PHASE II ENVIRONMENTAL SITE ASSESSMENT
FORMER NAVAL FACILITY BUILDING COMPLEX #85 AND WULLENWEBER CIRCULATORY DISOSED ANTENNA ARRAY
COREA VILLAGE IN GOULDSBORO, MAINE

Prepared by:
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June 2016

Prepared for:
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395 State Street
Ellsworth, Maine 04605

CAMPBELL
ENVIRONMENTAL GROUP

June 3, 2016

Mr. Thomas Martin
Hancock County Planning Commission
395 State Street
Ellsworth, Maine 04605

Re: Phase II Environmental Site Assessment
Former Naval Facility Building Complex #85 and Wullenweber Circulatory Disposed Antenna Array, Corea Village in Gouldsboro, Maine

Dear Mr. Martin,

Campbell Environmental Group, Inc., (CEG) prepared this report for the Hancock County Planning Commission (HCPC) to document the results of the Phase II Environmental Site Assessment (ESA) conducted at the former Naval Facility Building Complex #85 and Wullenweber Circulatory Disposed Antenna Array (Site), located off Corea Road/Route 194, in the Village of Corea, in Gouldsboro, Maine. The Site consists of four lots designated by the town of Gouldsboro tax assessor's office as Map 42, lots 29, 30, and 31, and Map 48, Lot 10. The lots are also designated as Lots 1 through 4 on the Boundary Survey for Division of Land of Acadia Capital Corporation, State Route 195, Gouldsboro, by Edward J. Wainwright (PLS #1080) and dated May 10, 2010 and registered with the Hancock County Registry of Deeds under File 39, Page 173. According to the Gouldsboro tax assessor, there are currently no designated street addresses for these parcels.

The purpose of this report is to provide HCPC with data regarding environmental conditions at the Site. This work was conducted as part of HCPCs United States Environmental Protection Agency (USEPA) Brownfield contract.

CEG would like to acknowledge that Maine Department of Environmental Protection personnel contributed significant efforts to completing this work. Special thanks and praise are attributed to John Selleck, Jason Langley, Paul Nichols, and Ben Guidi for all of their efforts. Without their help this investigation would not have been as successful or informative.

If you have any questions or comments, please do not hesitate to contact us. CEG appreciates working with you on this project.

Sincerely,

STATE OF MAINE
RICHARD B. CAMPBELL
NO. 383
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Danica Wallace
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Enclosure

Table of Contents

1.0 INTRODUCTION 1
1.1 Purpose 1
2.0 BACKGROUND 1
2.1 Site Description 1
2.2 Site Geology and Hydrogeology 3
2.3 Current Use of the Property 4
2.4 Historical Use Information on the Property 5
2.5 Adjacent Property Land Use 5
2.6 Recognized Environmental Conditions (RECs) 6
3.0 PHASE II ACTIVITIES 7
3.1 Scope of Assessment 7
3.1.1 Chemical Testing Plan 8
3.1.2 Deviations From Work Plan 9
3.2 Field Exploration Methods, Sampling and Chemical Analyses 9
3.2.1 Field Screening Samples 9
3.2.2 Laboratory Analyzed Samples Collected 10
3.2.3 Test Pitting and Shallow Soil Sampling 10
3.2.4 Test Pitting/Underground Storage Tank (UST) Removal 11
3.2.5 Building Material Sampling 13
3.2.6 Surface Water Sampling 15
3.2.7 Air Sampling 15
3.2.8 Survey 16
4.0 EVALUATION AND PRESENTATION OF RESULTS 16
4.1 Data Quality Assessment Summary 16
4.1.1 Evaluation of Sampling Procedures 16
4.1.2 Quality Assurance Quality Control (QA/QC) Samples 16
4.1.2.1 Absolute Resource Associates 17
4.1.2.2 Alpha Analytical 18
4.1.2.3 Katahdin Analytical Services 18
4.1.2.4 Phoenix Environmental Laboratories 18
4.1.2.5 Pacific Agricultural Laboratory 19
4.2 Analytical Data 19
4.2.1 Soil Screening Results 19
4.2.1.1 Soil Screening for VOCs and Metals 19
4.2.1.2 VOC and Fuel Oil Shake Test Screening During UST Test Pitting 20
4.2.1.3 Lead Paint Screening Using an XRF Meter 20
4.2.1.4 Mercury Vapor Screening 20
4.2.2 Sampling Results for On-site Solids 21
4.2.3 Surface Water Sampling Results 22
4.2.4 Air Sampling Results 22

