boiling Point:	NA
Flammability/Flash Point:	Non-combustible
Vapor Pressure:	NA
Bulk Density:	NA
Viscosity:	NA
pH (10% solution):	≈ 7.0 – 11.5 @ 25 °C
Decomposition Temperature:	Decomposition will occur upon heating.

Section 4 – Reactivity Data

Stability:	Stable under normal conditions. Stability decreases in the presence of heat, moisture and/or contamination.
Conditions to Avoid/Incompatibility:	Acids, alkalis, halides (fluorides, chlorides, bromides and iodides), Combustible materials, most metals and heavy metals, oxidizable materials, other oxidizers, reducing agents, cleaners, and organic or carbon containing compounds, moisture, heat, flame. Contact with incompatible materials can result in a material decomposition or other uncontrolled reactions.
Hazardous Decomposition Products:	Oxygen that supports combustion and oxides of sulfur.
Polymerization	Will not occur

Section 5 – Regulations

UNITED STATES

SARA TITLE III (SUPERFUND ADMENDMENTS AND REAUTHORIZATION ACT)

Section 302 Extremely Hazardous Substances (40 CFR 335, Appendix A):	N/A
Section 311 Hazard Categories (40 CFR 370):	Fire Hazard, Immediate (Acute) Health Hazard
Section 312 Threshold Planning Quantity (40 CFR 370):	The Threshold Planning Quantity (TPQ) for this product, if treated as a mixture, is 10,000 lbs; however, this product contains the following ingredients with a TPQ of less than 10,000 lbs.: None
Section 313 Reportable Ingredients (40 CFR 372):	Not Listed

CERCLA (COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT)

CERCLA Designation & Reportable Quantities (RQ) (40 CFR 302.4):	Unlisted, RQ = 100 lbs., Ignitability

Section 6 – Protective Measures, Storage and Handling

Technical Protective Measures

Storage:

Oxidizer. Store in a cool, clean, and well ventilated area away from all sources of ignition and out of the direct sunlight. Store in a dry location away from heat and in temperatures less than 40 °C.

Keep away from incompatible materials and keep lids tightly closed. Do not store in improperly labeled containers.

Protect from moisture. Do not store near combustible materials. Keep containers well sealed.

Store separately from reducing materials. Avoid contamination which may lead to decomposition.

Handling:

Avoid contact with eyes, skin and clothing. Use with adequate ventilation. Wear respiratory protection if ventilation is inadequate or not available. Use eye and skin protection. Use clean plastic or stainless steel scoops only.

Do not swallow. Avoid breathing vapors, mists or dust. Do not eat, drink or smoke in the work area. Wash hands thoroughly after handling.

Label containers and keep them tightly closed when not in use.

Personal Protective Equipment (PPE)

Engineering Controls:

General room ventilation is required if used indoors. Local exhaust ventilation, process enclosures or other engineering controls may be needed to maintain airborne levels below recommended exposure limits. Avoid creating dust or mists. Maintain adequate ventilation at all times. Do not use in confined areas. Keep levels below recommended exposure limits. To determine actual exposure limits, monitoring should be performed on a routine basis. General use of persulfates will generate thermal and pressure regimes which need to mitigated during application as a precautionary measure.

Respiratory Protection:

Use NIOSH(P100) approved respirator when airborne dust is expected.

Exposure Limit

0.1 mg/m^3 (TWA) - ACGIH

Hand Protection:

Wear chemical resistant gloves (neoprene, rubber, or PVC). Thoroughly wash the outside of gloves with soap and water prior to removal.

Section 6 – Protective Measures, Storage and Handling (cont)

Eye Protection:	Wear chemical safety goggles. A full face shield may be worn in lieu of safety goggles.
Skin Protection:	Try to avoid skin contact with this product. Chemical resistant gloves (neoprene, PVC or rubber) and protective clothing should be worn during use.
Protection Against Fire & Explosion:	Product is non-explosive. In case of fire, evacuate all non-essential personnel, wear protective clothing and a self-contained breathing apparatus, stay upwind of fire, and use water to spray cool fire-exposed containers. Presence of water accelerates decomposition.

Section 7 – Hazards Identification

Potential Health Effects

Inhalation:	May be harmful and irritating.
Eye Contact:	Non-irritating (rabbit)
Skin Contact:	Non-irritating (rabbit)
Ingestion:	May be harmful if swallowed (vomiting and diarrhea).
Target Organs:	Eyes, skin, respiratory passages

Section 8 – Measures in Case of Accidents and Fire

After Spillage/Leakage:	Spilled material should be collected and put in approved DOT container and isolated for disposal. Isolated material should be monitored for signs of decomposition (fuming/smoking). If spilled material is wet, dissolve with large quantity of water and dispose as a hazardous waste. All disposals should be carried out according to regulatory agencies procedures.
Extinguishing Media:	Water; Do not use carbon dioxide or other gas filled fire extinguishers; they will have no effect on decomposing persulfates. Wear full protective clothing and self contained breathing apparatus.

First Aid

Eye Contact:	Flush eyes with running water for at least 15 minutes with eyelids held open. Seek a specialist.
Inhalation:	Remove affected person to fresh air. Seek medical attention if the effects persist.
Ingestion:	Rinse mouth with water, give two-four cups of water to dilute the chemical and seek medical attention immediately. Never give anything by mouth to an unconscious person. **Do Not** induce vomiting.
Skin Contact:	Wash affected areas with soap and a mild detergent and large amounts of water. Seek medical attention if irritation occurs or persists.

Notes to Medical Doctor: This product has low oral toxicity and is not irritating to the eyes and skin. Flooding of exposed areas with water is suggested, but gastric lavage or emesis induction for ingestions must consider possible aggravation of esophageal injury and the expected absence of system effects. Treatment is controlled removal of exposure followed by symptomatic and supportive care.

Section 9 – Accidental Release Measures

Precautions:

Cleanup Methods: Spilled material should be collected and put in approved DOT container and isolated for disposal. Isolated material should be monitored for signs of decomposition (fuming/smoking). If spilled material is wet, dissolve with large quantity of water and dispose as a hazardous waste. All disposals should be carried out according to local regulatory agencies procedures.

Section 10 – Information on Toxicology

Toxicity Data

Oral LD_{50} (rat): 895 mg/kg

Dermal LD_{50} (rabbit): > 10 g/kg

Inhalation LD_{50} (rat): 5.1 mg/kg

Section 11 – Information on Ecology

Ecotoxicological Information

Bluegill sunfish, 96-hour LC_{50} = 771 mg/L

Rainbow trout, 96-hour LC_{50} = 163 mg/L

Daphnia, 48-hour LC_{50} = 133 mg/L

Grass shrimp, 96-hour LC_{50} = 519 mg/L

Biotic Degradation: N/A.

Section 12 – Disposal Considerations

Waste Disposal Method: Dispose of in an approved waste facility operated by an authorized contactor in compliance with local, state and federal regulations.

Section 13 – Shipping/Transport Information

D.O.T. Shipping Name:	Oxidizing Solid, n.o.s. (a mixture of Sodium persulfate, sodium metasilicate and silicon dioxide)
UN Number:	UN 1479
Hazard Class:	5.1 (Oxidizer)
Labels:	5.1 (Oxidizer)
Packaging Group:	III

Section 14 – Other Information

HMIS® Rating	Health – 1 (Slight)	Physical Hazard – 1 (Slight)
	Flammability – 0 (None)	Lab PPE – goggles, gloves, apron, dust respirator

HMIS® is a registered trademark of the National Painting and Coating Association.

NFPA	Health – 1 (Slight)	Reactivity – 1 (Slight)
	Flammability – 0 (None)	Special - Oxidizer

Section 15 – Further Information

The information contained in this document is the best available to the supplier at the time of writing, but is provided without warranty of any kind. Some possible hazards have been determined by analogy to similar classes of material. The items in this document are subject to change and clarification as more information become available. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person. Individuals receiving this information must exercise their independent judgment in determining its appropriateness for a particular purpose.

Geosynthetic Clay Liner

BENTOFIX® NSL

NSL

Thermal Lock® Geosynthetic Clay Liners

Bentofix Thermal Lock® NSL Geosynthetic Clay Liner (GCL) is a needlepunched, thermally reinforced composite comprised of a core of natural sodium Wyoming bentonite clay between two durable geotextile layers to form a low permeability hydraulic barrier. The top layer is a staple fiber nonwoven (NW) geotextile while the bottom layer is a woven (W) geotextile. The product is intended for moderate to steep slopes and moderate to high load applications where increased internal shear strength is required.

Property	ASTM Test Method	Frequency	Value Imperial Units	Value Metric Units
Typical Geotextile Properties				
• Top / Cap Nonwoven	D 5261	200,000 sq ft (20,000 m^2)	6.0 oz./yd^2 MARV	200 g / m^2 MARV(1)
• Woven			3.1 oz./yd^2 MARV	105 g / m^2 MARV
Bentonite Properties (SI Units Only)				
• Swell Index	D 5890	100,000 lbs.	24 ml/ 2 g min	24 ml/ 2 g min
• Moisture Content	D 4643	(50,000 kg)	12 % max	12 % max
• Fluid Loss	D 5891	100,000 lbs.	18 ml max	18 ml max
• Smectite (Montmorillonite)	XRD		90% min.	90% min.
Finished GCL Properties				
• Bentonite Mass/Unit Area[2]	D 5993	40,000 ft^2 (4,000 m^2)	0.75 lbs/ft^2 MARV	3.66 kg/m^2 MARV
• Tensile Strength[3]	D 6768	40,000 ft^2 (4,000 m^2)	30 lb/in MARV	5 kN/m MARV
• Peel Strength	D 6496	40,000 ft^2 (4,000 m^2)	3.5 lbs/in min	610 N/m min
• Permeability[4]	D 5887	Weekly	5 x 10^{-9} cm/s max	5 x 10^{-9} cm/s max
• Index Flux[4]	D 5887	Weekly	1 x 10^{-8} $m^3/m^2/s$ max	1 x 10^{-8} $m^3/m^2/s$ max
• Internal Shear Strength[5]	D 6243	Periodic	500 psf Typical	24 kPa Typical

(1) Minimim Average Roll Value.
(2) Oven-dried measurement. Equates to 0.84 lb/sqft (4.1 kg/m^2) when indexed to 12% moisture content.
(3) Tested in machine direction.
(4) Deaired, deionized water @ 5 psi (34.5 kPa) maximum effective confining stress and 2 psi (13.8 kPa) head pressure.
(5) Typical peak value for specimen hydrated for 24 hours and sheared under a 200 psf (9.6 kPa) normal stress.

- - Roll width and lengths have a tolerance of +/- 1%. Standard rolls are 4.72m x 45.72m (15.5 feet by 150 feet). Rolls can be made longer if required and/or specified, however require advance notice.
- - Packaged weight of standard rolls is listed at 2,600 lbs – 1179 kg.

The information contained herein has been compiled by TAG Environmental Inc.. and is, to the best of our knowledge, true and accurate. This information is offered without warranty. Final determination of suitability for use contemplated is the sole responsibility of the user. This information is subject to change without notice. Bentofix is a registered trademark of Naue. TAG is a division of Terrafix Geosynthetics Inc. 01-2015

PRODUCT DATA SHEET

GSE BentoLiner CNSL Geosynthetic Clay Liner

GSE BentoLiner "CNSL" is a needle-punched reinforced composite geosynthetic clay liner (GCL) comprised of a uniform layer of granular sodium bentonite encapsulated between a woven and a nonwoven geotextile with a uniform polypropylene geofilm coating applied to the woven surface to lower the hydraulic conductivity. The product is intended for applications that require excellent hydraulic conductivity properties and/or bentonite protection for moderate to steep slopes and moderate to high load applications where increased internal shear strength is required.

[*]

AT THE CORE:

This composite clay liner is intended for applications that require excellent hydraulic conductivity properties and/or the self-seaming characteristics of bentonite clay.

Product Specifications

Tested Property	Test Method	Frequency	VALUE
Geotextile Property			
Cap Nonwoven, Mass/Unit Area	ASTM D 5261	1/200,000 ft²	6.0 oz/yd² MARV(1)
Carrier Woven, Mass/Unit Area	ASTM D 5261	1/200,000 ft²	3.1 oz/yd² MARV
Bentonite Property			
Swell Index	ASTM D 5890	1/100,000 lb	24 ml/2 g min
Moisture Content	ASTM D 4643	1/100,000 lb	12% max
Fluid Loss	ASTM D 5891	1/100,000 lb	18 ml max
Finished GCL Property			
Bentonite, Mass/Unit Area(2)	ASTM D 5993	1/40,000 ft²	0.75 lb/ft² MARV
Tensile Strength(3)	ASTM D 6768	1/40,000 ft²	40 lb/in MARV
Peel Strength	ASTM D 6496 ASTM D 4632(4)	1/40,000 ft²	3.5 lb/in MARV 21 lb MARV
Hydraulic Conductivity(5)	ASTM D 5887	Periodically	5 x 10^{-10} cm/sec max
Index Flux(5)	ASTM D 5887	Periodically	1 x 10^{-9} m³/m²/sec max
Internal Shear Strength(6)	ASTM D 6243	Periodically	500 psf Typical
TYPICAL ROLL DIMENSIONS			
Width x Length(7)	Typical	Every Roll	15.5 ft x 150 ft
Area per Roll	Typical	Every Roll	2,325 ft²
Packaged Weight	Typical	Every Roll	2,600 lb

NOTES:

- (1)Minimum Average Roll Value.
- (2)At 0% moisture content.
- (3)Tested in machine direction.
- (4)Modified ASTM D 4632 to use a 4 in wide grip. The maximum peak of five specimens averaged in machine direction.
- (5)Deaired, deionized water @ 5 psi maximum effective confining stress and 2 psi head pressure. Hydraulic Conductivity and Index Flux are performed only on a periodic basis because the polypropylene coating is essentialy impermeable.
- (6)Typical peak value for specimen hydrated for 24 hours and sheared under a 200 psf normal stress.
- (7)Roll widths and lengths have a tolerance of ±1%.

GSE is a leading manufacturer and marketer of geosynthetic lining products and services. We've built a reputation of reliability through our dedication to providing consistency of product, price and protection to our global customers.

Our commitment to innovation, our focus on quality and our industry expertise allow us the flexibility to collaborate with our clients to develop a custom, purpose-fit solution.

GSE ENVIRONMENTAL™

[DURABILITY RUNS DEEP]

For more information on this product and others, please visit us at GSEworld.com, call 800.435.2008 or contact your local sales office.

This Information is provided for reference purposes only and is not intended as a warranty or guarantee. GSE assumes no liability in connection with the use of this Information. Specifications subject to change without notice. GSE and other trademarks in this document are registered trademarks of GSE Lining Technology, LLC in the United States and certain foreign countries. REV 13JUN2012


09/14/2016


09/14/2016

Appendix C

Laboratory Report

Pace Analytical e-Report

***Issuance of this report is prior to full data package.**

Report prepared for:
BARTON AND LOGUIDICE
10 AIRLINE DRIVE
ALBANY, NY 12205
CONTACT: ANDY BARBER

Project ID: ALCO
Sampling Date(s): August 11, 2016
Lab Report ID: 16080332
Client Service Contact: Nick Nicholas (518) 346-4592

Analysis Included:
VOCs E8260C - Sub Pace LI
TPH-DRO E8015 - Sub Pace LI

Test results meet all National Environmental Laboratory Accreditation Conference (NELAC) requirements unless noted in the case narrative. The results contained within the document relate only to the samples included in this report. Pace Analytical is responsible only for the certified testing and is not directly responsible for the integrity of the sample before laboratory receipt. This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.

Roy Smith
Technical Director

Certifications: New York (EPA: NY00906, ELAP: 11078), New Jersey (NY026), Connecticut (PH-0337), Massachusetts (M-NY906), Virginia (460241)

Pace Analytical Services, Inc. | 2190 Technology Drive | Schenectady, NY 12308
Phone: 518.346.4592 | internet: www.pacelabs.com

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Table of Contents

QUALIFIERS

Definitions

B - Denotes analyte observed in associated method blank or extraction blank. Analyte concentration should be considered as estimated.

D - Surrogate was diluted. The analysis of the sample required a dilution such that the surrogate concentration was diluted outside the laboratory acceptance criteria.

E - Denotes analyte concentration exceeded calibration range of instrument. Sample could not be reanalyzed at secondary dilution due to insufficient sample amount, quick turn-around request, sample matrix interference or hold time excursion. Concentration result should be considered as estimated.

J - Denotes an estimated concentration. The concentration result is greater than or equal to the Method Detection Limit (MDL) but less than the Practical Quantitation Limit (PQL).

MDL – Adjusted Method Detection Limit.

P - Indicates relative percent difference (RPD) between primary and secondary gas chromatograph (GC) column analysis exceeds 40 % or indicates percent difference (PD) between primary and secondary gas chromatograph (GC) column analysis exceeds 25 %.

PQL – Practical Quantitation Limit. PQLs are adjusted for sample weight/volume and dilution factors.

RL - Reporting Limit Denotes lowest analyte concentration reportable for the sample based on regulatory or project specific limits.

U - Denotes analyte not detected at concentration greater than the Practical Quantitation Limit (PQL) or the Reporting Limit (RL) or the Method Detection Limit (MDL) as applicable.

Z - Chromatographic interference due to polychlorinated biphenyl (PCB) co-elution.

* - Value not within control limits.