5.0 CONCEPTUAL MODEL 22
5.1 Site Geology and Hydrogeology 22
5.2 Contaminants of Concern 22
5.3 Areas of Environmental Concern and Contaminant Assessment 23
5.3.1 AOC-1, Wullenweber CDAA Treated with Pesticides/Herbicides 24
5.3.2 AOC-2, Suspected Mercury Vapor and Impacts to Building Materials from Mercury Vapor 24
5.3.3 AOC-3, Potential Impacts from UST Located Southwest of Building #85 25
5.3.4 AOC-4, the Pesticide Mixing Area West of Building #103 26
5.3.5 AOC 5, Floor Drain Located in Building #156 26
5.3.6 AOC-6, Re-evaluate the condition of ACM in Building #85 26
5.3.7 AOC-7, Verify Lead Paint on the Exterior of Building #85 26
5.3.8 AOC-8, Potential PCB Containing Building Material in Building #85 26
5.4 Potential Receptors 28
5.5 Contaminant Exposure Routes and Fate & Transport 28
5.5.1 Metals 28
5.5.2 PCBs 29
5.5.3 Asbestos Containing Materials 30
6.0 CONCLUSIONS AND RECOMMENDATIONS 30
6.1 AOC-1, Wullenweber CDAA Treated with Pesticides/Herbicides 31
6.2 AOC-2, Suspected Mercury Vapor and Impacts to Building Materials from Mercury Vapor 31
6.3 AOC-3, Potential Impacts from UST Located Southwest of Building #85 31
6.4 AOC-4, the Pesticide Mixing Area West of Building #103 32
6.5 AOC 5, Floor Drain Located in Building #156 32
6.6 AOC-6, Re-evaluate the Condition of ACM in Building #85 32
6.7 AOC-7, Verify Lead Paint on the Exterior of Building #85 32
6.8 AOC-8, Potential PCB Containing Building Material in Building #85 32
6.9 Other 34

APPENDICES

Appendix A - Figures
Figure 1 - Locus Map
Figure 2 – Sample Locations and Laboratory Results
Figure 3 – Sample Locations and Laboratory Results
Appendix B – Field Data
Appendix C – Laboratory Analytical Tables
Table 1 – Soil and Building Material Sample Results Compared with MEDEP Hazardous Substance RAGs 2016
Appendix D - Laboratory Reports and Riverside Lane Asbestos and Lead Paint Report

EXECUTIVE SUMMARY

Campbell Environmental Group, Inc. (CEG) was retained by the Hancock County Planning Commission (HCPC) to perform a Phase II Environmental Site Assessment (ESA) at the Former Naval Facility Building Complex #85, located off Corea Road (Route 195), in the Village of Corea, in the Town of Gouldsboro, Maine, (Subject Property). The purpose of this assessment was to further investigate potential environmental impacts associated with the recognized environmental conditions (RECs) identified in the Phase I ESA report, titled *Phase I Environmental Site Assessment, Building 85 Complex and Wullenweber Circulatory Disposed Antenna Array (CDAA), Corea, Maine,* dated July 23, 2015. This Phase II ESA was conducted to identify potential constituents of concern in soil and groundwater at the Site, evaluate the nature and distribution of those constituents, and determine if the site conditions pose a threat to human health and or the environment.

The Subject Property, which has recently been called the Gouldsboro Corea Business Park, consists of four lots designated by the Town of Gouldsboro tax assessor's office as Map 42, Lots 29, 30, 31, and 32. The Subject Property is a small subset of what was originally part of the Naval Security Group Activity, Winter Harbor (NSGAWH). The Subject Property lots are also designated as Lots 1 through 3 with the center of the lots having no defined lot name on the Boundary Survey for Division of Land of Acadia Capital Corporation, State Route 195, Gouldsboro, by Edward J. Wainwright (PLS #1080) and dated May 10, 2010

These lots form a circle that is encompassed by the former Wullenweber CDAA which was a radio direction-finder. The main building, which served as the operations center for this portion of the facility, is Building #85. Building #85 is surrounded by additional smaller buildings labeled as a septic tank building (#229), maintenance building (#217), maintenance building (#156), generator building (#103), and an electronics storage building (#226).

The groundwater quality is poor and is not potable due to naturally occurring gross alpha radioactivity. No public water or sewer is available. The Subject Property is located near a heath unique to North America and therefore listed by the Maine Critical Areas Program.

The Wullenweber CDAA was constructed in the 1960's. The Wullenweber CDAA is a large circular antenna array used for radio direction finding. It was used by the military to triangulate radio signals for radio navigation, intelligence gathering, and search and rescue. The Subject Property's Wullenweber CDAA was composed of High Band Antenna System and a Low Band Antenna system. The NSGA ceased operations at Corea in 1998. The Wullenweber CDAA was dismantled in August 2001 and a majority of the 546 acres were transferred to the U.S. Fish and Wildlife Service in June, 2002.

The Phase I ESA, identified 8 recognized environmental conditions (RECs) at the Subject Property. These areas include soil, surface water, ambient air, and building materials.

REC-1: Wullenweber CDAA grounds were treated with pesticides/herbicides, wood preservatives, and solvents;
REC-2; Suspected mercury from broken fluorescent bulbs and impacts to building materials from mercury vapor condensate;
REC-3; Potential impacts from an 2,500 gallon fuel oil underground storage tank (UST) located southwest of Building #85 and a potential 8,000 gallon diesel fuel UST located directly west of the fuel oil UST;
REC-4; Potential impacts from the pesticide mixing area west of Building #103;
REC-5; Impacts to the floor drain located in Building #156 and its discharge location;
REC-6; Re-evaluate the condition of asbestos containing materials (ACM) in Building #85;

REC-7; Verify lead paint on the exterior of Building #85; and
REC-8; Potential poly-chlorinated biphenyls (PCBs) containing building material in Building #85.

CEG, with the assistance of the Maine Department of Environmental Protection (MEDEP) personnel, conducted the following scope of work to investigate the identified RECs:

- Collected building material samples from Building #85 for the analyses of lead, mercury, and PCBs;
- Screened building surfaces and ambient air for mercury using a mercury vapor analyzer;
- Screened building surfaces for lead using an X-Ray Fluorescence (XRF) meter;
- Collected building material samples for analysis of PCBs;
- Collected one representative sample of broken fluorescent light bulbs for characterization to determine if material is hazardous;
- Collected wipe samples of flooring material below broken fluorescent bulbs to determine impacts from condensed mercury to porous materials;
- Collected carpet below broken fluorescent bulbs as confirmation samples to the wipe samples;
- Collected a sorbent tube for the analysis of mercury vapor in ambient air within Building #85;
- Investigated the floor drain piping in Building # 156 to determine the discharge point;
- Sampled sludge from the floor drain in Building # 156 for contaminants of concern;
- Conducted test pitting to explore subsurface conditions in the vicinity of the UST and potential UST and the Wullenweber CDAA;
- Screened soil samples for relevant contaminants of concern using a photoionization detector and headspace technique for volatile organic compounds (VOCs), petroleum hydrocarbons using oleophilic dye tests, and for metals using an XRF detector;
- Collected soil samples based on soil screening and analyze for contaminants of concern as identified in each REC;
- Collected a soil sample from the herbicide pesticide mixing area and the Wullenweber CDAA based on proximity to suspected contaminants;
- Collected a surface water sample from the drainage ditch around the perimeter of the Wullenweber CDAA and analyzed for specific herbicides and pesticides of concern; and
- Subcontracted an asbestos investigation.

The following outlines CEG's recommendations for those areas of concern (AOCs).

REC-1, Wullenweber CDAA treated with pesticides/herbicides (AOC-1)

No pesticide or herbicide compounds were detected in the surface soils sampled (SS-1 and SS-2) within the treated area. Although arsenic exceeded the Hazardous Remedial Action Guideline (RAG) in TP-1 and TP-2 subsurface soils, arsenic is a common metal that occurs naturally in Maine and is therefore typically compared to RAG Background levels. The arsenic concentrations in TP-1 and TP-2 samples are below the background RAG. CEG does not recommend any further investigation or remediation is warranted for AOC-1.

REC-2, Suspected mercury vapor and impacts to building materials from mercury vapor (AOC-2)

A variety of sampled media were collected to determine potential impacts of the broken fluorescent bulbs. Initially, mercury vapor was screened by the MEDEP using a Lumex meter. A concentration of 700 nanograms per cubic meter (ng/m^3), equal to 0.7 micrograms per cubic

meter (ug/m^3) was detected within the east central area of Building #85. This concentration was well below published worker safety concentrations. Subsequent building material samples (BM-85 Carpet and 85 Carpet Wipe) and the ambient air sample (85-Air) were collected in this same location. The air sample was below the reporting limit of 5 micrograms per cubic meter (ug/m^3) which is also below the corresponding National Institute of Occupational Safety and Health (NIOSH) threshold criteria for skin (50 ug/m^3) and respiratory protection (500 ug/m^3). The BM-85 Carpet sample was mistakenly analyzed for PCBs rather than mercury. The corresponding wipe sample analyzed for mercury was below the reporting limit of 0.04 ug/wipe.

The purpose of the air monitoring was for the protection of those exposed while collecting future samples as well as future construction workers contracted to perform any clean-up activities or renovations within the building. CEG anticipates that the fluorescent bulbs will be removed and properly disposed by workers trained and certified in hazardous waste operations prior to any future workers that would be employed in jobs within the building. CEG recommends that another air sample be collected prior to the building being occupied or prior to renovations or any cleanup activities. Mercury levels could vary depending on the temperature of ambient air or the particular location where the sample is collected.

REC-3, Potential impacts from UST located southwest of Building #85 (AOC-3)

Screening results of 16 soil samples and laboratory confirmation of three samples analyzed for extractable petroleum hydrocarbons (EPH) were all below corresponding detection limits in the test pit completed to assess the 2,500 gallon fuel oil UST. No evidence of the 8,000 gallon diesel tank was observed during the test pitting for that tank. It was concluded that the 8,000 gallon tank had been removed. No evidence of a release from either of the USTs was observed during the test pitting or as a result of the analytical work. CEG does not believe any further investigation or remediation is warranted for AOC-3.

REC-4, Pesticide mixing area west of Building #103 (AOC-4)

Two soil samples along the down-gradient slope of the mixing area were collected and analyzed for pesticides and herbicides. No compounds were detected above the reporting limit. CEG does not believe any further investigation or remediation is warranted for AOC-4.