SAMPLE CHAIN OF CUSTODY

Pace Analytical®
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

<16080332P1>

160803321

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1082317

Section A Required Client Information:

Company: B&L
Address: 10 AIRLINE DRIVE SUITE 200
ALBANY NY 12205
Email To: rmccormick@bartonandloguidice.com
Phone: (518)218-1801 Fax: (518)219-1805
Requested Due Date/TAT: STANDARD

Section B Required Project Information:

Report To: ANDY BARBER
Copy To: NATHAN SHAFFER
ROSEMARY MCCORMICK
Purchase Order No.:
Project Name: ALCO
Project Number: 1368.001.001

Section C Invoice Information:

Attention: ACCOUNTS PAYABLE
Company Name: B&L
Address: 443 ELECTRONICS PKWY LIVERPOOL
Pace Quote Reference:
Pace Project Manager: NICHOLAS NICHOLAS
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☒ OTHER NYSDEC

Site Location STATE: NY

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Matrix Codes MATRIX / CODE

Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N: VOCs by 8260	DRO	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	BPB-01	SL	G			8/11/16	9:50		2	X								Y	Y		AT21303
2	BPR-01	SL	G				10:05		6	X								Y	Y		AT21304
3	BPR-02	SL	G				10:10		2	X								Y	Y		AT21305
4	BPB-03	SL	G				10:30		2	X								Y	Y		AT21306
5	BPB-03	SL	G				10:50		2	X								Y	Y		AT21307
6	BPB-04	SL	G				11:15		2	X								Y	Y		AT21308
7	BPB-05	SL	G				11:50		2	X								Y	Y		AT21309
8	BPB-06	SL	G				12:40		2	X								Y	Y		AT21310
9	BPR-07	SL	G				13:25		2	X								Y	Y		AT21311
10	BPB-08	SL	G				14:30		2	X								Y	Y		AT21312
11	BPB-09	SL	G			↓	15:20		2	X								Y	Y		AT21313
12	BPP-10	SL	G			8/11/16	15:50		2	X								Y	Y		AT21314

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
Cat. B deliverables.	[signature]/BL	8/12/16	10:40	[signature]	8/12/16	10:40	2.0	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: ROSEMARY MCCORMICK
SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 8/11/16

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

Pace Analytical®
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

<16080332P2>

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1882324

Section A
Required Client Information:

Company: B+L
Address: 11 AIRLINE DRIVE SUITE 200
ALBANY NY 12205
Email To: rmccormick@bartonandloguidice.com
Phone: (518)218-7801 Fax: (518)218-7805
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Project Number: 13168.001.001

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Company Name: B+L
Address: 443 ELECTRONICS PKWY LIVERPOOL
Pace Quote Reference:
Pace Project Manager: NICHOLAS NICHOLAS
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☒ OTHER NYSDEC

Site Location STATE: NY

Section D
Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Matrix Codes
MATRIX / CODE

Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N: VOCs by 8260	DRO	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	DUP-X	SL	G			8/11/16	—	☐	2	X								X	X		AT21315
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	[signature] / B+L	8/12/16	10:40	[signature]	8/12/16	10:40	2.0	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: ROSEMARY McCORMICK
SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 8/11/16

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

<16080332P3>

160803323

Sample Condition Upon Receipt

CLIENT NAME: B+L

PROJECT : ALCO

COURIER: FedEx ☐ UPS ☐ Client ☒ Pace ☐ Other ☐

TRACKING # N/A

CUSTODY SEAL PRESENT: Yes ☐ No ☒ INTACT: Yes ☐ No ☐ N/A ☒

PACKING MATERIAL: Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other ☐ ICE USED: Wet ☒ Blue ☐ None ☐

THERMOMETER USED: #164 ☒ IR Gun 03 ☐ #160239773 ☐ #160239773-PRB ☐ COOLER TEMPERATURE (°C): 2.0

BIOLOGICAL TISSUE IS FROZEN: Yes ☐ No ☐ N/A ☒

COMMENTS:

Temperature is Acceptable? ☒Yes ☐No

Chain of Custody Present:	☒Yes	☐No		1.
Chain of Custody Filled Out:	☒Yes	☐No		2.
Chain of Custody Relinquished:	☒Yes	☐No		3.
Sampler Name / Signature on COC:	☒Yes	☐No		4.
Samples Arrived within Hold Time:	☒Yes	☐No		5.
Short Hold Time Analysis (<72hr):	☐Yes	☒No		6.
Rush Turn Around Time Requested:	☐Yes	☒No		7.
Sufficient Volume:	☒Yes	☐No		8.
Correct Containers Used:	☒Yes	☐No		9.
- Pace Containers Used:	☒Yes	☐No		
Containers Intact:	☒Yes	☐No		10.
Filtered volume received for Dissolved tests	☐Yes	☐No	☒N/A	11.
Sample Labels match COC: - Includes date/time/ID/Analysis	☐Yes	☒No		12. Sample ID's abbreviated on COC. No MS/MSD indicated on COC, we recieved MS/MSD for sample ID BFB-01.
All containers needing preservation have been checked:	☐Yes	☐No	☒N/A	13.
All containers needing preservation are in compliance with EPA recommendation: - Exceptions that are not checked: TOC, VOA, Subcontract Analyses	☐Yes	☐No	☒N/A	Initial when completed: N/A Lot # of added preservative: N/A
Headspace in VOA Vials (>6mm):	☐Yes	☐No	☒N/A	14.
Trip Blank Present:	☐Yes	☐No	☒N/A	15.
Trip Blank Custody Seals Present:	☐Yes	☐No	☒N/A	
Pace Trip Blank Lot #: N/A				

Sample Receipt form filled in: Complete

Line-Out (Includes Copying Shipping Documents and verifying sample pH): DB 8/15/16

Log In (Includes notifying PM of any discrepacies and documenting in LIMS): DB 8/16/16

Labeling (Includes Scanning Bottles and entering LAB IDs into pH logbook): DB 8/15/16

Document Control# F-NY-C-034-rev.01 (24May2016)

SAMPLE RECEIPT

SAMPLE RECEIPT REPORT
16080332

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

CLIENT: BARTON AND LOGUIDICE
PROJECT: ALCO
LRF: 16080332
REPORT: DATA PACKAGE
EDD: YES
LRF TAT: 7 DAYS

RECEIVED DATE: 8/12/2016 10:40
SHIPPED VIA: DROP OFF
SHIPPING ID:
NUMBER OF COOLERS: 1
CUSTODY SEAL INTACT: NA
COOLER STATUS: CHILLED
TEMPERATURE(S): 2.0 °C

SAMPLE SEALS INTACT: NA
SAMPLES PRESERVED PER METHOD GUIDANCE: YES
SAMPLES REC'D IN HOLDTIME: YES
DISPOSAL: BY LAB (45 DAYS)
COC DISCREPANCY: YES

COMMENTS:
SAMPLE IDS ABBREVIATED ON COC. MS/MSD VOLUME RECEIVED FOR SAMPLE "BPB-01;" NOT INDICATED ON COC.

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CLIENT ID (LAB ID)	TAT-DUE Date	DATE-TIME SAMPLED	MATRIX	METHOD	TEST DESCRIPTION	QC REQUEST
BPB-01 (AT21303)	7 DAYS 08-23-16	8/11/2016 09:50	Soil	TPH-DRO E8015	TPH-DRO E8015 - Sub Pace LI	
	7 DAYS 08-23-16	8/11/2016 09:50	Soil	VOCs E8260C	VOCs E8260C - Sub Pace LI	
BPB-01 (AT21304)	7 DAYS 08-23-16	8/11/2016 10:05	Soil	TPH-DRO E8015	TPH-DRO E8015 - Sub Pace LI	
	7 DAYS 08-23-16	8/11/2016 10:05	Soil	VOCs E8260C	VOCs E8260C - Sub Pace LI	MS, MSD
BPB-02 (AT21305)	7 DAYS 08-23-16	8/11/2016 10:10	Soil	TPH-DRO E8015	TPH-DRO E8015 - Sub Pace LI	
	7 DAYS 08-23-16	8/11/2016 10:10	Soil	VOCs E8260C	VOCs E8260C - Sub Pace LI	
BPB-03 (AT21306)	7 DAYS 08-23-16	8/11/2016 10:30	Soil	TPH-DRO E8015	TPH-DRO E8015 - Sub Pace LI	
	7 DAYS 08-23-16	8/11/2016 10:30	Soil	VOCs E8260C	VOCs E8260C - Sub Pace LI	
BPB-03 (AT21307)	7 DAYS 08-23-16	8/11/2016 10:50	Soil	TPH-DRO E8015	TPH-DRO E8015 - Sub Pace LI	
	7 DAYS 08-23-16	8/11/2016 10:50	Soil	VOCs E8260C	VOCs E8260C - Sub Pace LI	
BPB-04 (AT21308)	7 DAYS 08-23-16	8/11/2016 11:15	Soil	TPH-DRO E8015	TPH-DRO E8015 - Sub Pace LI	
	7 DAYS 08-23-16	8/11/2016 11:15	Soil	VOCs E8260C	VOCs E8260C - Sub Pace LI	
BPB-05 (AT21309)	7 DAYS 08-23-16	8/11/2016 11:50	Soil	TPH-DRO E8015	TPH-DRO E8015 - Sub Pace LI	
	7 DAYS 08-23-16	8/11/2016 11:50	Soil	VOCs E8260C	VOCs E8260C - Sub Pace LI	
BPB-06 (AT21310)	7 DAYS 08-23-16	8/11/2016 12:40	Soil	TPH-DRO E8015	TPH-DRO E8015 - Sub Pace LI	
	7 DAYS 08-23-16	8/11/2016 12:40	Soil	VOCs E8260C	VOCs E8260C - Sub Pace LI	
BPB-07 (AT21311)	7 DAYS 08-23-16	8/11/2016 13:25	Soil	TPH-DRO E8015	TPH-DRO E8015 - Sub Pace LI	
	7 DAYS 08-23-16	8/11/2016 13:25	Soil	VOCs E8260C	VOCs E8260C - Sub Pace LI	
BPB-08 (AT21312)	7 DAYS 08-23-16	8/11/2016 14:30	Soil	TPH-DRO E8015	TPH-DRO E8015 - Sub Pace LI	
	7 DAYS 08-23-16	8/11/2016 14:30	Soil	VOCs E8260C	VOCs E8260C - Sub Pace LI	
BPB-09 (AT21313)	7 DAYS 08-23-16	8/11/2016 15:20	Soil	TPH-DRO E8015	TPH-DRO E8015 - Sub Pace LI	
	7 DAYS 08-23-16	8/11/2016 15:20	Soil	VOCs E8260C	VOCs E8260C - Sub Pace LI	
BPB-10 (AT21314)	7 DAYS 08-23-16	8/11/2016 15:50	Soil	TPH-DRO E8015	TPH-DRO E8015 - Sub Pace LI	
	7 DAYS 08-23-16	8/11/2016 15:50	Soil	VOCs E8260C	VOCs E8260C - Sub Pace LI	
DUP-X (AT21315)	7 DAYS 08-23-16	8/11/2016	Soil	TPH-DRO E8015	TPH-DRO E8015 - Sub Pace LI	
	7 DAYS 08-23-16	8/11/2016	Soil	VOCs E8260C	VOCs E8260C - Sub Pace LI	

[1] The pH preservation check of Oil and Grease (Method 1664) and Total Organic Carbon (Method 5310B) are performed as soon as possible after sample receipt and may not be included in this report.
[2] The pH preservation check of aqueous volatile samples is not performed until after the analysis of the sample to maintain zero headspace and is not included in this report.
[3] Samples received for pH analysis are not marked as a hold time exceedance here. SW-846 methods suggests analysis to be done within 15 minutes of sample collection. Because of transportation time it is not possible for the laboratory to perform the test in that time. Sample Certificates of Analysis reports are noted as such.
[4] Samples arriving at the laboratory after 4:00 pm are assigned a due date as if they arrived the following business day unless other arrangements have been made. The due date represents the date the lab report is expected to be completed on or before 5:00 pm (EST) for the date specified.
[5] All samples which require thermal preservation shall be considered acceptable when received greater than 6 degrees Celsius if they are collected on the same day as received and there is evidence that the chilling process has begun, such as arrival on ice.Control limits are between 0-6 Degrees Celsius. Control limits do not apply for metals analysis.
[6] Samples requesting analysis for Orthophosphate (SM 4500-P E-99,-11) require the samples to be filtered in the field within 15 minutes of the sampling event. Samples that are received unfiltered will be noted as not method compliant on the Certificates of Analysis.

Reporting Parameters and Lists

This report may not be reproduced except in full, without the written approval of Pace Analytical Services, Inc.

Subcontract Analysis

PACE ANALYTICAL
575 Broad Hollow Road
Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
Website: www.pacelabs.com

Case Narrative

WO#: **1608G07**

Date:

CLIENT: Pace Analytical Services Inc.
Project: 16080332 - 1368.001

5035A sampling method for VOCs not followed. Sample received in 4 oz jar.

4

Pace Analytical
575 Broad Hollow Road , Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

LABORATORY RESULTS

Results are only for the samples and analytes requested.

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the tests requested.

Pace Analytical Services Inc.
2190 Technology Drive
Schenectady, NY 12308
Attn To : Nicholas Nicholas
Collected : 8/11/2016 9:50:00 AM
Received : 8/17/2016 9:45:00 AM AT21303
Collected By CLIENT

Lab No. : 1608G07-001
Client Sample ID: BPB-01

Sample Information:
Type : Soil
Origin:

Analytical Method: SW8015D : Prep Method: SW3545A Prep Date: 8/18/2016 12:57:24 PM Analyst: JB

Parameter(s)	Results	Qualifier	D.F.	Units			Analyzed:	Container:
Diesel Range Organics C10-C28	280		1	mg/Kg-dry			08/20/2016 7:34 PM	Container-01 of 01
Surr: 1,4-Dichlorobenzene-d4	48.4		1	%Rec	Limit	16-113	08/20/2016 7:34 PM	Container-01 of 01

NOTES:
C10-C28 quantified with Diesel Fuel #2.

4

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
c = Calibration acceptability criteria exceeded for this analyte.Value estimated
H = Received/analyzed outside of analytical holding time
J = Estimated value - below calibration range
M-, M+ = Matrix Spike recovery below / above control limit
N = Indicates presumptive evidence of compound
P = Duplicate RPD outside of control limit
r = Reporting limit below calibration range. Value estimated.
S = Recovery outside of control limits for this analyte
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method
Date Reported :

Caitlin Panzarella
Project Manager : Caitlin Panzarella

Test results meet the requirements of NELAC unless otherwise noted.

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Pace Analytical Services Inc.
2190 Technology Drive
Schenectady, NY 12308

Attn To : Nicholas Nicholas

Collected : 8/11/2016 9:50:00 AM
Received : 8/17/2016 9:45:00 AM AT21303
Collected By CLIENT

Lab No. : 1608G07-001
Client Sample ID: BPB-01

Sample Information:
Type : Soil

Origin:

Analytical Method: SW8260C : Prep Method: 5035A-L Analyst: KG

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
1,1,1,2-Tetrachloroethane	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
1,1,1-Trichloroethane	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
1,1,2,2-Tetrachloroethane	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
1,1,2-Trichloroethane	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
1,1-Dichloroethane	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
1,1-Dichloroethene	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
1,1-Dichloropropene	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
1,2,3-Trichlorobenzene	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
1,2,3-Trichloropropane	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
1,2,4-Trichlorobenzene	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
1,2,4-Trimethylbenzene	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
1,2-Dibromo-3-chloropropane	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
1,2-Dibromoethane	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
1,2-Dichlorobenzene	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
1,2-Dichloroethane	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
1,2-Dichloropropane	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
1,3,5-Trimethylbenzene/P-ethyltoluene	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
1,3-Dichlorobenzene	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
1,3-Dichloropropane	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
1,4-Dichlorobenzene	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
2,2-Dichloropropane	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
2-Butanone	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
2-Chloroethylvinyl ether	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
2-Chlorotoluene/4-Chlorotoluene	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
2-Hexanone	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
4-Isopropyltoluene	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
4-Methyl-2-pentanone	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
Acetone	< 750	Dc	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
Benzene	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.
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c = Calibration acceptability criteria exceeded for this analyte.Value estimated
H = Received/analyzed outside of analytical holding time
J = Estimated value - below calibration range
M-, M+ = Matrix Spike recovery below / above control limit
N = Indicates presumptive evidence of compound
P = Duplicate RPD outside of control limit
r = Reporting limit below calibration range. Value estimated.
S = Recovery outside of control limits for this analyte
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

Date Reported :

Caitlin Panzarella

Project Manager : Caitlin Panzarella

Test results meet the requirements of NELAC unless otherwise noted.

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Pace Analytical
575 Broad Hollow Road , Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

LABORATORY RESULTS

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Pace Analytical Services Inc.
2190 Technology Drive
Schenectady, NY 12308
Attn To : Nicholas Nicholas
Collected : 8/11/2016 9:50:00 AM
Received : 8/17/2016 9:45:00 AM AT21303
Collected By CLIENT

Lab No. : 1608G07-001
Client Sample ID: BPB-01

Sample Information:
Type : Soil
Origin:

Analytical Method: SW8260C : Prep Method: 5035A-L Analyst: KG

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Bromobenzene	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
Bromochloromethane	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
Bromodichloromethane	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
Bromoform	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
Bromomethane	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
Carbon disulfide	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
Carbon tetrachloride	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
Chlorobenzene	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
Chloroethane	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
Chloroform	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
Chloromethane	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
cis-1,2-Dichloroethene	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
cis-1,3-Dichloropropene	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
Dibromochloromethane	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
Dibromomethane	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
Dichlorodifluoromethane	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
Ethylbenzene	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
Hexachlorobutadiene	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
Isopropylbenzene	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
m,p-Xylene	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
Methyl tert-butyl ether	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
Methylene chloride	< 750	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
Naphthalene	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
n-Butylbenzene	150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
n-Propylbenzene	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
o-Xylene	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
sec-Butylbenzene	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
Styrene	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
tert-Butylbenzene	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01
Tetrachloroethene	< 150	D	60	µg/Kg-dry	08/19/2016 10:03 AM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.
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c = Calibration acceptability criteria exceeded for this analyte.Value estimated
H = Received/analyzed outside of analytical holding time
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r = Reporting limit below calibration range. Value estimated.
S = Recovery outside of control limits for this analyte
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

Date Reported :

Caitlin Panzarella

Project Manager : Caitlin Panzarella

Test results meet the requirements of NELAC unless otherwise noted.