REC-5, Floor Drain Located in Building #156 (AOC-5)

The proposed floor drain dye tracer test was inconclusive. The discharge location was not discovered. Sludge within the floor drain was analyzed for VOCs, semi-volatile organic compounds (SVOCs), and Resource Conservation and Recovery Act (RCRA) metals. No VOCs or SVOCs were detected above the reporting limit. Metals were detected and arsenic, cadmium and lead exceeded a Hazardous RAG. CEG recommends any remaining residue within the drain be removed and properly disposed for the purpose of reducing any further impacts to the unknown discharge location. If it is determined the floor drain is not necessary for future use of the building, CEG recommends plugging the drain. Plugging the drain would further eliminate continued migration of contaminates via water flow to the discharge location and reduce the potential for human exposure.

REC-6, Re-evaluate the condition of ACM in Building #85 (AOC-6)

Based on testing results conducted by Riverside Lane, asbestos containing material (ACM) is present in the blue floor tile and corresponding mastic in Building #85. Based on the current condition of the floor tile, CEG recommends the tile be properly removed prior to the building being re-used for the health of those occupying the space. In the event the building is to be

demolished, the removal of all ACM is required by State regulations per 06-096 Department of Environmental Protection, Maine Solid Waste Management Rules, Chapter 425, Asbestos Management Regulations, Revised: February 2011.

REC-7, Verify Lead Paint on the Exterior of Building #85 (AOC-7)

Based on the lead paint screening, the structures painted in “safety yellow” had elevated levels of lead. Also, sample BM-15 which consisted of a mixture of sediment accumulation between the concrete wall and pavement and paint chips from below an exterior yellow painted handrail, had a lead concentration of 550 milligram per kilogram (mg/kg). This concentration exceeds the Haz Park User and Residential RAG scenarios. CEG recommends the yellow painted surfaces and small amount of soil and paint chip impacted area represented by BM-15 be remediated to eliminate exposure to humans as well as prevent the paint chips from migrating to other sensitive receptors via surface flow.

REC-8, Potential PCB Containing Building Material in Building #85 (AOC-8)

A variety of caulk material, roof material, and the interior transformer pad had PCB concentrations exceeding a corresponding regulatory cleanup level. In the current condition, the caulk, roof material, and concrete pad sampled pose a health risk. Some of the building materials are in poor condition are likely to generate PCB-impacted dust. Renovations of PCB-containing building material, such as window or door removal and replacement, should be conducted by trained workers who use safe work practices to minimize dust, prevent exposure, and contain contaminated waste.

The highest PCB concentrations were detected in caulk samples BM-2 and BM-3 (65,000 mg/kg and 69,000 mg/kg, respectively) located on the north side of Building #85. The current condition of the material indicates little potential exposure. However, CEG does recommend a more thorough investigation of this type of caulk be conducted throughout Building #85 to ensure all caulk containing PCB concentrations be identified. CEG recommends all impacted caulk exceeding 50 mg/kg and building materials be removed to prevent future exposure to human health and the environment. This could be completed if the building is to be demolished or when it is to be renovated for future redevelopment.

The PCB-impacted caulk samples that exceed 50 mg/kg are considered by the Toxic Substances Control Act (TSCA) to be PCB bulk product waste and should be transported to a licensed disposal facility. PCB-impacted caulk materials that are equal to or below 50 mg/kg and originated and were installed prior to October 1, 1984 are considered an excluded PCB product. Excluded PCB products are not regulated by TSCA and may remain in place. MEDEP’s PCB regulations address soil and groundwater that are impacted by unauthorized PCB spills. Caulk or other building materials impacted by PCBs are not specifically regulated by MEDEP. Therefore, according to MEDEP, the caulk that is below 50 mg/kg may remain in place. Since MEDEP currently does not allow the PCB bulk product waste (caulk that exceeds 50 mg/kg) to be disposed as non-hazardous waste, it must be managed as a hazardous waste. This requires out of state transportation and disposal to a licensed hazardous waste landfill or other approved disposal method. TSCA guidelines allow the material attached to the PCB bulk product waste to also be classified and managed in the same manner. This material would typically include door and window casings and attached cinderblock or sheet rock wall materials. Once the caulk and or attached materials have been removed, the remaining building materials surrounding the former caulk should also be tested for PCB impacts as confirmation. If, the material adjacent to the removed PCB bulk product waste is impacted and removed at a later date, the classification of the material would be modified to a PCB remediation waste. PCB remediation waste must be managed according to TSCA requirements.

1.0 INTRODUCTION

This Phase II Environmental Site Assessment (ESA) of the Former Naval facility Building Complex #85 (Site), located off Corea Road, in the Village of Corea, in Gouldsboro, Maine (**Figure 1, Appendix A**), was prepared by Campbell Environmental Group, Inc. (CEG) as part of the Hancock County Planning Commission (HCPC) Hazardous Substance Assessment Grant, awarded by the United States Environmental Protection Agency's (USEPA) Brownfield Program.