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NYSDOH ID#10478 www.pacelabs.com

LABORATORY RESULTS

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Pace Analytical Services Inc.
2190 Technology Drive
Schenectady, NY 12308

Attn To : Nicholas Nicholas

Collected : 8/11/2016 9:50:00 AM
Received : 8/17/2016 9:45:00 AM AT21303
Collected By CLIENT

Lab No. : 1608G07-001
Client Sample ID: BPB-01

Sample Information:
Type : Soil

Origin:

Analytical Method: SW8260C : Prep Method: 5035A-L Analyst: KG

Parameter(s)	Results	Qualifier	D.F.	Units			Analyzed:	Container:
Toluene	220	D	60	µg/Kg-dry			08/19/2016 10:03 AM	Container-01 of 01
trans-1,2-Dichloroethene	< 150	D	60	µg/Kg-dry			08/19/2016 10:03 AM	Container-01 of 01
trans-1,3-Dichloropropene	< 150	D	60	µg/Kg-dry			08/19/2016 10:03 AM	Container-01 of 01
Trichloroethene	< 150	D	60	µg/Kg-dry			08/19/2016 10:03 AM	Container-01 of 01
Trichlorofluoromethane	< 150	D	60	µg/Kg-dry			08/19/2016 10:03 AM	Container-01 of 01
Vinyl acetate	< 150	D	60	µg/Kg-dry			08/19/2016 10:03 AM	Container-01 of 01
Vinyl chloride	< 150	D	60	µg/Kg-dry			08/19/2016 10:03 AM	Container-01 of 01
Xylene (total)	170	D	60	µg/Kg-dry			08/19/2016 10:03 AM	Container-01 of 01
Surr: 1,2-Dichloroethane-d4	87.8	D	60	%Rec	Limit	33-145	08/19/2016 10:03 AM	Container-01 of 01
Surr: 4-Bromofluorobenzene	92.6	D	60	%Rec	Limit	60-148	08/19/2016 10:03 AM	Container-01 of 01
Surr: Toluene-d8	78.1	D	60	%Rec	Limit	60-132	08/19/2016 10:03 AM	Container-01 of 01

NOTES:
Results may be biased low due to sample not being collected according to 5035A low level specifications.

Analytical Method: D2216 : Analyst: MM

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Percent Moisture	20.0		1	wt%	08/19/2016 3:38 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
c = Calibration acceptability criteria exceeded for this analyte.Value estimated
H = Received/analyzed outside of analytical holding time
J = Estimated value - below calibration range
M-, M+ = Matrix Spike recovery below / above control limit
N = Indicates presumptive evidence of compound
P = Duplicate RPD outside of control limit
r = Reporting limit below calibration range. Value estimated.
S = Recovery outside of control limits for this analyte
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method
Date Reported :

Caitlin Panzarella
Project Manager : Caitlin Panzarella

Test results meet the requirements of NELAC unless otherwise noted.

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Pace Analytical™
575 Broad Hollow Road , Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

LABORATORY RESULTS

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Pace Analytical Services Inc.
2190 Technology Drive
Schenectady, NY 12308
Attn To : Nicholas Nicholas
Collected : 8/11/2016 10:05:00 AM
Received : 8/17/2016 9:45:00 AM AT21304
Collected By CLIENT

Lab No. : 1608G07-002
Client Sample ID: BPB-01

Sample Information:
Type : Soil
Origin:

Analytical Method: SW8015D : Prep Method: SW3545A Prep Date: 8/18/2016 12:57:24 PM Analyst: JB

Parameter(s)	Results	Qualifier	D.F.	Units			Analyzed:	Container:
Diesel Range Organics C10-C28	< 9.1		1	mg/Kg-dry			08/20/2016 8:13 PM	Container-01 of 03
Surr: 1,4-Dichlorobenzene-d4	49.2		1	%Rec	Limit	16-113	08/20/2016 8:13 PM	Container-01 of 03

NOTES:
C10-C28 quantified with Diesel Fuel #2.

4

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
c = Calibration acceptability criteria exceeded for this analyte.Value estimated
H = Received/analyzed outside of analytical holding time
J = Estimated value - below calibration range
M-, M+ = Matrix Spike recovery below / above control limit
N = Indicates presumptive evidence of compound
P = Duplicate RPD outside of control limit
r = Reporting limit below calibration range. Value estimated.
S = Recovery outside of control limits for this analyte
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2190 Technology Drive
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Attn To : Nicholas Nicholas
Collected : 8/11/2016 10:05:00 AM
Received : 8/17/2016 9:45:00 AM AT21304
Collected By CLIENT

Lab No. : 1608G07-002
Client Sample ID: BPB-01

Sample Information:
Type : Soil

Origin:

Analytical Method: SW8260C : Prep Method: 5035A-L Analyst: KG

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
1,1,1,2-Tetrachloroethane	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
1,1,1-Trichloroethane	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
1,1,2,2-Tetrachloroethane	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
1,1,2-Trichloroethane	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
1,1-Dichloroethane	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
1,1-Dichloroethene	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
1,1-Dichloropropene	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
1,2,3-Trichlorobenzene	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
1,2,3-Trichloropropane	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
1,2,4-Trichlorobenzene	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
1,2,4-Trimethylbenzene	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
1,2-Dibromo-3-chloropropane	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
1,2-Dibromoethane	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
1,2-Dichlorobenzene	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
1,2-Dichloroethane	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
1,2-Dichloropropane	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
1,3,5-Trimethylbenzene/P-ethyltoluene	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
1,3-Dichlorobenzene	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
1,3-Dichloropropane	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
1,4-Dichlorobenzene	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
2,2-Dichloropropane	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
2-Butanone	44	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
2-Chloroethylvinyl ether	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
2-Chlorotoluene/4-Chlorotoluene	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
2-Hexanone	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
4-Isopropyltoluene	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
4-Methyl-2-pentanone	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
Acetone	160	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
Benzene	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
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S = Recovery outside of control limits for this analyte
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Date Reported :

Caitlin Panzarella

Project Manager : Caitlin Panzarella

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2190 Technology Drive
Schenectady, NY 12308
Attn To : Nicholas Nicholas
Collected : 8/11/2016 10:05:00 AM
Received : 8/17/2016 9:45:00 AM AT21304
Collected By CLIENT

Lab No. : 1608G07-002
Client Sample ID: BPB-01

Sample Information:
Type : Soil
Origin:

Analytical Method: SW8260C : Prep Method: 5035A-L Analyst: KG

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Bromobenzene	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
Bromochloromethane	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
Bromodichloromethane	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
Bromoform	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
Bromomethane	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
Carbon disulfide	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
Carbon tetrachloride	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
Chlorobenzene	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
Chloroethane	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
Chloroform	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
Chloromethane	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
cis-1,2-Dichloroethene	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
cis-1,3-Dichloropropene	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
Dibromochloromethane	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
Dibromomethane	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
Dichlorodifluoromethane	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
Ethylbenzene	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
Hexachlorobutadiene	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
Isopropylbenzene	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
m,p-Xylene	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
Methyl tert-butyl ether	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
Methylene chloride	< 68	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
Naphthalene	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
n-Butylbenzene	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
n-Propylbenzene	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
o-Xylene	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
sec-Butylbenzene	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
Styrene	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
tert-Butylbenzene	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03
Tetrachloroethene	< 14	D	5	µg/Kg-dry	08/18/2016 8:59 PM	Container-01 of 03

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
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c = Calibration acceptability criteria exceeded for this analyte.Value estimated
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+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

Date Reported :

Caitlin Panzarella
Project Manager : Caitlin Panzarella

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Pace Analytical Services Inc.
2190 Technology Drive
Schenectady, NY 12308

Attn To : Nicholas Nicholas

Collected : 8/11/2016 10:05:00 AM
Received : 8/17/2016 9:45:00 AM AT21304
Collected By CLIENT

Lab No. : 1608G07-002
Client Sample ID: BPB-01

Sample Information:
Type : Soil

Origin:

Analytical Method: SW8260C : Prep Method: 5035A-L Analyst: KG

Parameter(s)	Results	Qualifier	D.F.	Units			Analyzed:	Container:
Toluene	< 14	D	5	µg/Kg-dry			08/18/2016 8:59 PM	Container-01 of 03
trans-1,2-Dichloroethene	< 14	D	5	µg/Kg-dry			08/18/2016 8:59 PM	Container-01 of 03
trans-1,3-Dichloropropene	< 14	D	5	µg/Kg-dry			08/18/2016 8:59 PM	Container-01 of 03
Trichloroethene	< 14	D	5	µg/Kg-dry			08/18/2016 8:59 PM	Container-01 of 03
Trichlorofluoromethane	< 14	D	5	µg/Kg-dry			08/18/2016 8:59 PM	Container-01 of 03
Vinyl acetate	< 14	D	5	µg/Kg-dry			08/18/2016 8:59 PM	Container-01 of 03
Vinyl chloride	< 14	D	5	µg/Kg-dry			08/18/2016 8:59 PM	Container-01 of 03
Xylene (total)	< 14	D	5	µg/Kg-dry			08/18/2016 8:59 PM	Container-01 of 03
Surr: 1,2-Dichloroethane-d4	106	D	5	%Rec	Limit	33-145	08/18/2016 8:59 PM	Container-01 of 03
Surr: 4-Bromofluorobenzene	99.2	D	5	%Rec	Limit	60-148	08/18/2016 8:59 PM	Container-01 of 03
Surr: Toluene-d8	101	D	5	%Rec	Limit	60-132	08/18/2016 8:59 PM	Container-01 of 03

NOTES:
Results may be biased low due to sample not being collected according to 5035A low level specifications.

Analytical Method: D2216 : Analyst: MM

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Percent Moisture	26.6		1	wt%	08/19/2016 3:42 PM	Container-01 of 03

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
c = Calibration acceptability criteria exceeded for this analyte.Value estimated
H = Received/analyzed outside of analytical holding time
J = Estimated value - below calibration range
M-, M+ = Matrix Spike recovery below / above control limit
N = Indicates presumptive evidence of compound
P = Duplicate RPD outside of control limit
r = Reporting limit below calibration range. Value estimated.
S = Recovery outside of control limits for this analyte
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method
Date Reported :

Caitlin Panzarella
Project Manager : Caitlin Panzarella

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Pace Analytical Services Inc.
2190 Technology Drive
Schenectady, NY 12308
Attn To : Nicholas Nicholas
Collected : 8/11/2016 10:10:00 AM
Received : 8/17/2016 9:45:00 AM AT21305
Collected By CLIENT

Lab No. : 1608G07-003
Client Sample ID: BPB-02

Sample Information:
Type : Soil
Origin:

Analytical Method: SW8015D : Prep Method: SW3545A Prep Date: 8/18/2016 12:57:24 PM Analyst: JB

Parameter(s)	Results	Qualifier	D.F.	Units			Analyzed:	Container:
Diesel Range Organics C10-C28	420		1	mg/Kg-dry			08/20/2016 10:11 PM	Container-01 of 01
Surr: 1,4-Dichlorobenzene-d4	49.9		1	%Rec	Limit	16-113	08/20/2016 10:11 PM	Container-01 of 01

NOTES:
C10-C28 quantified with Diesel Fuel #2.

4

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
c = Calibration acceptability criteria exceeded for this analyte.Value estimated
H = Received/analyzed outside of analytical holding time
J = Estimated value - below calibration range
M-, M+ = Matrix Spike recovery below / above control limit
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Pace Analytical Services Inc.
2190 Technology Drive
Schenectady, NY 12308
Attn To : Nicholas Nicholas
Collected : 8/11/2016 10:10:00 AM
Received : 8/17/2016 9:45:00 AM AT21305
Collected By CLIENT

Lab No. : 1608G07-003
Client Sample ID: BPB-02

Sample Information:
Type : Soil

Origin:

Analytical Method: SW8260C : Prep Method: 5035A-L Analyst: KG

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
1,1,1,2-Tetrachloroethane	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
1,1,1-Trichloroethane	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
1,1,2,2-Tetrachloroethane	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
1,1,2-Trichloroethane	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
1,1-Dichloroethane	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
1,1-Dichloroethene	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
1,1-Dichloropropene	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
1,2,3-Trichlorobenzene	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
1,2,3-Trichloropropane	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
1,2,4-Trichlorobenzene	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
1,2,4-Trimethylbenzene	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
1,2-Dibromo-3-chloropropane	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
1,2-Dibromoethane	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
1,2-Dichlorobenzene	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
1,2-Dichloroethane	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
1,2-Dichloropropane	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
1,3,5-Trimethylbenzene/P-ethyltoluene	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
1,3-Dichlorobenzene	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
1,3-Dichloropropane	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
1,4-Dichlorobenzene	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
2,2-Dichloropropane	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
2-Butanone	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
2-Chloroethylvinyl ether	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
2-Chlorotoluene/4-Chlorotoluene	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
2-Hexanone	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
4-Isopropyltoluene	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
4-Methyl-2-pentanone	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
Acetone	< 65	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
Benzene	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
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c = Calibration acceptability criteria exceeded for this analyte.Value estimated
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Date Reported :

Caitlin Panzarella
Project Manager : Caitlin Panzarella

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Pace Analytical Services Inc.
2190 Technology Drive
Schenectady, NY 12308

Attn To : Nicholas Nicholas

Collected : 8/11/2016 10:10:00 AM
Received : 8/17/2016 9:45:00 AM AT21305
Collected By CLIENT

Lab No. : 1608G07-003
Client Sample ID: BPB-02

Sample Information:
Type : Soil

Origin:

Analytical Method: SW8260C : Prep Method: 5035A-L Analyst: KG

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Bromobenzene	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
Bromochloromethane	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
Bromodichloromethane	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
Bromoform	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
Bromomethane	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
Carbon disulfide	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
Carbon tetrachloride	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
Chlorobenzene	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
Chloroethane	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
Chloroform	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
Chloromethane	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
cis-1,2-Dichloroethene	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
cis-1,3-Dichloropropene	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
Dibromochloromethane	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
Dibromomethane	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
Dichlorodifluoromethane	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
Ethylbenzene	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
Hexachlorobutadiene	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
Isopropylbenzene	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
m,p-Xylene	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
Methyl tert-butyl ether	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
Methylene chloride	< 65	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
Naphthalene	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
n-Butylbenzene	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
n-Propylbenzene	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
o-Xylene	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
sec-Butylbenzene	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
Styrene	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
tert-Butylbenzene	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01
Tetrachloroethene	< 13	D	5	µg/Kg-dry	08/18/2016 10:27 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
c = Calibration acceptability criteria exceeded for this analyte.Value estimated
H = Received/analyzed outside of analytical holding time
J = Estimated value - below calibration range
M-, M+ = Matrix Spike recovery below / above control limit
N = Indicates presumptive evidence of compound
P = Duplicate RPD outside of control limit
r = Reporting limit below calibration range. Value estimated.
S = Recovery outside of control limits for this analyte
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

Date Reported :

Caitlin Panzarella

Project Manager : Caitlin Panzarella

Test results meet the requirements of NELAC unless otherwise noted.

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Pace Analytical
575 Broad Hollow Road , Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

LABORATORY RESULTS

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Pace Analytical Services Inc.
2190 Technology Drive
Schenectady, NY 12308
Attn To : Nicholas Nicholas

Collected : 8/11/2016 10:10:00 AM
Received : 8/17/2016 9:45:00 AM AT21305
Collected By CLIENT

Lab No. : 1608G07-003
Client Sample ID: BPB-02

Sample Information:
Type : Soil

Origin:

Analytical Method: SW8260C : Prep Method: 5035A-L Analyst: KG

Parameter(s)	Results	Qualifier	D.F.	Units			Analyzed:	Container:
Toluene	< 13	D	5	µg/Kg-dry			08/18/2016 10:27 PM	Container-01 of 01
trans-1,2-Dichloroethene	< 13	D	5	µg/Kg-dry			08/18/2016 10:27 PM	Container-01 of 01
trans-1,3-Dichloropropene	< 13	D	5	µg/Kg-dry			08/18/2016 10:27 PM	Container-01 of 01
Trichloroethene	< 13	D	5	µg/Kg-dry			08/18/2016 10:27 PM	Container-01 of 01
Trichlorofluoromethane	< 13	D	5	µg/Kg-dry			08/18/2016 10:27 PM	Container-01 of 01
Vinyl acetate	< 13	D	5	µg/Kg-dry			08/18/2016 10:27 PM	Container-01 of 01
Vinyl chloride	< 13	D	5	µg/Kg-dry			08/18/2016 10:27 PM	Container-01 of 01
Xylene (total)	< 13	D	5	µg/Kg-dry			08/18/2016 10:27 PM	Container-01 of 01
Surr: 1,2-Dichloroethane-d4	112	D	5	%Rec	Limit	33-145	08/18/2016 10:27 PM	Container-01 of 01
Surr: 4-Bromofluorobenzene	96.6	D	5	%Rec	Limit	60-148	08/18/2016 10:27 PM	Container-01 of 01
Surr: Toluene-d8	104	D	5	%Rec	Limit	60-132	08/18/2016 10:27 PM	Container-01 of 01

NOTES:
Results may be biased low due to sample not being collected according to 5035A low level specifications.

Analytical Method: D2216 : Analyst: MM

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Percent Moisture	23.3		1	wt%	08/19/2016 3:42 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
c = Calibration acceptability criteria exceeded for this analyte.Value estimated
H = Received/analyzed outside of analytical holding time
J = Estimated value - below calibration range
M-, M+ = Matrix Spike recovery below / above control limit
N = Indicates presumptive evidence of compound
P = Duplicate RPD outside of control limit
r = Reporting limit below calibration range. Value estimated.
S = Recovery outside of control limits for this analyte
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method
Date Reported :

Caitlin Panzarella
Project Manager : Caitlin Panzarella

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NYSDOH ID#10478 www.pacelabs.com

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Pace Analytical Services Inc.
2190 Technology Drive
Schenectady, NY 12308
Attn To : Nicholas Nicholas
Collected : 8/11/2016 10:30:00 AM
Received : 8/17/2016 9:45:00 AM
Collected By CLIENT

AT21306

Lab No. : 1608G07-004
Client Sample ID: BPB-03

Sample Information:
Type : Soil

Origin:

Analytical Method: SW8015D : Prep Method: SW3545A Prep Date: 8/18/2016 12:57:24 PM Analyst: JB

Parameter(s)	Results	Qualifier	D.F.	Units			Analyzed:	Container:
Diesel Range Organics C10-C28	710	D	10	mg/Kg-dry			08/22/2016 5:28 PM	Container-01 of 01
Surr: 1,4-Dichlorobenzene-d4	88.6		1	%Rec	Limit	16-113	08/20/2016 10:51 PM	Container-01 of 01

NOTES:
C10-C28 quantified with Diesel Fuel #2.

4

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
c = Calibration acceptability criteria exceeded for this analyte.Value estimated
H = Received/analyzed outside of analytical holding time
J = Estimated value - below calibration range
M-, M+ = Matrix Spike recovery below / above control limit
N = Indicates presumptive evidence of compound
P = Duplicate RPD outside of control limit
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2190 Technology Drive
Schenectady, NY 12308
Attn To : Nicholas Nicholas
Collected : 8/11/2016 10:30:00 AM
Received : 8/17/2016 9:45:00 AM AT21306
Collected By CLIENT

Lab No. : 1608G07-004
Client Sample ID: BPB-03

Sample Information:
Type : Soil

Origin:

Analytical Method: SW8260C : Prep Method: 5035A-L Analyst: KG

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
1,1,1,2-Tetrachloroethane	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
1,1,1-Trichloroethane	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
1,1,2,2-Tetrachloroethane	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
1,1,2-Trichloroethane	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
1,1-Dichloroethane	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
1,1-Dichloroethene	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
1,1-Dichloropropene	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
1,2,3-Trichlorobenzene	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
1,2,3-Trichloropropane	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
1,2,4-Trichlorobenzene	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
1,2,4-Trimethylbenzene	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
1,2-Dibromo-3-chloropropane	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
1,2-Dibromoethane	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
1,2-Dichlorobenzene	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
1,2-Dichloroethane	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
1,2-Dichloropropane	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
1,3,5-Trimethylbenzene/P-ethyltoluene	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
1,3-Dichlorobenzene	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
1,3-Dichloropropane	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
1,4-Dichlorobenzene	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
2,2-Dichloropropane	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
2-Butanone	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
2-Chloroethylvinyl ether	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
2-Chlorotoluene/4-Chlorotoluene	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
2-Hexanone	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
4-Isopropyltoluene	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
4-Methyl-2-pentanone	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
Acetone	< 700	Dc	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
Benzene	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
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r = Reporting limit below calibration range. Value estimated.
S = Recovery outside of control limits for this analyte
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

Date Reported :

Caitlin Panzarella

Project Manager : Caitlin Panzarella

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Pace Analytical
575 Broad Hollow Road , Melville, NY 11747
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NYSDOH ID#10478 www.pacelabs.com

LABORATORY RESULTS

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Pace Analytical Services Inc.
2190 Technology Drive
Schenectady, NY 12308
Attn To : Nicholas Nicholas
Collected : 8/11/2016 10:30:00 AM
Received : 8/17/2016 9:45:00 AM AT21306
Collected By CLIENT

Lab No. : 1608G07-004
Client Sample ID: BPB-03

Sample Information:
Type : Soil

Origin:

Analytical Method: SW8260C : Prep Method: 5035A-L Analyst: KG

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Bromobenzene	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
Bromochloromethane	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
Bromodichloromethane	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
Bromoform	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
Bromomethane	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
Carbon disulfide	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
Carbon tetrachloride	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
Chlorobenzene	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
Chloroethane	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
Chloroform	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
Chloromethane	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
cis-1,2-Dichloroethene	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
cis-1,3-Dichloropropene	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
Dibromochloromethane	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
Dibromomethane	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
Dichlorodifluoromethane	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
Ethylbenzene	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
Hexachlorobutadiene	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
Isopropylbenzene	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
m,p-Xylene	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
Methyl tert-butyl ether	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
Methylene chloride	< 700	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
Naphthalene	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
n-Butylbenzene	620	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
n-Propylbenzene	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
o-Xylene	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
sec-Butylbenzene	230	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
Styrene	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
tert-Butylbenzene	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01
Tetrachloroethene	< 140	D	58.3	µg/Kg-dry	08/19/2016 10:26 AM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.
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D.F. = Dilution Factor D = Results for Dilution
c = Calibration acceptability criteria exceeded for this analyte.Value estimated
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Date Reported :

Caitlin Panzarella

Project Manager : Caitlin Panzarella

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2190 Technology Drive
Schenectady, NY 12308

Attn To : Nicholas Nicholas

Collected : 8/11/2016 10:30:00 AM
Received : 8/17/2016 9:45:00 AM AT21306
Collected By CLIENT

Lab No. : 1608G07-004
Client Sample ID: BPB-03

Sample Information:
Type : Soil

Origin:

Analytical Method: SW8260C : Prep Method: 5035A-L Analyst: KG

Parameter(s)	Results	Qualifier	D.F.	Units			Analyzed:	Container:
Toluene	< 140	D	58.3	µg/Kg-dry			08/19/2016 10:26 AM	Container-01 of 01
trans-1,2-Dichloroethene	< 140	D	58.3	µg/Kg-dry			08/19/2016 10:26 AM	Container-01 of 01
trans-1,3-Dichloropropene	< 140	D	58.3	µg/Kg-dry			08/19/2016 10:26 AM	Container-01 of 01
Trichloroethene	< 140	D	58.3	µg/Kg-dry			08/19/2016 10:26 AM	Container-01 of 01
Trichlorofluoromethane	< 140	D	58.3	µg/Kg-dry			08/19/2016 10:26 AM	Container-01 of 01
Vinyl acetate	< 140	D	58.3	µg/Kg-dry			08/19/2016 10:26 AM	Container-01 of 01
Vinyl chloride	< 140	D	58.3	µg/Kg-dry			08/19/2016 10:26 AM	Container-01 of 01
Xylene (total)	< 140	D	58.3	µg/Kg-dry			08/19/2016 10:26 AM	Container-01 of 01
Surr: 1,2-Dichloroethane-d4	88.4	D	58.3	%Rec	Limit	33-145	08/19/2016 10:26 AM	Container-01 of 01
Surr: 4-Bromofluorobenzene	92.7	D	58.3	%Rec	Limit	60-148	08/19/2016 10:26 AM	Container-01 of 01
Surr: Toluene-d8	77.7	D	58.3	%Rec	Limit	60-132	08/19/2016 10:26 AM	Container-01 of 01

NOTES:
Results may be biased low due to sample not being collected according to 5035A low level specifications.

Analytical Method: D2216 : Analyst: MM

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Percent Moisture	16.6		1	wt%	08/19/2016 3:43 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
c = Calibration acceptability criteria exceeded for this analyte.Value estimated
H = Received/analyzed outside of analytical holding time
J = Estimated value - below calibration range
M-, M+ = Matrix Spike recovery below / above control limit
N = Indicates presumptive evidence of compound
P = Duplicate RPD outside of control limit
r = Reporting limit below calibration range. Value estimated.
S = Recovery outside of control limits for this analyte
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method
Date Reported :

Caitlin Panzarella
Project Manager : Caitlin Panzarella

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Pace Analytical Services Inc.
2190 Technology Drive
Schenectady, NY 12308
Attn To : Nicholas Nicholas
Collected : 8/11/2016 10:50:00 AM
Received : 8/17/2016 9:45:00 AM AT21307
Collected By CLIENT

Lab No. : 1608G07-005
Client Sample ID: BPB-03

Sample Information:
Type : Soil
Origin:

Analytical Method: SW8015D : Prep Method: SW3545A Prep Date: 8/18/2016 12:57:24 PM Analyst: JB

Parameter(s)	Results	Qualifier	D.F.	Units			Analyzed:	Container:
Diesel Range Organics C10-C28	9,500	D	25	mg/Kg-dry			08/22/2016 6:07 PM	Container-01 of 01
Surr: 1,4-Dichlorobenzene-d4	286	S	1	%Rec	Limit	16-113	08/20/2016 11:30 PM	Container-01 of 01

NOTES:
Surrogate recovery high due to unresolved interferences.
C10-C28 quantified with Diesel Fuel #2.

4

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
c = Calibration acceptability criteria exceeded for this analyte.Value estimated
H = Received/analyzed outside of analytical holding time
J = Estimated value - below calibration range
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NYSDOH ID#10478 www.pacelabs.com

LABORATORY RESULTS

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Pace Analytical Services Inc.
2190 Technology Drive
Schenectady, NY 12308
Attn To : Nicholas Nicholas
Collected : 8/11/2016 10:50:00 AM
Received : 8/17/2016 9:45:00 AM AT21307
Collected By CLIENT

Lab No. : 1608G07-005
Client Sample ID: BPB-03

Sample Information:
Type : Soil

Origin:

Analytical Method: SW8260C : Prep Method: 5035A-L Analyst: KG

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
1,1,1,2-Tetrachloroethane	< 160	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
1,1,1-Trichloroethane	< 160	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
1,1,2,2-Tetrachloroethane	< 160	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
1,1,2-Trichloroethane	< 160	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
1,1-Dichloroethane	< 160	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
1,1-Dichloroethene	< 160	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
1,1-Dichloropropene	< 160	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
1,2,3-Trichlorobenzene	< 160	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
1,2,3-Trichloropropane	< 160	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
1,2,4-Trichlorobenzene	< 160	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
1,2,4-Trimethylbenzene	< 160	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
1,2-Dibromo-3-chloropropane	< 160	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
1,2-Dibromoethane	< 160	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
1,2-Dichlorobenzene	< 160	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
1,2-Dichloroethane	< 160	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
1,2-Dichloropropane	< 160	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
1,3,5-Trimethylbenzene/P-ethyltoluene	< 160	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
1,3-Dichlorobenzene	< 160	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
1,3-Dichloropropane	< 160	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
1,4-Dichlorobenzene	< 160	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
2,2-Dichloropropane	< 160	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
2-Butanone	< 160	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
2-Chloroethylvinyl ether	< 160	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
2-Chlorotoluene/4-Chlorotoluene	< 160	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
2-Hexanone	< 160	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
4-Isopropyltoluene	< 160	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
4-Methyl-2-pentanone	< 160	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
Acetone	< 800	Dc	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
Benzene	< 160	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
c = Calibration acceptability criteria exceeded for this analyte.Value estimated
H = Received/analyzed outside of analytical holding time
J = Estimated value - below calibration range
M-, M+ = Matrix Spike recovery below / above control limit
N = Indicates presumptive evidence of compound
P = Duplicate RPD outside of control limit
r = Reporting limit below calibration range. Value estimated.
S = Recovery outside of control limits for this analyte
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

Date Reported :

Caitlin Panzarella

Project Manager : Caitlin Panzarella

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2190 Technology Drive
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Collected : 8/11/2016 10:50:00 AM
Received : 8/17/2016 9:45:00 AM AT21307
Collected By CLIENT

Lab No. : 1608G07-005
Client Sample ID: BPB-03

Sample Information:
Type : Soil
Origin:

Analytical Method: SW8260C : Prep Method: 5035A-L Analyst: KG

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Bromobenzene	< 160	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
Bromochloromethane	< 160	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
Bromodichloromethane	< 160	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
Bromoform	< 160	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
Bromomethane	< 160	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
Carbon disulfide	< 160	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
Carbon tetrachloride	< 160	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
Chlorobenzene	< 160	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
Chloroethane	< 160	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
Chloroform	< 160	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
Chloromethane	< 160	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
cis-1,2-Dichloroethene	< 160	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
cis-1,3-Dichloropropene	< 160	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
Dibromochloromethane	< 160	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
Dibromomethane	< 160	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
Dichlorodifluoromethane	< 160	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
Ethylbenzene	< 160	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
Hexachlorobutadiene	< 160	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
Isopropylbenzene	2,200	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
m,p-Xylene	< 160	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
Methyl tert-butyl ether	< 160	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
Methylene chloride	< 800	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
Naphthalene	< 160	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
n-Butylbenzene	4,100	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
n-Propylbenzene	3,000	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
o-Xylene	< 160	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
sec-Butylbenzene	4,500	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
Styrene	< 160	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
tert-Butylbenzene	300	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01
Tetrachloroethene	< 160	D	61.5	µg/Kg-dry	08/19/2016 10:48 AM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.
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r = Reporting limit below calibration range. Value estimated.
S = Recovery outside of control limits for this analyte
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

Caitlin Panzarella
Project Manager : Caitlin Panzarella

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Attn To : Nicholas Nicholas

Collected : 8/11/2016 10:50:00 AM
Received : 8/17/2016 9:45:00 AM AT21307
Collected By CLIENT

Lab No. : 1608G07-005
Client Sample ID: BPB-03

Sample Information:
Type : Soil

Origin:

Analytical Method: SW8260C : Prep Method: 5035A-L Analyst: KG

Parameter(s)	Results	Qualifier	D.F.	Units			Analyzed:	Container:
Toluene	< 160	D	61.5	µg/Kg-dry			08/19/2016 10:48 AM	Container-01 of 01
trans-1,2-Dichloroethene	< 160	D	61.5	µg/Kg-dry			08/19/2016 10:48 AM	Container-01 of 01
trans-1,3-Dichloropropene	< 160	D	61.5	µg/Kg-dry			08/19/2016 10:48 AM	Container-01 of 01
Trichloroethene	< 160	D	61.5	µg/Kg-dry			08/19/2016 10:48 AM	Container-01 of 01
Trichlorofluoromethane	< 160	D	61.5	µg/Kg-dry			08/19/2016 10:48 AM	Container-01 of 01
Vinyl acetate	< 160	D	61.5	µg/Kg-dry			08/19/2016 10:48 AM	Container-01 of 01
Vinyl chloride	< 160	D	61.5	µg/Kg-dry			08/19/2016 10:48 AM	Container-01 of 01
Xylene (total)	< 160	D	61.5	µg/Kg-dry			08/19/2016 10:48 AM	Container-01 of 01
Surr: 1,2-Dichloroethane-d4	89.4	D	61.5	%Rec	Limit	33-145	08/19/2016 10:48 AM	Container-01 of 01
Surr: 4-Bromofluorobenzene	97.3	D	61.5	%Rec	Limit	60-148	08/19/2016 10:48 AM	Container-01 of 01
Surr: Toluene-d8	59.5	DS	61.5	%Rec	Limit	60-132	08/19/2016 10:48 AM	Container-01 of 01

NOTES:
Results may be biased low due to sample not being collected according to 5035A low level specifications.

Analytical Method: D2216 : Analyst: MM

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Percent Moisture	23.0		1	wt%	08/19/2016 3:44 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
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H = Received/analyzed outside of analytical holding time
J = Estimated value - below calibration range
M-, M+ = Matrix Spike recovery below / above control limit
N = Indicates presumptive evidence of compound
P = Duplicate RPD outside of control limit
r = Reporting limit below calibration range. Value estimated.
S = Recovery outside of control limits for this analyte
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method
Date Reported :

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2190 Technology Drive
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Attn To : Nicholas Nicholas
Collected : 8/11/2016 11:15:00 AM
Received : 8/17/2016 9:45:00 AM AT21308
Collected By CLIENT

Lab No. : 1608G07-006
Client Sample ID: BPB-04

Sample Information:
Type : Soil
Origin:

Analytical Method: SW8015D : Prep Method: SW3545A Prep Date: 8/18/2016 12:57:24 PM Analyst: JB

Parameter(s)	Results	Qualifier	D.F.	Units			Analyzed:	Container:
Diesel Range Organics C10-C28	420		1	mg/Kg-dry			08/21/2016 12:09 AM	Container-01 of 01
Surr: 1,4-Dichlorobenzene-d4	53.8		1	%Rec	Limit	16-113	08/21/2016 12:09 AM	Container-01 of 01

NOTES:
C10-C28 quantified with Diesel Fuel #2.

4

Qualifiers: E = Value above quantitation range, Value estimated.
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H = Received/analyzed outside of analytical holding time
J = Estimated value - below calibration range
M-, M+ = Matrix Spike recovery below / above control limit
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Received : 8/17/2016 9:45:00 AM AT21308
Collected By CLIENT

Lab No. : 1608G07-006
Client Sample ID: BPB-04

Sample Information:
Type : Soil

Origin:

Analytical Method: SW8260C : Prep Method: 5035A-L Analyst: KG

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
1,1,1,2-Tetrachloroethane	< 160	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
1,1,1-Trichloroethane	< 160	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
1,1,2,2-Tetrachloroethane	< 160	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
1,1,2-Trichloroethane	< 160	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
1,1-Dichloroethane	< 160	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
1,1-Dichloroethene	< 160	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
1,1-Dichloropropene	< 160	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
1,2,3-Trichlorobenzene	< 160	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
1,2,3-Trichloropropane	< 160	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
1,2,4-Trichlorobenzene	< 160	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
1,2,4-Trimethylbenzene	< 160	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
1,2-Dibromo-3-chloropropane	< 160	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
1,2-Dibromoethane	< 160	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
1,2-Dichlorobenzene	< 160	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
1,2-Dichloroethane	< 160	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
1,2-Dichloropropane	< 160	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
1,3,5-Trimethylbenzene/P-ethyltoluene	< 160	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
1,3-Dichlorobenzene	< 160	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
1,3-Dichloropropane	< 160	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
1,4-Dichlorobenzene	< 160	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
2,2-Dichloropropane	< 160	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
2-Butanone	< 160	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
2-Chloroethylvinyl ether	< 160	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
2-Chlorotoluene/4-Chlorotoluene	< 160	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
2-Hexanone	< 160	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
4-Isopropyltoluene	< 160	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
4-Methyl-2-pentanone	< 160	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
Acetone	< 800	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
Benzene	< 160	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
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Collected By CLIENT

Lab No. : 1608G07-006
Client Sample ID: BPB-04

Sample Information:
Type : Soil

Origin:

Analytical Method: SW8260C : Prep Method: 5035A-L Analyst: KG

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Bromobenzene	< 160	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
Bromochloromethane	< 160	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
Bromodichloromethane	< 160	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
Bromoform	< 160	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
Bromomethane	< 160	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
Carbon disulfide	< 160	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
Carbon tetrachloride	< 160	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
Chlorobenzene	< 160	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
Chloroethane	< 160	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
Chloroform	< 160	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
Chloromethane	< 160	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
cis-1,2-Dichloroethene	< 160	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
cis-1,3-Dichloropropene	< 160	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
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Dibromomethane	< 160	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
Dichlorodifluoromethane	< 160	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
Ethylbenzene	< 160	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
Hexachlorobutadiene	< 160	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
Isopropylbenzene	300	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
m,p-Xylene	< 160	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
Methyl tert-butyl ether	< 160	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
Methylene chloride	< 800	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
Naphthalene	< 160	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
n-Butylbenzene	2,400	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
n-Propylbenzene	1,000	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
o-Xylene	< 160	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
sec-Butylbenzene	820	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
Styrene	< 160	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
tert-Butylbenzene	< 160	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01
Tetrachloroethene	< 160	D	61.5	µg/Kg-dry	08/19/2016 12:16 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
c = Calibration acceptability criteria exceeded for this analyte.Value estimated
H = Received/analyzed outside of analytical holding time
J = Estimated value - below calibration range
M-, M+ = Matrix Spike recovery below / above control limit
N = Indicates presumptive evidence of compound
P = Duplicate RPD outside of control limit
r = Reporting limit below calibration range. Value estimated.
S = Recovery outside of control limits for this analyte
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

Caitlin Panzarella
Project Manager : Caitlin Panzarella

Test results meet the requirements of NELAC unless otherwise noted.