On July 23, 2015, CEG completed a Phase I ESA at the Subject Property and identified eight recognized environmental conditions (RECs), presented in **Section 2.6** of this report. On September 18, 2015, CEG completed a Phase II ESA work plan and Site Specific Quality Assurance Project Plan (QAPP) to investigate environmental conditions at the Subject Property. The Phase II ESA work plan was developed based on the results of the Phase I ESA and approved by HCPC, Maine Department of Environmental Protection (MEDEP), and USEPA. Phase II ESA field work was completed by CEG on November 12, 2015, in accordance with relevant MEDEP and USEPA requirements and guidance. This report describes the methods and results of the Phase II ESA.

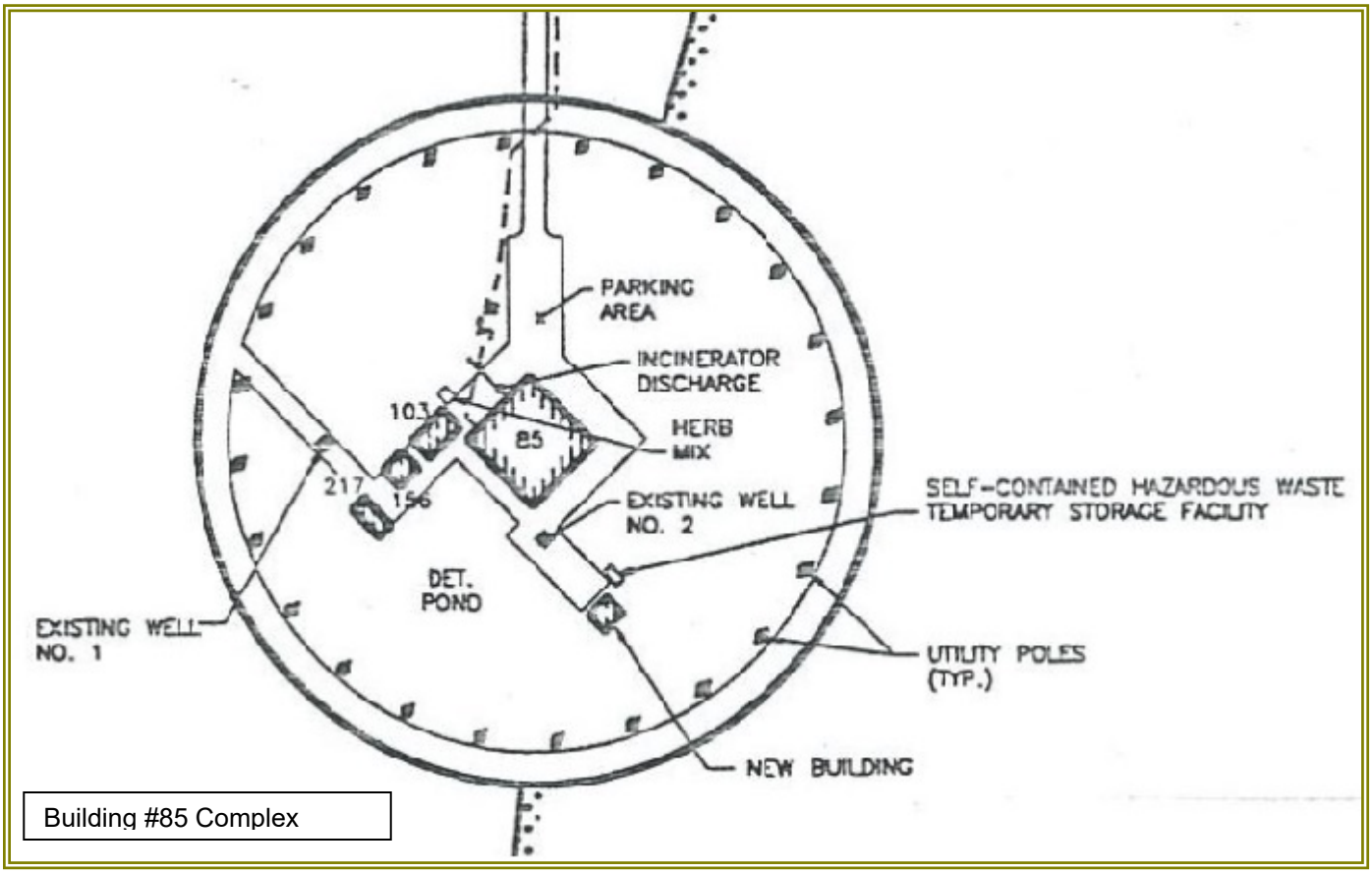
1.1 Purpose

The purpose of this Phase II ESA was to further investigate potential environmental impacts associated with the RECs identified in the Phase I ESA report, titled *Phase I Environmental Site Assessment, Building 85 Complex and Wullenweber Circulatory Disposed Antenna Array, Corea, Maine,* dated July 23, 2015. In particular, this Phase II ESA was conducted to identify potential constituents of concern in the building materials, soil, surface water, and indoor air quality at the Subject Property, evaluate the nature and distribution of these constituents, and determine if the site conditions pose a threat to human health and or the environment.