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Date Reported :

Pace Analytical
575 Broad Hollow Road , Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

LABORATORY RESULTS

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Pace Analytical Services Inc.
2190 Technology Drive
Schenectady, NY 12308

Attn To : Nicholas Nicholas

Collected : 8/11/2016 11:15:00 AM
Received : 8/17/2016 9:45:00 AM AT21308
Collected By CLIENT

Lab No. : 1608G07-006
Client Sample ID: BPB-04

Sample Information:
Type : Soil

Origin:

Analytical Method: SW8260C : Prep Method: 5035A-L Analyst: KG

Parameter(s)	Results	Qualifier	D.F.	Units			Analyzed:	Container:
Toluene	< 160	D	61.5	µg/Kg-dry			08/19/2016 12:16 PM	Container-01 of 01
trans-1,2-Dichloroethene	< 160	D	61.5	µg/Kg-dry			08/19/2016 12:16 PM	Container-01 of 01
trans-1,3-Dichloropropene	< 160	D	61.5	µg/Kg-dry			08/19/2016 12:16 PM	Container-01 of 01
Trichloroethene	< 160	D	61.5	µg/Kg-dry			08/19/2016 12:16 PM	Container-01 of 01
Trichlorofluoromethane	< 160	D	61.5	µg/Kg-dry			08/19/2016 12:16 PM	Container-01 of 01
Vinyl acetate	< 160	D	61.5	µg/Kg-dry			08/19/2016 12:16 PM	Container-01 of 01
Vinyl chloride	< 160	D	61.5	µg/Kg-dry			08/19/2016 12:16 PM	Container-01 of 01
Xylene (total)	< 160	D	61.5	µg/Kg-dry			08/19/2016 12:16 PM	Container-01 of 01
Surr: 1,2-Dichloroethane-d4	87.7	D	61.5	%Rec	Limit	33-145	08/19/2016 12:16 PM	Container-01 of 01
Surr: 4-Bromofluorobenzene	87.9	D	61.5	%Rec	Limit	60-148	08/19/2016 12:16 PM	Container-01 of 01
Surr: Toluene-d8	72.5	D	61.5	%Rec	Limit	60-132	08/19/2016 12:16 PM	Container-01 of 01

NOTES:
Results may be biased low due to sample not being collected according to 5035A low level specifications.

Analytical Method: D2216 : Analyst: MM

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Percent Moisture	23.0		1	wt%	08/19/2016 3:45 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
c = Calibration acceptability criteria exceeded for this analyte.Value estimated
H = Received/analyzed outside of analytical holding time
J = Estimated value - below calibration range
M-, M+ = Matrix Spike recovery below / above control limit
N = Indicates presumptive evidence of compound
P = Duplicate RPD outside of control limit
r = Reporting limit below calibration range. Value estimated.
S = Recovery outside of control limits for this analyte
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method
Date Reported :

Caitlin Panzarella
Project Manager : Caitlin Panzarella

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Pace Analytical Services Inc.
2190 Technology Drive
Schenectady, NY 12308
Attn To : Nicholas Nicholas
Collected : 8/11/2016 11:50:00 AM
Received : 8/17/2016 9:45:00 AM AT21309
Collected By CLIENT

Lab No. : 1608G07-007
Client Sample ID: BPB-05

Sample Information:
Type : Soil
Origin:

Analytical Method: SW8015D : Prep Method: SW3545A Prep Date: 8/18/2016 12:57:24 PM Analyst: JB

Parameter(s)	Results	Qualifier	D.F.	Units			Analyzed:	Container:
Diesel Range Organics C10-C28	1,500	D	10	mg/Kg-dry			08/22/2016 6:47 PM	Container-01 of 01
Surr: 1,4-Dichlorobenzene-d4	72.3		1	%Rec	Limit	16-113	08/21/2016 2:07 AM	Container-01 of 01

NOTES:
C10-C28 quantified with Diesel Fuel #2.

4

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
c = Calibration acceptability criteria exceeded for this analyte.Value estimated
H = Received/analyzed outside of analytical holding time
J = Estimated value - below calibration range
M-, M+ = Matrix Spike recovery below / above control limit
N = Indicates presumptive evidence of compound
P = Duplicate RPD outside of control limit
r = Reporting limit below calibration range. Value estimated.
S = Recovery outside of control limits for this analyte
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method
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Pace Analytical Services Inc.
2190 Technology Drive
Schenectady, NY 12308
Attn To : Nicholas Nicholas
Collected : 8/11/2016 11:50:00 AM
Received : 8/17/2016 9:45:00 AM AT21309
Collected By CLIENT

Lab No. : 1608G07-007
Client Sample ID: BPB-05

Sample Information:
Type : Soil
Origin:

Analytical Method: SW8260C : Prep Method: 5035A-L Analyst: KG

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
1,1,1,2-Tetrachloroethane	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
1,1,1-Trichloroethane	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
1,1,2,2-Tetrachloroethane	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
1,1,2-Trichloroethane	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
1,1-Dichloroethane	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
1,1-Dichloroethene	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
1,1-Dichloropropene	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
1,2,3-Trichlorobenzene	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
1,2,3-Trichloropropane	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
1,2,4-Trichlorobenzene	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
1,2,4-Trimethylbenzene	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
1,2-Dibromo-3-chloropropane	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
1,2-Dibromoethane	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
1,2-Dichlorobenzene	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
1,2-Dichloroethane	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
1,2-Dichloropropane	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
1,3,5-Trimethylbenzene/P-ethyltoluene	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
1,3-Dichlorobenzene	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
1,3-Dichloropropane	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
1,4-Dichlorobenzene	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
2,2-Dichloropropane	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
2-Butanone	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
2-Chloroethylvinyl ether	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
2-Chlorotoluene/4-Chlorotoluene	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
2-Hexanone	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
4-Isopropyltoluene	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
4-Methyl-2-pentanone	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
Acetone	< 720	Dc	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
Benzene	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
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r = Reporting limit below calibration range. Value estimated.
S = Recovery outside of control limits for this analyte
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

Date Reported :

Caitlin Panzarella
Project Manager : Caitlin Panzarella

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LABORATORY RESULTS

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Pace Analytical Services Inc.
2190 Technology Drive
Schenectady, NY 12308
Attn To : Nicholas Nicholas
Collected : 8/11/2016 11:50:00 AM
Received : 8/17/2016 9:45:00 AM AT21309
Collected By CLIENT

Lab No. : 1608G07-007
Client Sample ID: BPB-05

Sample Information:
Type : Soil

Origin:

Analytical Method: SW8260C : Prep Method: 5035A-L Analyst: KG

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Bromobenzene	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
Bromochloromethane	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
Bromodichloromethane	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
Bromoform	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
Bromomethane	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
Carbon disulfide	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
Carbon tetrachloride	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
Chlorobenzene	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
Chloroethane	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
Chloroform	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
Chloromethane	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
cis-1,2-Dichloroethene	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
cis-1,3-Dichloropropene	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
Dibromochloromethane	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
Dibromomethane	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
Dichlorodifluoromethane	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
Ethylbenzene	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
Hexachlorobutadiene	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
Isopropylbenzene	180	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
m,p-Xylene	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
Methyl tert-butyl ether	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
Methylene chloride	< 720	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
Naphthalene	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
n-Butylbenzene	1,600	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
n-Propylbenzene	350	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
o-Xylene	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
sec-Butylbenzene	630	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
Styrene	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
tert-Butylbenzene	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01
Tetrachloroethene	< 140	D	59	µg/Kg-dry	08/19/2016 12:34 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.
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c = Calibration acceptability criteria exceeded for this analyte.Value estimated
H = Received/analyzed outside of analytical holding time
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P = Duplicate RPD outside of control limit
r = Reporting limit below calibration range. Value estimated.
S = Recovery outside of control limits for this analyte
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

Date Reported :

Caitlin Panzarella

Project Manager : Caitlin Panzarella

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Pace Analytical Services Inc.
2190 Technology Drive
Schenectady, NY 12308

Attn To : Nicholas Nicholas

Collected : 8/11/2016 11:50:00 AM
Received : 8/17/2016 9:45:00 AM AT21309
Collected By CLIENT

Lab No. : 1608G07-007
Client Sample ID: BPB-05

Sample Information:
Type : Soil

Origin:

Analytical Method: SW8260C : Prep Method: 5035A-L Analyst: KG

Parameter(s)	Results	Qualifier	D.F.	Units			Analyzed:	Container:
Toluene	< 140	D	59	µg/Kg-dry			08/19/2016 12:34 PM	Container-01 of 01
trans-1,2-Dichloroethene	< 140	D	59	µg/Kg-dry			08/19/2016 12:34 PM	Container-01 of 01
trans-1,3-Dichloropropene	< 140	D	59	µg/Kg-dry			08/19/2016 12:34 PM	Container-01 of 01
Trichloroethene	< 140	D	59	µg/Kg-dry			08/19/2016 12:34 PM	Container-01 of 01
Trichlorofluoromethane	< 140	D	59	µg/Kg-dry			08/19/2016 12:34 PM	Container-01 of 01
Vinyl acetate	< 140	D	59	µg/Kg-dry			08/19/2016 12:34 PM	Container-01 of 01
Vinyl chloride	< 140	D	59	µg/Kg-dry			08/19/2016 12:34 PM	Container-01 of 01
Xylene (total)	< 140	D	59	µg/Kg-dry			08/19/2016 12:34 PM	Container-01 of 01
Surr: 1,2-Dichloroethane-d4	90.4	D	59	%Rec	Limit	33-145	08/19/2016 12:34 PM	Container-01 of 01
Surr: 4-Bromofluorobenzene	98.0	D	59	%Rec	Limit	60-148	08/19/2016 12:34 PM	Container-01 of 01
Surr: Toluene-d8	72.0	D	59	%Rec	Limit	60-132	08/19/2016 12:34 PM	Container-01 of 01

NOTES:
Results may be biased low due to sample not being collected according to 5035A low level specifications.

Analytical Method: D2216 : Analyst: MM

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Percent Moisture	18.2		1	wt%	08/19/2016 3:46 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
c = Calibration acceptability criteria exceeded for this analyte.Value estimated
H = Received/analyzed outside of analytical holding time
J = Estimated value - below calibration range
M-, M+ = Matrix Spike recovery below / above control limit
N = Indicates presumptive evidence of compound
P = Duplicate RPD outside of control limit
r = Reporting limit below calibration range. Value estimated.
S = Recovery outside of control limits for this analyte
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method
Date Reported :

Caitlin Panzarella
Project Manager : Caitlin Panzarella

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Pace Analytical Services Inc.
2190 Technology Drive
Schenectady, NY 12308
Attn To : Nicholas Nicholas

Collected : 8/11/2016 12:40:00 PM
Received : 8/17/2016 9:45:00 AM AT21310
Collected By CLIENT

Lab No. : 1608G07-008
Client Sample ID: BPB-06

Sample Information:
Type : Soil

Origin:

Analytical Method: SW8015D : Prep Method: SW3545A Prep Date: 8/18/2016 12:57:24 PM Analyst: JB

Parameter(s)	Results	Qualifier	D.F.	Units			Analyzed:	Container:
Diesel Range Organics C10-C28	16,000	D	100	mg/Kg-dry			08/22/2016 7:25 PM	Container-01 of 01
Surr: 1,4-Dichlorobenzene-d4	0	S	1	%Rec	Limit	16-113	08/21/2016 2:46 AM	Container-01 of 01

NOTES:
Surrogate masked due to unresolved interferences.
C10-C28 quantified with Diesel Fuel #2.

4

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
c = Calibration acceptability criteria exceeded for this analyte.Value estimated
H = Received/analyzed outside of analytical holding time
J = Estimated value - below calibration range
M-, M+ = Matrix Spike recovery below / above control limit
N = Indicates presumptive evidence of compound
P = Duplicate RPD outside of control limit
r = Reporting limit below calibration range. Value estimated.
S = Recovery outside of control limits for this analyte
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method
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Pace Analytical Services Inc.
2190 Technology Drive
Schenectady, NY 12308
Attn To : Nicholas Nicholas
Collected : 8/11/2016 12:40:00 PM
Received : 8/17/2016 9:45:00 AM AT21310
Collected By CLIENT

Lab No. : 1608G07-008
Client Sample ID: BPB-06

Sample Information:
Type : Soil

Origin:

Analytical Method: SW8260C : Prep Method: 5035A-L Analyst: KG

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
1,1,1,2-Tetrachloroethane	< 130	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
1,1,1-Trichloroethane	< 130	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
1,1,2,2-Tetrachloroethane	< 130	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
1,1,2-Trichloroethane	< 130	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
1,1-Dichloroethane	< 130	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
1,1-Dichloroethene	< 130	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
1,1-Dichloropropene	< 130	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
1,2,3-Trichlorobenzene	< 130	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
1,2,3-Trichloropropane	< 130	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
1,2,4-Trichlorobenzene	< 130	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
1,2,4-Trimethylbenzene	< 130	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
1,2-Dibromo-3-chloropropane	< 130	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
1,2-Dibromoethane	< 130	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
1,2-Dichlorobenzene	< 130	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
1,2-Dichloroethane	< 130	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
1,2-Dichloropropane	< 130	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
1,3,5-Trimethylbenzene/P-ethyltoluene	< 130	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
1,3-Dichlorobenzene	< 130	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
1,3-Dichloropropane	< 130	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
1,4-Dichlorobenzene	< 130	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
2,2-Dichloropropane	< 130	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
2-Butanone	< 130	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
2-Chloroethylvinyl ether	< 130	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
2-Chlorotoluene/4-Chlorotoluene	< 130	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
2-Hexanone	< 130	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
4-Isopropyltoluene	< 130	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
4-Methyl-2-pentanone	< 130	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
Acetone	< 640	Dc	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
Benzene	< 130	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
c = Calibration acceptability criteria exceeded for this analyte.Value estimated
H = Received/analyzed outside of analytical holding time
J = Estimated value - below calibration range
M-, M+ = Matrix Spike recovery below / above control limit
N = Indicates presumptive evidence of compound
P = Duplicate RPD outside of control limit
r = Reporting limit below calibration range. Value estimated.
S = Recovery outside of control limits for this analyte
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method
Date Reported :

Caitlin Panzarella
Project Manager : Caitlin Panzarella

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LABORATORY RESULTS

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Pace Analytical Services Inc.
2190 Technology Drive
Schenectady, NY 12308
Attn To : Nicholas Nicholas
Collected : 8/11/2016 12:40:00 PM
Received : 8/17/2016 9:45:00 AM AT21310
Collected By CLIENT

Lab No. : 1608G07-008
Client Sample ID: BPB-06

Sample Information:
Type : Soil

Origin:

Analytical Method: SW8260C : Prep Method: 5035A-L Analyst: KG

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Bromobenzene	< 130	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
Bromochloromethane	< 130	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
Bromodichloromethane	< 130	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
Bromoform	< 130	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
Bromomethane	< 130	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
Carbon disulfide	< 130	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
Carbon tetrachloride	< 130	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
Chlorobenzene	< 130	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
Chloroethane	< 130	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
Chloroform	< 130	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
Chloromethane	< 130	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
cis-1,2-Dichloroethene	< 130	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
cis-1,3-Dichloropropene	< 130	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
Dibromochloromethane	< 130	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
Dibromomethane	< 130	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
Dichlorodifluoromethane	< 130	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
Ethylbenzene	< 130	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
Hexachlorobutadiene	< 130	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
Isopropylbenzene	4,900	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
m,p-Xylene	< 130	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
Methyl tert-butyl ether	< 130	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
Methylene chloride	< 640	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
Naphthalene	< 130	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
n-Butylbenzene	5,500	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
n-Propylbenzene	2,500	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
o-Xylene	< 130	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
sec-Butylbenzene	7,800	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
Styrene	< 130	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
tert-Butylbenzene	510	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01
Tetrachloroethene	< 130	D	56	µg/Kg-dry	08/19/2016 2:11 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.
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Date Reported :

Caitlin Panzarella

Project Manager : Caitlin Panzarella

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2190 Technology Drive
Schenectady, NY 12308
Attn To : Nicholas Nicholas

Collected : 8/11/2016 12:40:00 PM
Received : 8/17/2016 9:45:00 AM AT21310
Collected By CLIENT

Lab No. : 1608G07-008
Client Sample ID: BPB-06

Sample Information:
Type : Soil

Origin:

Analytical Method: SW8260C : Prep Method: 5035A-L Analyst: KG

Parameter(s)	Results	Qualifier	D.F.	Units			Analyzed:	Container:
Toluene	< 130	D	56	µg/Kg-dry			08/19/2016 2:11 PM	Container-01 of 01
trans-1,2-Dichloroethene	< 130	D	56	µg/Kg-dry			08/19/2016 2:11 PM	Container-01 of 01
trans-1,3-Dichloropropene	< 130	D	56	µg/Kg-dry			08/19/2016 2:11 PM	Container-01 of 01
Trichloroethene	< 130	D	56	µg/Kg-dry			08/19/2016 2:11 PM	Container-01 of 01
Trichlorofluoromethane	< 130	D	56	µg/Kg-dry			08/19/2016 2:11 PM	Container-01 of 01
Vinyl acetate	< 130	D	56	µg/Kg-dry			08/19/2016 2:11 PM	Container-01 of 01
Vinyl chloride	< 130	D	56	µg/Kg-dry			08/19/2016 2:11 PM	Container-01 of 01
Xylene (total)	< 130	D	56	µg/Kg-dry			08/19/2016 2:11 PM	Container-01 of 01
Surr: 1,2-Dichloroethane-d4	89.4	D	56	%Rec	Limit	33-145	08/19/2016 2:11 PM	Container-01 of 01
Surr: 4-Bromofluorobenzene	89.6	D	56	%Rec	Limit	60-148	08/19/2016 2:11 PM	Container-01 of 01
Surr: Toluene-d8	53.1	DS	56	%Rec	Limit	60-132	08/19/2016 2:11 PM	Container-01 of 01

NOTES:
Results may be biased low due to sample not being collected according to 5035A low level specifications.

Analytical Method: D2216 : Analyst: MM

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Percent Moisture	11.9		1	wt%	08/19/2016 3:46 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.
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H = Received/analyzed outside of analytical holding time
J = Estimated value - below calibration range
M-, M+ = Matrix Spike recovery below / above control limit
N = Indicates presumptive evidence of compound
P = Duplicate RPD outside of control limit
r = Reporting limit below calibration range. Value estimated.
S = Recovery outside of control limits for this analyte
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method
Date Reported :

Caitlin Panzarella
Project Manager : Caitlin Panzarella

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2190 Technology Drive
Schenectady, NY 12308
Attn To : Nicholas Nicholas
Collected : 8/11/2016 1:25:00 PM
Received : 8/17/2016 9:45:00 AM AT21311
Collected By CLIENT

Lab No. : 1608G07-009
Client Sample ID: BPB-07

Sample Information:
Type : Soil

Origin:

Analytical Method: SW8015D : Prep Method: SW3545A Prep Date: 8/18/2016 12:57:24 PM Analyst: JB

Parameter(s)	Results	Qualifier	D.F.	Units			Analyzed:	Container:
Diesel Range Organics C10-C28	6,400	D	100	mg/Kg-dry			08/22/2016 8:04 PM	Container-01 of 01
Surr: 1,4-Dichlorobenzene-d4	249	S	1	%Rec	Limit	16-113	08/21/2016 3:25 AM	Container-01 of 01

NOTES:
Surrogate recovery high due to unresolved interferences.
C10-C28 quantified with Diesel Fuel #2.

4

Qualifiers: E = Value above quantitation range, Value estimated.
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Collected : 8/11/2016 1:25:00 PM
Received : 8/17/2016 9:45:00 AM AT21311
Collected By CLIENT

Lab No. : 1608G07-009
Client Sample ID: BPB-07

Sample Information:
Type : Soil

Origin:

Analytical Method: SW8260C : Prep Method: 5035A-L Analyst: KG

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
1,1,1,2-Tetrachloroethane	< 160	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
1,1,1-Trichloroethane	< 160	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
1,1,2,2-Tetrachloroethane	< 160	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
1,1,2-Trichloroethane	< 160	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
1,1-Dichloroethane	< 160	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
1,1-Dichloroethene	< 160	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
1,1-Dichloropropene	< 160	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
1,2,3-Trichlorobenzene	< 160	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
1,2,3-Trichloropropane	< 160	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
1,2,4-Trichlorobenzene	< 160	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
1,2,4-Trimethylbenzene	< 160	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
1,2-Dibromo-3-chloropropane	< 160	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
1,2-Dibromoethane	< 160	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
1,2-Dichlorobenzene	< 160	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
1,2-Dichloroethane	< 160	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
1,2-Dichloropropane	< 160	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
1,3,5-Trimethylbenzene/P-ethyltoluene	200	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
1,3-Dichlorobenzene	< 160	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
1,3-Dichloropropane	< 160	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
1,4-Dichlorobenzene	< 160	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
2,2-Dichloropropane	< 160	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
2-Butanone	< 160	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
2-Chloroethylvinyl ether	< 160	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
2-Chlorotoluene/4-Chlorotoluene	< 160	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
2-Hexanone	< 160	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
4-Isopropyltoluene	< 160	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
4-Methyl-2-pentanone	< 160	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
Acetone	< 780	Dc	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
Benzene	< 160	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
c = Calibration acceptability criteria exceeded for this analyte.Value estimated
H = Received/analyzed outside of analytical holding time
J = Estimated value - below calibration range
M-, M+ = Matrix Spike recovery below / above control limit
N = Indicates presumptive evidence of compound
P = Duplicate RPD outside of control limit
r = Reporting limit below calibration range. Value estimated.
S = Recovery outside of control limits for this analyte
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method
Date Reported :

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2190 Technology Drive
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Attn To : Nicholas Nicholas
Collected : 8/11/2016 1:25:00 PM
Received : 8/17/2016 9:45:00 AM AT21311
Collected By CLIENT

Lab No. : 1608G07-009
Client Sample ID: BPB-07

Sample Information:
Type : Soil

Origin:

Analytical Method: SW8260C : Prep Method: 5035A-L Analyst: KG

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Bromobenzene	< 160	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
Bromochloromethane	< 160	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
Bromodichloromethane	< 160	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
Bromoform	< 160	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
Bromomethane	< 160	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
Carbon disulfide	< 160	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
Carbon tetrachloride	< 160	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
Chlorobenzene	< 160	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
Chloroethane	< 160	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
Chloroform	< 160	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
Chloromethane	< 160	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
cis-1,2-Dichloroethene	< 160	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
cis-1,3-Dichloropropene	< 160	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
Dibromochloromethane	< 160	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
Dibromomethane	< 160	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
Dichlorodifluoromethane	< 160	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
Ethylbenzene	< 160	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
Hexachlorobutadiene	< 160	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
Isopropylbenzene	750	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
m,p-Xylene	210	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
Methyl tert-butyl ether	< 160	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
Methylene chloride	< 780	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
Naphthalene	960	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
n-Butylbenzene	1,400	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
n-Propylbenzene	250	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
o-Xylene	< 160	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
sec-Butylbenzene	2,800	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
Styrene	< 160	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
tert-Butylbenzene	270	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01
Tetrachloroethene	< 160	D	61	µg/Kg-dry	08/19/2016 1:36 PM	Container-01 of 01

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Received : 8/17/2016 9:45:00 AM AT21311
Collected By CLIENT

Lab No. : 1608G07-009
Client Sample ID: BPB-07

Sample Information:
Type : Soil

Origin:

Analytical Method: SW8260C : Prep Method: 5035A-L Analyst: KG

Parameter(s)	Results	Qualifier	D.F.	Units			Analyzed:	Container:
Toluene	< 160	D	61	µg/Kg-dry			08/19/2016 1:36 PM	Container-01 of 01
trans-1,2-Dichloroethene	< 160	D	61	µg/Kg-dry			08/19/2016 1:36 PM	Container-01 of 01
trans-1,3-Dichloropropene	< 160	D	61	µg/Kg-dry			08/19/2016 1:36 PM	Container-01 of 01
Trichloroethene	< 160	D	61	µg/Kg-dry			08/19/2016 1:36 PM	Container-01 of 01
Trichlorofluoromethane	< 160	D	61	µg/Kg-dry			08/19/2016 1:36 PM	Container-01 of 01
Vinyl acetate	< 160	D	61	µg/Kg-dry			08/19/2016 1:36 PM	Container-01 of 01
Vinyl chloride	< 160	D	61	µg/Kg-dry			08/19/2016 1:36 PM	Container-01 of 01
Xylene (total)	340	D	61	µg/Kg-dry			08/19/2016 1:36 PM	Container-01 of 01
Surr: 1,2-Dichloroethane-d4	88.2	D	61	%Rec	Limit	33-145	08/19/2016 1:36 PM	Container-01 of 01
Surr: 4-Bromofluorobenzene	116	D	61	%Rec	Limit	60-148	08/19/2016 1:36 PM	Container-01 of 01
Surr: Toluene-d8	67.3	D	61	%Rec	Limit	60-132	08/19/2016 1:36 PM	Container-01 of 01

NOTES:
Results may be biased low due to sample not being collected according to 5035A low level specifications.

Analytical Method: D2216 : Analyst: MM

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Percent Moisture	21.9		1	wt%	08/19/2016 3:47 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
c = Calibration acceptability criteria exceeded for this analyte.Value estimated
H = Received/analyzed outside of analytical holding time
J = Estimated value - below calibration range
M-, M+ = Matrix Spike recovery below / above control limit
N = Indicates presumptive evidence of compound
P = Duplicate RPD outside of control limit
r = Reporting limit below calibration range. Value estimated.
S = Recovery outside of control limits for this analyte
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method
Date Reported :

Caitlin Panzarella
Project Manager : Caitlin Panzarella

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Pace Analytical
575 Broad Hollow Road , Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

LABORATORY RESULTS

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Pace Analytical Services Inc.
2190 Technology Drive
Schenectady, NY 12308
Attn To : Nicholas Nicholas
Collected : 8/11/2016 2:30:00 PM
Received : 8/17/2016 9:45:00 AM AT21312
Collected By CLIENT

Lab No. : 1608G07-010
Client Sample ID: BPB-08

Sample Information:
Type : Soil
Origin:

Analytical Method: SW8015D : Prep Method: SW3545A Prep Date: 8/18/2016 12:57:24 PM Analyst: JB

Parameter(s)	Results	Qualifier	D.F.	Units			Analyzed:	Container:
Diesel Range Organics C10-C28	< 8.7		1	mg/Kg-dry			08/21/2016 4:04 AM	Container-01 of 01
Surr: 1,4-Dichlorobenzene-d4	42.3		1	%Rec	Limit	16-113	08/21/2016 4:04 AM	Container-01 of 01

NOTES:
C10-C28 quantified with Diesel Fuel #2.

4

Qualifiers: E = Value above quantitation range, Value estimated.
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Received : 8/17/2016 9:45:00 AM AT21312
Collected By CLIENT

Lab No. : 1608G07-010
Client Sample ID: BPB-08

Sample Information:
Type : Soil

Origin:

Analytical Method: SW8260C : Prep Method: 5035A-L Analyst: KG

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
1,1,1,2-Tetrachloroethane	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
1,1,1-Trichloroethane	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
1,1,2,2-Tetrachloroethane	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
1,1,2-Trichloroethane	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
1,1-Dichloroethane	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
1,1-Dichloroethene	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
1,1-Dichloropropene	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
1,2,3-Trichlorobenzene	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
1,2,3-Trichloropropane	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
1,2,4-Trichlorobenzene	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
1,2,4-Trimethylbenzene	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
1,2-Dibromo-3-chloropropane	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
1,2-Dibromoethane	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
1,2-Dichlorobenzene	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
1,2-Dichloroethane	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
1,2-Dichloropropane	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
1,3,5-Trimethylbenzene/P-ethyltoluene	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
1,3-Dichlorobenzene	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
1,3-Dichloropropane	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
1,4-Dichlorobenzene	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
2,2-Dichloropropane	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
2-Butanone	23	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
2-Chloroethylvinyl ether	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
2-Chlorotoluene/4-Chlorotoluene	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
2-Hexanone	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
4-Isopropyltoluene	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
4-Methyl-2-pentanone	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
Acetone	< 65	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
Benzene	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.
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Collected : 8/11/2016 2:30:00 PM
Received : 8/17/2016 9:45:00 AM AT21312
Collected By CLIENT

Lab No. : 1608G07-010
Client Sample ID: BPB-08

Sample Information:
Type : Soil

Origin:

Analytical Method: SW8260C : Prep Method: 5035A-L Analyst: KG

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Bromobenzene	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
Bromochloromethane	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
Bromodichloromethane	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
Bromoform	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
Bromomethane	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
Carbon disulfide	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
Carbon tetrachloride	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
Chlorobenzene	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
Chloroethane	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
Chloroform	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
Chloromethane	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
cis-1,2-Dichloroethene	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
cis-1,3-Dichloropropene	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
Dibromochloromethane	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
Dibromomethane	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
Dichlorodifluoromethane	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
Ethylbenzene	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
Hexachlorobutadiene	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
Isopropylbenzene	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
m,p-Xylene	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
Methyl tert-butyl ether	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
Methylene chloride	< 65	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
Naphthalene	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
n-Butylbenzene	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
n-Propylbenzene	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
o-Xylene	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
sec-Butylbenzene	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
Styrene	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
tert-Butylbenzene	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01
Tetrachloroethene	< 13	D	5	µg/Kg-dry	08/18/2016 10:49 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.
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Caitlin Panzarella

Project Manager : Caitlin Panzarella

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Attn To : Nicholas Nicholas
Collected : 8/11/2016 2:30:00 PM
Received : 8/17/2016 9:45:00 AM AT21312
Collected By CLIENT

Lab No. : 1608G07-010
Client Sample ID: BPB-08

Sample Information:
Type : Soil
Origin:

Analytical Method: SW8260C : Prep Method: 5035A-L Analyst: KG

Parameter(s)	Results	Qualifier	D.F.	Units			Analyzed:	Container:
Toluene	< 13	D	5	µg/Kg-dry			08/18/2016 10:49 PM	Container-01 of 01
trans-1,2-Dichloroethene	< 13	D	5	µg/Kg-dry			08/18/2016 10:49 PM	Container-01 of 01
trans-1,3-Dichloropropene	< 13	D	5	µg/Kg-dry			08/18/2016 10:49 PM	Container-01 of 01
Trichloroethene	< 13	D	5	µg/Kg-dry			08/18/2016 10:49 PM	Container-01 of 01
Trichlorofluoromethane	< 13	D	5	µg/Kg-dry			08/18/2016 10:49 PM	Container-01 of 01
Vinyl acetate	< 13	D	5	µg/Kg-dry			08/18/2016 10:49 PM	Container-01 of 01
Vinyl chloride	< 13	D	5	µg/Kg-dry			08/18/2016 10:49 PM	Container-01 of 01
Xylene (total)	< 13	D	5	µg/Kg-dry			08/18/2016 10:49 PM	Container-01 of 01
Surr: 1,2-Dichloroethane-d4	103	D	5	%Rec	Limit	33-145	08/18/2016 10:49 PM	Container-01 of 01
Surr: 4-Bromofluorobenzene	101	D	5	%Rec	Limit	60-148	08/18/2016 10:49 PM	Container-01 of 01
Surr: Toluene-d8	102	D	5	%Rec	Limit	60-132	08/18/2016 10:49 PM	Container-01 of 01

NOTES:
Results may be biased low due to sample not being collected according to 5035A low level specifications.

Analytical Method: D2216 : Analyst: MM

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Percent Moisture	22.7		1	wt%	08/19/2016 3:48 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
c = Calibration acceptability criteria exceeded for this analyte.Value estimated
H = Received/analyzed outside of analytical holding time
J = Estimated value - below calibration range
M-, M+ = Matrix Spike recovery below / above control limit
N = Indicates presumptive evidence of compound
P = Duplicate RPD outside of control limit
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2190 Technology Drive
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Attn To : Nicholas Nicholas
Collected : 8/11/2016 3:20:00 PM
Received : 8/17/2016 9:45:00 AM AT21313
Collected By CLIENT

Lab No. : 1608G07-011
Client Sample ID: BPB-09

Sample Information:
Type : Soil
Origin:

Analytical Method: SW8015D : Prep Method: SW3545A Prep Date: 8/18/2016 12:57:24 PM Analyst: JB

Parameter(s)	Results	Qualifier	D.F.	Units			Analyzed:	Container:
Diesel Range Organics C10-C28	< 8.4		1	mg/Kg-dry			08/21/2016 4:43 AM	Container-01 of 01
Surr: 1,4-Dichlorobenzene-d4	29.2		1	%Rec	Limit	16-113	08/21/2016 4:43 AM	Container-01 of 01

NOTES:
C10-C28 quantified with Diesel Fuel #2.

4

Qualifiers: E = Value above quantitation range, Value estimated.
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Collected By CLIENT

Lab No. : 1608G07-011
Client Sample ID: BPB-09

Sample Information:
Type : Soil

Origin:

Analytical Method: SW8260C : Prep Method: 5035A-L Analyst: KG

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
1,1,1,2-Tetrachloroethane	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
1,1,1-Trichloroethane	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
1,1,2,2-Tetrachloroethane	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
1,1,2-Trichloroethane	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
1,1-Dichloroethane	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
1,1-Dichloroethene	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
1,1-Dichloropropene	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
1,2,3-Trichlorobenzene	24	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
1,2,3-Trichloropropane	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
1,2,4-Trichlorobenzene	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
1,2,4-Trimethylbenzene	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
1,2-Dibromo-3-chloropropane	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
1,2-Dibromoethane	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
1,2-Dichlorobenzene	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
1,2-Dichloroethane	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
1,2-Dichloropropane	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
1,3,5-Trimethylbenzene/P-ethyltoluene	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
1,3-Dichlorobenzene	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
1,3-Dichloropropane	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
1,4-Dichlorobenzene	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
2,2-Dichloropropane	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
2-Butanone	29	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
2-Chloroethylvinyl ether	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
2-Chlorotoluene/4-Chlorotoluene	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
2-Hexanone	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
4-Isopropyltoluene	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
4-Methyl-2-pentanone	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
Acetone	74	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
Benzene	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
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c = Calibration acceptability criteria exceeded for this analyte.Value estimated
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Collected By CLIENT

Lab No. : 1608G07-011
Client Sample ID: BPB-09

Sample Information:
Type : Soil

Origin:

Analytical Method: SW8260C : Prep Method: 5035A-L Analyst: KG

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Bromobenzene	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
Bromochloromethane	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
Bromodichloromethane	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
Bromoform	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
Bromomethane	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
Carbon disulfide	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
Carbon tetrachloride	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
Chlorobenzene	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
Chloroethane	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
Chloroform	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
Chloromethane	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
cis-1,2-Dichloroethene	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
cis-1,3-Dichloropropene	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
Dibromochloromethane	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
Dibromomethane	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
Dichlorodifluoromethane	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
Ethylbenzene	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
Hexachlorobutadiene	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
Isopropylbenzene	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
m,p-Xylene	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
Methyl tert-butyl ether	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
Methylene chloride	< 63	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
Naphthalene	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
n-Butylbenzene	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
n-Propylbenzene	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
o-Xylene	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
sec-Butylbenzene	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
Styrene	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
tert-Butylbenzene	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01
Tetrachloroethene	< 13	D	5	µg/Kg-dry	08/18/2016 11:11 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
c = Calibration acceptability criteria exceeded for this analyte.Value estimated
H = Received/analyzed outside of analytical holding time
J = Estimated value - below calibration range
M-, M+ = Matrix Spike recovery below / above control limit
N = Indicates presumptive evidence of compound
P = Duplicate RPD outside of control limit
r = Reporting limit below calibration range. Value estimated.
S = Recovery outside of control limits for this analyte
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

Caitlin Panzarella

Project Manager : Caitlin Panzarella

Test results meet the requirements of NELAC unless otherwise noted.