2.0 BACKGROUND

2.1 Site Description

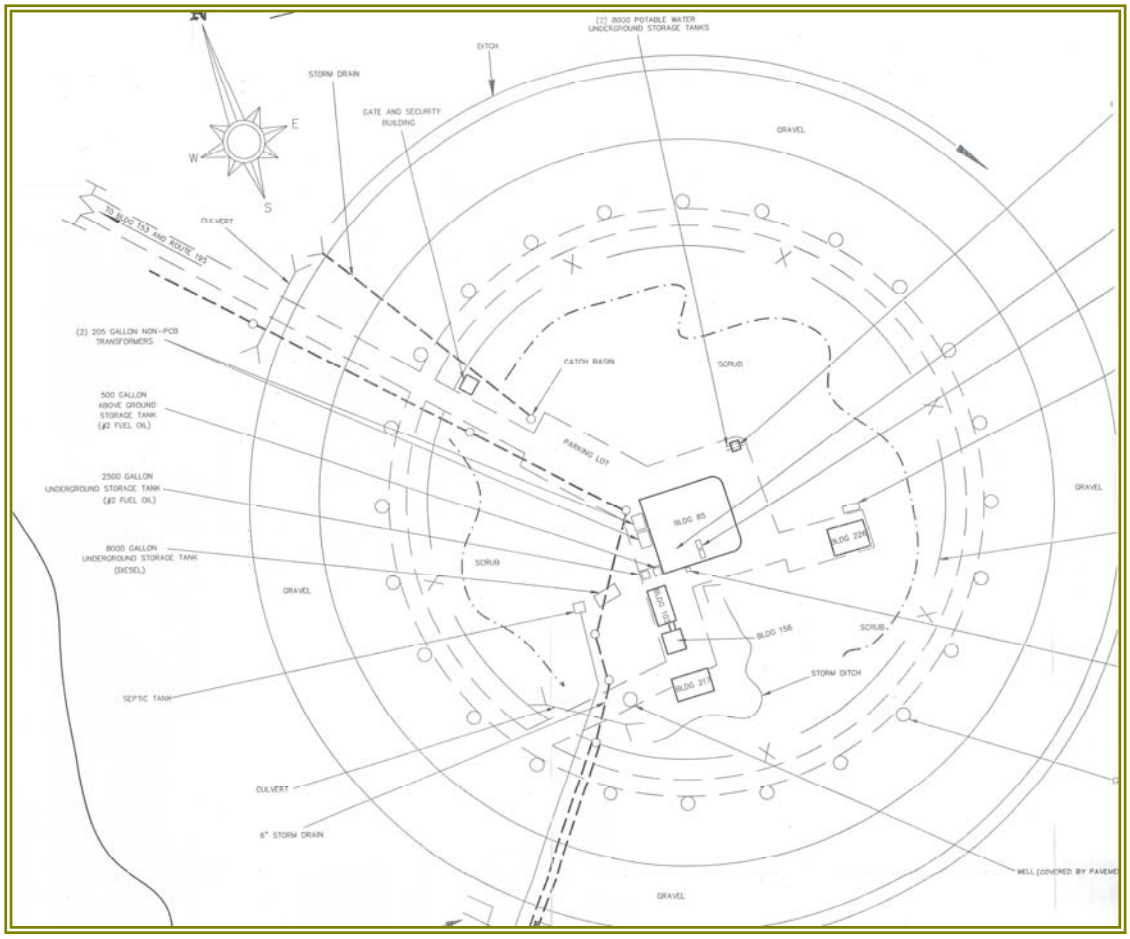
The Subject Property, which has recently been called the Gouldsboro Corea Business Park, consists of four lots designated by the Town of Gouldsboro tax assessor's office as Map 42, Lots 29, 30, 31, and 32. The Subject Property is a small subset of what was originally part of the Naval Security Group Activity, Winter Harbor (NSGAWH). This Naval base consisted of three distinct sites: 1) the main base (100.1 acres) located in Acadia National Park on Big Moose Island; 2) the operations site consisting of a total 451.5 acres in Corea which includes the Subject Property; and 3) the housing area (23 acres) which was located in the town of Winter Harbor. The Subject Property lots are also designated as Lots 1 through 3 with the center of the lots having no defined lot name on the Boundary Survey for Division of Land of Acadia Capital Corporation, State Route 195, Gouldsboro, by Edward J. Wainwright (PLS #1080) and dated May 10, 2010 and registered with the Hancock County Registry of Deeds under File 39, Page 173.



Building #85 Complex

Table 1 Subject Property Lot Designations and Acreage		
Tax Map/Lot	**2010 Survey Lot Designation**	**Acreage**
42/29	Lot 1	12.61
42/30	Lot 2	3.98
42/31	Lot 3	4.10
42/32	Not Named	8.8

The Subject Property is accessed by an unnamed driveway off Route 195 (also known as Corea Road) and based on its location, is within Shoreland zoning. The Subject Property contains a right-of-way to the Atlantic Ocean, located directly west of the Subject Property. These lots form a circle that is encompassed by the former Wullenweber Circulatory Disposed Antenna Array (CDAA) which was a radio direction-finder. The main building, which served as the operations center for this portion of the facility, is Building #85. Building #85 is surrounded by additional smaller buildings labeled as a septic tank building (#229), maintenance building (#217), maintenance building (#156), generator building (#103), and an electronics storage building (#226). All buildings associated with NSGAWH, were sequentially labeled by number in order of construction date.