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Date Reported :

Pace Analytical
575 Broad Hollow Road , Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

LABORATORY RESULTS

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Pace Analytical Services Inc.
2190 Technology Drive
Schenectady, NY 12308
Attn To : Nicholas Nicholas
Collected : 8/11/2016 3:20:00 PM
Received : 8/17/2016 9:45:00 AM AT21313
Collected By CLIENT

Lab No. : 1608G07-011
Client Sample ID: BPB-09

Sample Information:
Type : Soil
Origin:

Analytical Method: SW8260C : Prep Method: 5035A-L Analyst: KG

Parameter(s)	Results	Qualifier	D.F.	Units			Analyzed:	Container:
Toluene	< 13	D	5	µg/Kg-dry			08/18/2016 11:11 PM	Container-01 of 01
trans-1,2-Dichloroethene	< 13	D	5	µg/Kg-dry			08/18/2016 11:11 PM	Container-01 of 01
trans-1,3-Dichloropropene	< 13	D	5	µg/Kg-dry			08/18/2016 11:11 PM	Container-01 of 01
Trichloroethene	< 13	D	5	µg/Kg-dry			08/18/2016 11:11 PM	Container-01 of 01
Trichlorofluoromethane	< 13	D	5	µg/Kg-dry			08/18/2016 11:11 PM	Container-01 of 01
Vinyl acetate	< 13	D	5	µg/Kg-dry			08/18/2016 11:11 PM	Container-01 of 01
Vinyl chloride	< 13	D	5	µg/Kg-dry			08/18/2016 11:11 PM	Container-01 of 01
Xylene (total)	< 13	D	5	µg/Kg-dry			08/18/2016 11:11 PM	Container-01 of 01
Surr: 1,2-Dichloroethane-d4	104	D	5	%Rec	Limit	33-145	08/18/2016 11:11 PM	Container-01 of 01
Surr: 4-Bromofluorobenzene	119	D	5	%Rec	Limit	60-148	08/18/2016 11:11 PM	Container-01 of 01
Surr: Toluene-d8	93.2	D	5	%Rec	Limit	60-132	08/18/2016 11:11 PM	Container-01 of 01

NOTES:
Results may be biased low due to sample not being collected according to 5035A low level specifications.

Analytical Method: D2216 : Analyst: MM

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Percent Moisture	20.6		1	wt%	08/19/2016 3:49 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
c = Calibration acceptability criteria exceeded for this analyte.Value estimated
H = Received/analyzed outside of analytical holding time
J = Estimated value - below calibration range
M-, M+ = Matrix Spike recovery below / above control limit
N = Indicates presumptive evidence of compound
P = Duplicate RPD outside of control limit
r = Reporting limit below calibration range. Value estimated.
S = Recovery outside of control limits for this analyte
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method
Date Reported :

Caitlin Panzarella
Project Manager : Caitlin Panzarella

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NYSDOH ID#10478 www.pacelabs.com

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Pace Analytical Services Inc.
2190 Technology Drive
Schenectady, NY 12308
Attn To : Nicholas Nicholas
Collected : 8/11/2016 3:50:00 PM
Received : 8/17/2016 9:45:00 AM AT21314
Collected By CLIENT

Lab No. : 1608G07-012
Client Sample ID: BPB-10

Sample Information:
Type : Soil
Origin:

Analytical Method: SW8015D : Prep Method: SW3545A Prep Date: 8/18/2016 12:57:24 PM Analyst: JB

Parameter(s)	Results	Qualifier	D.F.	Units			Analyzed:	Container:
Diesel Range Organics C10-C28	780	D	10	mg/Kg-dry			08/22/2016 8:43 PM	Container-01 of 01
Surr: 1,4-Dichlorobenzene-d4	87.6		1	%Rec	Limit	16-113	08/21/2016 5:23 AM	Container-01 of 01

NOTES:
C10-C28 quantified with Diesel Fuel #2.

4

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
c = Calibration acceptability criteria exceeded for this analyte.Value estimated
H = Received/analyzed outside of analytical holding time
J = Estimated value - below calibration range
M-, M+ = Matrix Spike recovery below / above control limit
N = Indicates presumptive evidence of compound
P = Duplicate RPD outside of control limit
r = Reporting limit below calibration range. Value estimated.
S = Recovery outside of control limits for this analyte
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method
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Pace Analytical Services Inc.
2190 Technology Drive
Schenectady, NY 12308
Attn To : Nicholas Nicholas
Collected : 8/11/2016 3:50:00 PM
Received : 8/17/2016 9:45:00 AM AT21314
Collected By CLIENT

Lab No. : 1608G07-012
Client Sample ID: BPB-10

Sample Information:
Type : Soil

Origin:

Analytical Method: SW8260C : Prep Method: 5035A-L Analyst: KG

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
1,1,1,2-Tetrachloroethane	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
1,1,1-Trichloroethane	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
1,1,2,2-Tetrachloroethane	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
1,1,2-Trichloroethane	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
1,1-Dichloroethane	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
1,1-Dichloroethene	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
1,1-Dichloropropene	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
1,2,3-Trichlorobenzene	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
1,2,3-Trichloropropane	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
1,2,4-Trichlorobenzene	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
1,2,4-Trimethylbenzene	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
1,2-Dibromo-3-chloropropane	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
1,2-Dibromoethane	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
1,2-Dichlorobenzene	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
1,2-Dichloroethane	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
1,2-Dichloropropane	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
1,3,5-Trimethylbenzene/P-ethyltoluene	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
1,3-Dichlorobenzene	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
1,3-Dichloropropane	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
1,4-Dichlorobenzene	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
2,2-Dichloropropane	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
2-Butanone	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
2-Chloroethylvinyl ether	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
2-Chlorotoluene/4-Chlorotoluene	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
2-Hexanone	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
4-Isopropyltoluene	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
4-Methyl-2-pentanone	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
Acetone	< 60	Dc	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
Benzene	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
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c = Calibration acceptability criteria exceeded for this analyte.Value estimated
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S = Recovery outside of control limits for this analyte
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method
Date Reported :

Caitlin Panzarella
Project Manager : Caitlin Panzarella

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NYSDOH ID#10478 www.pacelabs.com

LABORATORY RESULTS

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Pace Analytical Services Inc.
2190 Technology Drive
Schenectady, NY 12308
Attn To : Nicholas Nicholas
Collected : 8/11/2016 3:50:00 PM
Received : 8/17/2016 9:45:00 AM AT21314
Collected By CLIENT

Lab No. : 1608G07-012
Client Sample ID: BPB-10

Sample Information:
Type : Soil

Origin:

Analytical Method: SW8260C : Prep Method: 5035A-L Analyst: KG

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Bromobenzene	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
Bromochloromethane	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
Bromodichloromethane	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
Bromoform	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
Bromomethane	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
Carbon disulfide	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
Carbon tetrachloride	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
Chlorobenzene	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
Chloroethane	< 12	Dc	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
Chloroform	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
Chloromethane	< 12	Dc	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
cis-1,2-Dichloroethene	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
cis-1,3-Dichloropropene	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
Dibromochloromethane	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
Dibromomethane	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
Dichlorodifluoromethane	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
Ethylbenzene	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
Hexachlorobutadiene	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
Isopropylbenzene	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
m,p-Xylene	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
Methyl tert-butyl ether	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
Methylene chloride	< 60	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
Naphthalene	18	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
n-Butylbenzene	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
n-Propylbenzene	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
o-Xylene	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
sec-Butylbenzene	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
Styrene	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
tert-Butylbenzene	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01
Tetrachloroethene	< 12	D	5	µg/Kg-dry	08/21/2016 2:09 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
c = Calibration acceptability criteria exceeded for this analyte.Value estimated
H = Received/analyzed outside of analytical holding time
J = Estimated value - below calibration range
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r = Reporting limit below calibration range. Value estimated.
S = Recovery outside of control limits for this analyte
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

Caitlin Panzarella

Project Manager : Caitlin Panzarella

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Date Reported :

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Pace Analytical Services Inc.
2190 Technology Drive
Schenectady, NY 12308

Attn To : Nicholas Nicholas

Collected : 8/11/2016 3:50:00 PM
Received : 8/17/2016 9:45:00 AM AT21314
Collected By CLIENT

Lab No. : 1608G07-012
Client Sample ID: BPB-10

Sample Information:
Type : Soil

Origin:

Analytical Method: SW8260C : Prep Method: 5035A-L Analyst: KG

Parameter(s)	Results	Qualifier	D.F.	Units			Analyzed:	Container:
Toluene	< 12	D	5	µg/Kg-dry			08/21/2016 2:09 PM	Container-01 of 01
trans-1,2-Dichloroethene	< 12	D	5	µg/Kg-dry			08/21/2016 2:09 PM	Container-01 of 01
trans-1,3-Dichloropropene	< 12	D	5	µg/Kg-dry			08/21/2016 2:09 PM	Container-01 of 01
Trichloroethene	< 12	D	5	µg/Kg-dry			08/21/2016 2:09 PM	Container-01 of 01
Trichlorofluoromethane	< 12	D	5	µg/Kg-dry			08/21/2016 2:09 PM	Container-01 of 01
Vinyl acetate	< 12	D	5	µg/Kg-dry			08/21/2016 2:09 PM	Container-01 of 01
Vinyl chloride	< 12	D	5	µg/Kg-dry			08/21/2016 2:09 PM	Container-01 of 01
Xylene (total)	< 12	D	5	µg/Kg-dry			08/21/2016 2:09 PM	Container-01 of 01
Surr: 1,2-Dichloroethane-d4	107	D	5	%Rec	Limit	33-145	08/21/2016 2:09 PM	Container-01 of 01
Surr: 4-Bromofluorobenzene	121	D	5	%Rec	Limit	60-148	08/21/2016 2:09 PM	Container-01 of 01
Surr: Toluene-d8	97.7	D	5	%Rec	Limit	60-132	08/21/2016 2:09 PM	Container-01 of 01

NOTES:
Results may be biased low due to sample not being collected according to 5035A low level specifications.

Analytical Method: D2216 : Analyst: MM

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Percent Moisture	16.3		1	wt%	08/19/2016 3:49 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
c = Calibration acceptability criteria exceeded for this analyte.Value estimated
H = Received/analyzed outside of analytical holding time
J = Estimated value - below calibration range
M-, M+ = Matrix Spike recovery below / above control limit
N = Indicates presumptive evidence of compound
P = Duplicate RPD outside of control limit
r = Reporting limit below calibration range. Value estimated.
S = Recovery outside of control limits for this analyte
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method
Date Reported :

Caitlin Panzarella
Project Manager : Caitlin Panzarella

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NYSDOH ID#10478 www.pacelabs.com

LABORATORY RESULTS

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Pace Analytical Services Inc.
2190 Technology Drive
Schenectady, NY 12308
Attn To : Nicholas Nicholas
Collected : 8/11/2016
Received : 8/17/2016 9:45:00 AM AT21315
Collected By CLIENT

Lab No. : 1608G07-013
Client Sample ID: DUP-X

Sample Information:
Type : Soil

Origin:

Analytical Method: SW8015D : Prep Method: SW3545A Prep Date: 8/18/2016 12:57:24 PM Analyst: JB

Parameter(s)	Results	Qualifier	D.F.	Units			Analyzed:	Container:
Diesel Range Organics C10-C28	< 8.6		1	mg/Kg-dry			08/22/2016 4:11 PM	Container-01 of 01
Surr: 1,4-Dichlorobenzene-d4	61.6		1	%Rec	Limit	16-113	08/22/2016 4:11 PM	Container-01 of 01

NOTES:
C10-C28 quantified with Diesel Fuel #2.

4

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
c = Calibration acceptability criteria exceeded for this analyte.Value estimated
H = Received/analyzed outside of analytical holding time
J = Estimated value - below calibration range
M-, M+ = Matrix Spike recovery below / above control limit
N = Indicates presumptive evidence of compound
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S = Recovery outside of control limits for this analyte
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method
Date Reported :

Caitlin Panzarella
Project Manager : Caitlin Panzarella

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Pace Analytical Services Inc.
2190 Technology Drive
Schenectady, NY 12308
Attn To : Nicholas Nicholas
Collected : 8/11/2016
Received : 8/17/2016 9:45:00 AM AT21315
Collected By CLIENT

Lab No. : 1608G07-013
Client Sample ID: DUP-X

Sample Information:
Type : Soil

Origin:

Analytical Method: SW8260C : Prep Method: 5035A-L Analyst: KG

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
1,1,1,2-Tetrachloroethane	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
1,1,1-Trichloroethane	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
1,1,2,2-Tetrachloroethane	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
1,1,2-Trichloroethane	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
1,1-Dichloroethane	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
1,1-Dichloroethene	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
1,1-Dichloropropene	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
1,2,3-Trichlorobenzene	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
1,2,3-Trichloropropane	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
1,2,4-Trichlorobenzene	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
1,2,4-Trimethylbenzene	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
1,2-Dibromo-3-chloropropane	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
1,2-Dibromoethane	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
1,2-Dichlorobenzene	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
1,2-Dichloroethane	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
1,2-Dichloropropane	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
1,3,5-Trimethylbenzene/P-ethyltoluene	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
1,3-Dichlorobenzene	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
1,3-Dichloropropane	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
1,4-Dichlorobenzene	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
2,2-Dichloropropane	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
2-Butanone	30	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
2-Chloroethylvinyl ether	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
2-Chlorotoluene/4-Chlorotoluene	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
2-Hexanone	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
4-Isopropyltoluene	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
4-Methyl-2-pentanone	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
Acetone	< 64	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
Benzene	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
c = Calibration acceptability criteria exceeded for this analyte.Value estimated
H = Received/analyzed outside of analytical holding time
J = Estimated value - below calibration range
M-, M+ = Matrix Spike recovery below / above control limit
N = Indicates presumptive evidence of compound
P = Duplicate RPD outside of control limit
r = Reporting limit below calibration range. Value estimated.
S = Recovery outside of control limits for this analyte
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

Date Reported :

Caitlin Panzarella

Project Manager : Caitlin Panzarella

Test results meet the requirements of NELAC unless otherwise noted.

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Pace Analytical
575 Broad Hollow Road , Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

LABORATORY RESULTS

Results are only for the samples and analytes requested.

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the tests requested.

Pace Analytical Services Inc.
2190 Technology Drive
Schenectady, NY 12308
Attn To : Nicholas Nicholas
Collected : 8/11/2016
Received : 8/17/2016 9:45:00 AM AT21315
Collected By CLIENT

Lab No. : 1608G07-013
Client Sample ID: DUP-X

Sample Information:
Type : Soil

Origin:

Analytical Method: SW8260C : Prep Method: 5035A-L Analyst: KG

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Bromobenzene	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
Bromochloromethane	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
Bromodichloromethane	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
Bromoform	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
Bromomethane	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
Carbon disulfide	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
Carbon tetrachloride	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
Chlorobenzene	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
Chloroethane	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
Chloroform	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
Chloromethane	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
cis-1,2-Dichloroethene	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
cis-1,3-Dichloropropene	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
Dibromochloromethane	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
Dibromomethane	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
Dichlorodifluoromethane	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
Ethylbenzene	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
Hexachlorobutadiene	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
Isopropylbenzene	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
m,p-Xylene	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
Methyl tert-butyl ether	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
Methylene chloride	< 64	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
Naphthalene	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
n-Butylbenzene	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
n-Propylbenzene	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
o-Xylene	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
sec-Butylbenzene	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
Styrene	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
tert-Butylbenzene	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01
Tetrachloroethene	< 13	D	5	µg/Kg-dry	08/18/2016 11:33 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
c = Calibration acceptability criteria exceeded for this analyte.Value estimated
H = Received/analyzed outside of analytical holding time
J = Estimated value - below calibration range
M-, M+ = Matrix Spike recovery below / above control limit
N = Indicates presumptive evidence of compound
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r = Reporting limit below calibration range. Value estimated.
S = Recovery outside of control limits for this analyte
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

Date Reported :

Caitlin Panzarella

Project Manager : Caitlin Panzarella

Test results meet the requirements of NELAC unless otherwise noted.

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Pace Analytical
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TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

LABORATORY RESULTS

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Pace Analytical Services Inc.
2190 Technology Drive
Schenectady, NY 12308
Attn To : Nicholas Nicholas
Collected : 8/11/2016
Received : 8/17/2016 9:45:00 AM AT21315
Collected By CLIENT

Lab No. : 1608G07-013
Client Sample ID: DUP-X

Sample Information:
Type : Soil

Origin:

Analytical Method: SW8260C : Prep Method: 5035A-L Analyst: KG

Parameter(s)	Results	Qualifier	D.F.	Units			Analyzed:	Container:
Toluene	< 13	D	5	µg/Kg-dry			08/18/2016 11:33 PM	Container-01 of 01
trans-1,2-Dichloroethene	< 13	D	5	µg/Kg-dry			08/18/2016 11:33 PM	Container-01 of 01
trans-1,3-Dichloropropene	< 13	D	5	µg/Kg-dry			08/18/2016 11:33 PM	Container-01 of 01
Trichloroethene	< 13	D	5	µg/Kg-dry			08/18/2016 11:33 PM	Container-01 of 01
Trichlorofluoromethane	< 13	D	5	µg/Kg-dry			08/18/2016 11:33 PM	Container-01 of 01
Vinyl acetate	< 13	D	5	µg/Kg-dry			08/18/2016 11:33 PM	Container-01 of 01
Vinyl chloride	< 13	D	5	µg/Kg-dry			08/18/2016 11:33 PM	Container-01 of 01
Xylene (total)	< 13	D	5	µg/Kg-dry			08/18/2016 11:33 PM	Container-01 of 01
Surr: 1,2-Dichloroethane-d4	104	D	5	%Rec	Limit	33-145	08/18/2016 11:33 PM	Container-01 of 01
Surr: 4-Bromofluorobenzene	101	D	5	%Rec	Limit	60-148	08/18/2016 11:33 PM	Container-01 of 01
Surr: Toluene-d8	101	D	5	%Rec	Limit	60-132	08/18/2016 11:33 PM	Container-01 of 01

NOTES:
Results may be biased low due to sample not being collected according to 5035A low level specifications.