2.2 Site Geology and Hydrogeology

CEG reviewed several geological sensitivity maps prepared by the Maine Geological Survey (MGS) for the Subject Property. The maps included a surficial geology map, significant sand and gravel aquifers map, and the Bedrock Geologic Map of Maine. CEG also reviewed several historical USGS topographic maps of the Subject Property.

Table 2
Site Geology and Hydrogeology

Feature	Source	Description
Nearest Water Body	USGS Topographic Map	Un-named stream originating at the Subject Property flowing westerly and discharging to Prospect Harbor
Bedrock Geology	Maine Geologic Survey	Devonian aged granite, but gray highly fractured basalt was encountered near the Wullenweber Array

Table 2
Site Geology and Hydrogeology

Feature	Source	Description
Surficial Geology	Maine Geologic Survey	The surficial soil near the coast consists of undifferentiated thin drift. The soil thickness ranges from 0 to 7.5 feet thick and is mostly sand and gravel with some areas also containing silt. Soils toward the interior consist of swamp and marsh. Groundwater was encountered north of the site and west of Building #153 at a depth of 52 to 79 inches below grade and south of Building #85 at 0 to 16 inches below grade.
Wetlands	National Wetland Inventory (NWI), EDR Report	Wetlands are scattered along the perimeter of the Subject Property.
Flood Zone	(FEMA) 100-year flood plain panel for Hancock County Panel 230283 0020 B	Area designated with no base flood elevation (a), 500 year flood plain area (X), and coastal flooding with base elevation of 13 feet (VE)
Drinking Water Source	Maine Public Water Resource Information System, MEDEP EGAD	Nearest public water supply well approximately 1.8 miles northwest of Subject Property across Prospect Harbor.
Sand & Gravel (S&G) Aquifer	MEDEP EGAD Database	Nearest sand & gravel aquifer is approximately 5 miles northeast of Subject Property

The Subject Property is located near a heath unique to North America and, therefore, is listed by the Maine Critical Areas Program.

According to the *Final Environmental Site Assessment Report*, March 2002, by Malcolm Pirnie Inc. (MPI), granite bedrock was encountered at depths ranging from one inch to 80 inches below ground surface. Field observations indicated that overburden consisted mainly of a thin veneer of sand and gravel with some silt ranging in thickness from 0.5 to 7.5 feet. The bedrock well installed in the former location of the leachfield near the Wullenweber CDAA consisted of gray, highly fractured basalt.

2.3 Current Use of the Property

The Subject Property is vacant. There has been no activity at the site since the late 1990's.

2.4 Historical Use Information on the Property

The Wullenweber CDAA was constructed in the 1960's. The Wullenweber CDAA is a large circular antenna array used for radio direction finding. It was used by the military to triangulate radio signals for radio navigation, intelligence gathering, and search and rescue. The Subject Property's Wullenweber CDAA was composed of High Band Antenna System and a Low Band Antenna system. The high Band system consisted of 120, 18 foot tall wood support poles; 240 wood "boom boards"; 120 antenna elements and reflector panels; 120 concrete antenna bases; concrete guy wire bases; copper clad wires and copper ground bus bars. The Low band System consisted of 40, 97 foot tall steel support towers; 120 concrete tower bases; 40 antenna elements; 40 concrete antenna bases; 40 wood "boom boards"; 40 reflector screen panels, concrete grade beams, copper clad wire and copper ground bus bars.

The NSGA ceased operations at Corea in 1998. The majority of the Wullenweber CDAA was dismantled in August 2001 and a majority of the 546 acres were transferred to the U.S. Fish and Wildlife Service in June, 2002. Remnants of the structure still remain consisting mainly of concrete support pads and buried wire.

2.5 Adjacent Property Land Use

The surrounding properties were observed only from public right-of-ways and were not thoroughly investigated for potential environmental issues during the site-walk. The only adjacent property is the land formerly part of the original 451.5 acres that NSGAWH transferred to the US Fish and Wildlife Service (USFWS) which has had no known activity since then. Properties beyond the USFWS property are primarily residential or undeveloped.

2.6 Recognized Environmental Conditions (RECs)

The following RECs and areas of concern (AOC) were identified by CEG through review of federal, state and local records, observations during the site reconnaissance, and interviews with knowledgeable persons.

REC-1. (AOC-1) Large areas within the Wullenweber CDAA contained no or little plant life. This may be related to a geotextile fabric that may underlay the surface. Torn portions of this fabric were observed in select areas of the Wullenweber CDAA. Although some areas of the Wullenweber CDAA had been disturbed and no fabric or plants were visible in these areas. According to personnel that described the rate and frequency of herbicide application, the amount of potential herbicide application ranged from a low of 3,250 gallons to a maximum of 120,000 gallons over the operational life of the Wullenweber CDAA. The boom boards supporting the Wullenweber CDAA in this area were treated with sprayed on pentachlorophenol, creosote, and tetrachlorophenol. Solvents were applied to particular components of the Wullenweber CDAA as periodic maintenance.