Analytical Method: D2216 : Analyst: MM

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Percent Moisture	22.1		1	wt%	08/19/2016 3:50 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
c = Calibration acceptability criteria exceeded for this analyte.Value estimated
H = Received/analyzed outside of analytical holding time
J = Estimated value - below calibration range
M-, M+ = Matrix Spike recovery below / above control limit
N = Indicates presumptive evidence of compound
P = Duplicate RPD outside of control limit
r = Reporting limit below calibration range. Value estimated.
S = Recovery outside of control limits for this analyte
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method
Date Reported :

Caitlin Panzarella
Project Manager : Caitlin Panzarella

Test results meet the requirements of NELAC unless otherwise noted.

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PACE ANALYTICAL
575 Broad Hollow Road
Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
Website: www.pacelabs.com

Sample Receipt Checklist

Client Name **PACE-NY** Date and Time Received: **8/17/2016 9:45:00 AM**

Work Order Number: **1608G07** RcptNo: **1** Received by **Paige Doherty**

Completed by: Paige Doherty Reviewed by: Caitlin Panzarella

Completed Date: 8/17/2016 11:38:14 AM Reviewed Date: 8/23/2016 11:08:48 AM

Carrier name: FedEx

Chain of custody present?	Yes	☑	No	☐		
Chain of custody signed when relinquished and received?	Yes	☑	No	☐		
Chain of custody agrees with sample labels?	Yes	☑	No	☐		
Are matrices correctly identified on Chain of custody?	Yes	☑	No	☐		
Is it clear what analyses were requested?	Yes	☑	No	☐		
Custody seals intact on sample bottles?	Yes	☐	No	☐	Not Present	☑
Samples in proper container/bottle?	Yes	☑	No	☐		
Were correct preservatives used and noted?	Yes	☐	No	☑	NA	☐
Preservative added to bottles:						
Sample Condition?	Intact	☑	Broken	☐	Leaking	☐
Sufficient sample volume for indicated test?	Yes	☑	No	☐		
Were container labels complete (ID, Pres, Date)?	Yes	☑	No	☐		
All samples received within holding time?	Yes	☑	No	☐		
Was an attempt made to cool the samples?	Yes	☑	No	☐	NA	☐
All samples received at a temp. of > 0° C to 6.0° C?	Yes	☑	No	☐	NA	☐
Response when temperature is outside of range:						
Sample Temp. taken and recorded upon receipt?	Yes	☑	No	☐	To	0.3 °
Water - Were bubbles absent in VOC vials?	Yes	☐	No	☐	No Vials	☑
Water - Was there Chlorine Present?	Yes	☐	No	☐	NA	☑
Water - pH acceptable upon receipt?	Yes	☐	No	☐	No Water	☑
Are Samples considered acceptable?	Yes	☑	No	☐		
Custody Seals present?	Yes	☑	No	☐		
Airbill or Sticker?	Air Bil	☑	Sticker	☐	Not Present	☐
Airbill No:	6903 0826 6540					

Case Number: SDG: PACE-NY507 SAS:

Any No response should be detailed in the comments section below, if applicable.

Client Contacted? ☐ Yes ☐ No ☑ NA Person Contacted:

Contact Mode: ☐ Phone: ☐ Fax: ☐ Email: ☐ In Person:

Client Instructions:

Date Contacted: Contacted By:

Regarding:

Comments:

5035A sampling method for VOCs not followed. Sample received in 4 oz jar.

CorrectiveAction:

4

Pace Analytical
575 Broad Hollow Road , Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

WorkOrder :
1608G07

Certifications

STATE	CERTIFICATION #
NEW YORK	10478
NEW JERSEY	NY158
CONNECTICUT	PH-0435
MARYLAND	208
MASSACHUSETTS	M-NY026
NEW HAMPSHIRE	2987
RHODE ISLAND	LAO00340
PENNSYLVANIA	68-00350

PACE-LI

Nale-NY507

CHAIN OF CUSTODY RECORD

PAGE 1 OF 2

Pace Analytical Services, Inc.
2190 Technology Drive, Schenectady, NY 12308
Telephone (518) 346-4592 Fax (518) 381-6055
www.pacelabs.com

LRF # 16080332
(LAB USE ONLY)

DISPOSAL REQUIREMENTS: (To be filled in by Client)
- ○ RETURN TO CLIENT
- ● DISPOSAL BY RECEIVING LAB
- ○ ARCHIVAL BY RECEIVING LAB

Additional charges incurred for disposal (if hazardous) or archival. Call for details.

CLIENT (REPORTS TO BE SENT TO): PACE	PROJECT#/PROJECT NAME: 16080332
PROJECT MANAGER: Nick Nicholas	LOCATION (CITY/STATE) ADDRESS: NY
Project: 1368.001	REQUIRED TURN AROUND TIME: 8/23/2016
Notes: PRESERVATION NOT VARIFIED AT SCHENECTADY LAB.	NAME OF COURIER (IF USED):

ENTER ANALYSIS AND METHOD NUMBER REQUESTED

PRESERVATIVE KEY: 0 - ICE; 1 - HCL; 2 - HNO3; 3 - H2SO4; 4 - NaOH; 5 - Zn. Acetate; 6 - MeOH; 7 - NaHSO4; 8 - Other (Na2SO3)

ELECTRONIC RESULTS: nicholas.nicholas@pacelabs.com; Nicole.Johnson@pacelabs.com

SAMPLE ID	DATE	TIME	MATRIX	GRAB/ COMP	LAB SAMPLE ID (LAB USE ONLY)	NUMBER OF CONTAINERS	VOCs E8260C	TPH-DRO E8015						REMARKS:
BPB-01	8/11/16	9:50	S	GRAB	AT21303	2	X	X						16080-007-001
BPB-01	8/11/16	10:05	S	GRAB	AT21304	6	X	X						MS/MSD -002
BPB-02	8/11/16	10:10	S	GRAB	AT21305	2	X	X						-003
BPB-03	8/11/16	10:30	S	GRAB	AT21306	2	X	X						-004
BPB-03	8/11/16	10:50	S	GRAB	AT21307	2	X	X						-005
BPB-04	8/11/16	11:15	S	GRAB	AT21308	2	X	X						-006
BPB-05	8/11/16	11:50	S	GRAB	AT21309	2	X	X						-007
BPB-06	8/11/16	12:40	S	GRAB	AT21310	2	X	X						-008
BPB-07	8/11/16	13:25	S	GRAB	AT21311	2	X	X						-009
BPB-08	8/11/16	14:30	S	GRAB	AT21312	2	X	X						-010

AMBIENT OR CHILLED: TEMP: 0.3 | COC TAPE: (Y) N | PROPERLY PRESERVED: (Y) N | OTHER NOTES: Analytical Report [LEVEL-2] EDD: EQUIS-DEC-DE

RECEIVED BROKEN OR LEAKING: Y (N) | COC DISCREPANCIES: Y (N) | RECVD W/I HOLDING TIMES: (Y) N

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
SIGNATURE: [signature]	SIGNATURE: Fedex	SIGNATURE: Fedex	SIGNATURE: [signature]	SIGNATURE: [signature]	SIGNATURE: [signature]
PRINTED NAME: Daniel Bubdah	PRINTED NAME:	PRINTED NAME:	PRINTED NAME: Erich Johnson	PRINTED NAME: Erich Johnson	PRINTED NAME: V.D
COMPANY: PACE	COMPANY:	COMPANY:	COMPANY: PACE	COMPANY: Nale-LI	COMPANY: Nale-LI
DATE/TIME: 8/15/16 1600	DATE/TIME:	DATE/TIME:	DATE/TIME: 8/17 9:45	DATE/TIME: 8/17/16 9:45	DATE/TIME: 8/17/16 945

S:\LOGIN\MDLCOCS

6903 0826 6540

PACE-LI

MALE-NY 507

CHAIN OF CUSTODY RECORD

Pace Analytical Services, Inc.
2190 Technology Drive, Schenectady, NY 12308
Telephone (518) 346-4592 Fax (518) 381-6055
www.pacelabs.com

LRF # 16080332
(LAB USE ONLY)

DISPOSAL REQUIREMENTS: (To be filled in by Client)
- ○ RETURN TO CLIENT
- ● DISPOSAL BY RECEIVING LAB
- ○ ARCHIVAL BY RECEIVING LAB

Additional charges incurred for disposal (if hazardous) or archival.
Call for details.

CLIENT (REPORTS TO BE SENT TO): PACE	PROJECT#/PROJECT NAME: 16080332
PROJECT MANAGER: Nick Nicholas	LOCATION (CITY/STATE) ADDRESS: NY
Project: 1368.001	REQUIRED TURN AROUND TIME: 8/23/2016
Notes: PRESERVATION NOT VARIFIED AT SCHENECTADY LAB.	NAME OF COURIER (IF USED):

ENTER ANALYSIS AND METHOD NUMBER REQUESTED

PRESERVATIVE KEY: 0 - ICE; 1 - HCL; 2 - HNO3; 3 - H2SO4; 4 - NaOH; 5 - Zn. Acetate; 6 - MeOH; 7 - NaHSO4; 8 - Other (Na2SO3)

ELECTRONIC RESULTS: nicholas.nicholas@pacelabs.com; Nicole.Johnson@pacelabs.com

SAMPLE ID	DATE	TIME	MATRIX	GRAB/ COMP	LAB SAMPLE ID (LAB USE ONLY)	NUMBER OF CONTAINERS	VOCs E8260C	TPH-DRO E8015	REMARKS
BPB-09	8/11/16	15:20	S	GRAB	AT21313	2	X	X	16080607 -011
BPB-10	8/11/16	15:50	S	GRAB	AT21314	2	X	X	-012
DUP-X	8/11/16		S	GRAB	AT21315	2	X	X	-013

PRESERVATIVE CODE: BOTTLE TYPE: BOTTLE SIZE:

AMBIENT OR CHILLED: TEMP: 0.3 | COC TAPE: (Y) N | PROPERLY PRESERVED: (Y) N | OTHER NOTES: Analytical Report [LEVEL-2] EDD: EQUIS-DEC-DE

RECEIVED BROKEN OR LEAKING: Y (N) | COC DISCREPANCIES: Y (N) | RECVD W/I HOLDING TIMES: (Y) N

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
SIGNATURE: [signature]	SIGNATURE: Fedex	SIGNATURE: Fedex	SIGNATURE: [signature]	SIGNATURE: [signature]	SIGNATURE: [signature]
PRINTED NAME: Daniel Bubniak	PRINTED NAME:	PRINTED NAME:	PRINTED NAME: Erick Johnson	PRINTED NAME: Erick Johnson	PRINTED NAME: D.D
COMPANY: Pace	COMPANY:	COMPANY:	COMPANY: PACE	COMPANY: MALE-LI	COMPANY: MALE-LI
DATE/TIME: 8/15/16 1600	DATE/TIME:	DATE/TIME:	DATE/TIME: 8/17 9:45	DATE/TIME: 8/17/16 9:45	DATE/TIME: 8/17/16 9:45

S:\LOGIN\MDLCOCS

6903 0826 6540

Pace Analytical®
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

<16080332P1>

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

160803321

of 2

1082317

Section A Required Client Information:

Company: B&L
Address: 10 AIRLINE DRIVE SUITE 200
ALBANY NY 12205
Email To: rmccormick@barton-loguidice.com
Phone: (518) 218-1801 Fax: (518) 218-1805
Requested Due Date/TAT: STANDARD

Section B Required Project Information:

Report To: ANDY BARBER
Copy To: NATHAN SHAFFER
ROSEMARY MCCORMICK
Purchase Order No.:
Project Name: ALCO
Project Number: 1368.001.001

Section C Invoice Information:

Attention: ACCOUNTS PAYABLE
Company Name: B&L
Address: 443 ELECTRONICS PKWY LIVERPOOL
Pace Quote Reference:
Pace Project Manager: NICHOLAS NICHOLAS
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☒ OTHER NYSDEC

Site Location STATE: NY

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Matrix Codes — MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N: 8260 VOCs by	DRO	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	TSPB-01	SL	G			8/11/16	9:50		2	X								X	X		AT21303
2	BPR-01	SL	G				10:05		6	X								X	X		AT21304
3	BPR-02	SL	G				10:10		2	X								X	X		AT21305
4	BPB-03	SL	G				10:30		2	X								X	X		AT21306
5	BPB-03	SL	G				10:50		2	X								X	X		AT21307
6	~~TRIPLICATE~~ BPB-04	SL	G				11:15		2	X								X	X		AT21308
7	BPB-05	SL	G				11:50		2	X								X	X		AT21309
8	BPB-06	SL	G				12:40		2	X								X	X		AT21310
9	BPR-07	SL	G				13:25		2	X								X	X		AT21311
10	BPB-08	SL	G				14:50		2	X								X	X		AT21312
11	BPB-09	SL	G			↓	15:20		2	X								X	X		AT21313
12	BPP-10	SL	G			8/11/16	15:50		2	X								X	X		AT21314

Requested Analysis Filtered (Y/N)

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Cat B deliverables.		8/12/16	10:40		8/12/16	10:40	2-0	Y	N	Y
	Fed Ex	8/16			8/17	8:45	02	Y	Y	Y

ORIGINAL

6903 0826 6540

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: ROSEMARY MCCORMICK
SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 8/11/16

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

Pace Analytical®
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately. <16080332P2>

160803322

of 2

L882324

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: B+L	Report To: ANDY BARBER	Attention: ACCOUNTS PAYABLE
Address: 10 AIRLINE DRIVE SUITE 200	Copy To: NATHAN SHAFFER	Company Name: B+L
ALBANY NY 12205		Address: 443 ELECTRONICS PKWY LIVERPOOL
Email To: rmccormick@bartonandloguidice.com	Purchase Order No.:	Pace Quote Reference:
Phone: (518)218-7801 Fax: (518)218-7805	Project Name: ALCO	Pace Project Manager: NICHOLAS NICHOLAS
Requested Due Date/TAT: STANDARD	Project Number: 13168.001.001	Pace Profile #:

REGULATORY AGENCY: ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☒ OTHER NYSDEC

Site Location STATE: NY

Section D Required Client Information

Matrix Codes — MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Y/N	Analysis Test ↓: Vols by 8260	VOCs by 8260	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	DUP-X	SL	G			8/11/16	—		2	X									X	X		AT21315
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	B+L	8/12/16	10:40		8/12/16	10:40	2.0	Y	N	Y
	Fed Ex	8/16			8/17	9:45	0.3	Y	Y	Y

ORIGINAL

6903 0826 6540

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: ROSEMARY MCCORMICK

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 8/11/16

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

Sample Condition Upon Receipt

CLIENT NAME: B+L

PROJECT: ALCO

COURIER: FedEx ☐ UPS ☐ Client ☒ Pace ☐ Other ☐

TRACKING # N/A **CUSTODY SEAL PRESENT:** Yes ☐ No ☒ **INTACT:** Yes ☐ No ☐ N/A ☒

PACKING MATERIAL: Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other ☐ **ICE USED:** Wet ☒ Blue ☐ None ☐

THERMOMETER USED: #164 ☒ IR Gun 03 ☐ #160239773 ☐ #160239773-PRB ☐ **COOLER TEMPERATURE (°C):** 2.0

BIOLOGICAL TISSUE IS FROZEN: Yes ☐ No ☐ N/A ☒

COMMENTS: **Temperature is Acceptable?** ☒Yes ☐No

Chain of Custody Present:	☒Yes	☐No		1.
Chain of Custody Filled Out:	☒Yes	☐No		2.
Chain of Custody Relinquished:	☒Yes	☐No		3.
Sampler Name / Signature on COC:	☒Yes	☐No		4.
Samples Arrived within Hold Time:	☒Yes	☐No		5.
Short Hold Time Analysis (<72hr):	☐Yes	☒No		6.
Rush Turn Around Time Requested:	☐Yes	☒No		7.
Sufficient Volume:	☒Yes	☐No		8.
Correct Containers Used:	☒Yes	☐No		9.
- Pace Containers Used:	☒Yes	☐No		
Containers Intact:	☒Yes	☐No		10.
Filtered volume received for Dissolved tests	☐Yes	☐No	☒N/A	11.
Sample Labels match COC: - Includes date/time/ID/Analysis	☐Yes	☒No		12. Sample ID's abbreviated on COC. no MS/MSD indicated on COC, we received MS/MSD for sample ID BFB-01.
All containers needing preservation have been checked:	☐Yes	☐No	☒N/A	13.
All containers needing preservation are in compliance with EPA recommendation: - Exceptions that are not checked: TOC, VOA, Subcontract Analyses	☐Yes	☐No	☒N/A	Initial when completed: N/A Lot # of added preservative: N/A
Headspace in VOA Vials (>6mm):	☐Yes	☐No	☒N/A	14.
Trip Blank Present:	☐Yes	☐No	☒N/A	15.
Trip Blank Custody Seals Present:	☐Yes	☐No	☒N/A	
Pace Trip Blank Lot #: N/A				

Sample Receipt form filled in: _____

Line-Out (Includes Copying Shipping Documents and verifying sample pH): DB 8/15/16

Log In (Includes notifying PM of any discrepacies and documenting in LIMS): DB 8/15/16

Labeling (Includes Scanning Bottles and entering LAB IDs into pH logbook): DB 8/15/16