REC-2. (AOC-2) The presence of broken fluorescent light bulbs particularly in Building #85 may have resulted in the release of mercury to the floors and walls.

REC-3. (AOC-3) There is a potential for petroleum releases related to the 2,500 gallon abandoned fuel oil underground storage tank (UST) located adjacent to Building #85. In addition, CEG was not certain that the 8,000-gallon diesel fuel UST had been removed.

REC-4. (AOC-4) The pesticide mixing area west of Building #103 has not been tested for herbicides or pesticides.

REC-5. (AOC-5) The floor drain located in Building #156 should be traced and its discharge or residue within the exposed drain may contain residual levels of contaminants. According to Phillip Church, Building #156 was a location for significant solvent use. If releases occurred they would likely have been discharged to the floor drain.

REC-6. (AOC-6) Asbestos was confirmed in select samples of the floor tile and mastic of Buildings #85 during a 1992 inspection. The material was not friable at the time of testing and did not pose a threat; however, the condition of the building interior has drastically deteriorated and the Asbestos containing material (ACM) should be again evaluated.

REC-7. (AOC-7) Lead paint was verified on the exterior of Building #85 during a 1996 inspection and assumed to be in the interior of many of the buildings as well. The paint is significantly chipping with large sections completely peeled from the walls, doors, and other surfaces. Chipping paint could potentially impact surface soils and come in contact with humans through dermal, ingestion, and inhalation exposure routes.

REC-8. (AOC-8) Based on the documented construction dates for Building #85 (1961) and Building #103 (1965), there is a potential that PCB impacted building material, such as caulk or concrete beneath former transformers, maybe present. The use of PCBs in caulk used for windows sealants and masonry joints occurred primarily between the years 1950 and 1980. PCBs were banned in the United States in 1979. The presence of PCB caulk could potentially impact indoor air quality and may be an issue if the building is to be demolished and disposed off-site.

3.0 PHASE II ACTIVITIES

The following subsections outline HCPCs approved scope of work, the site's conceptual model, the field investigation methods, and the analytical program.

3.1 Scope of Assessment

CEG conducted the following scope of work to investigate the identified AOCs:

- Prepared and submitted this work scope and cost estimate for your approval;
- Marked the Site for Dig Safe;
- Collected building material samples from Building #85 for the analyses of lead, mercury, and PCBs in level C personal protective equipment (PPE) using a respirator cartridge specifically for filtering mercury vapors;
- John Selleck, of MEDEP, screened building surfaces and ambient air for mercury using a Lumex mercury vapor analyzer;
- Screened building surfaces for lead using an x-ray fluorescence (XRF) meter;
- Collected building material samples for analysis of PCBs;
- Collected one representative sample of broken fluorescent bulbs for characterization to determine if material is hazardous;
- Collected wipe samples of flooring material below broken fluorescent bulbs to determine impacts from condensed mercury to porous materials;
- Collected carpet below broken fluorescent bulbs as confirmation samples to the wipe samples;
- Collected a sorbent tube for the analysis of mercury vapor in ambient air within Building #85;
- Investigated the floor drain piping in Building # 156 to determine the discharge point;
- Sampled sludge from the floor drain in Building # 156 for contaminants of concern;
- Conducted test pitting to explore subsurface conditions in the vicinity of the current/former fuel oil, diesel fuel USTs, and the Wullenweber CDAA;
- Screened surficial, shallow, and deep soil samples for relevant contaminants of concern using a photoionization detector and headspace technique for volatile organic compounds (VOCs), petroleum hydrocarbons using oleophilic dye tests, and for metals using an XRF meter;
- Collected surficial, shallow, and deep soil samples based on soil screening and analyzed for contaminants of concern as identified in each REC;

- Collected a soil sample from the herbicide pesticide mixing area and the Wullenweber CDAA based on proximity to suspected contaminants;
- Collected a surface water sample from the drainage ditch around the perimeter of the Wullenweber CDAA and analyze for specific herbicides of concern;
- Subcontracted an asbestos investigation;
- Jason Langley, of the MEDEP, conducted a location survey of each analytical sample location using global positioning system (GPS); and
- Prepared a report summarizing the methods and results of the investigation.

Table 3
Contaminants of Concern

Recognized Environmental Condition (REC)	Contaminants of Concern (COCs)
REC #1- There are large areas within the Wullenweber CDAA that contain no plant life. The cause of this could be related to geotextile located directly below the surface, excessive amounts of herbicides, or another unrelated reason. Other treatments included wood preservatives and solvents.	• herbicides/ pesticides •SVOCs; •VOCs; •metals
REC #2- The presence of broken fluorescent light bulbs particularly in Building #85 may have resulted in the release of mercury to the floors and walls.	• mercury
REC #3- Potential fuel spills related to the abandoned 2,500 gallon #2 fuel oil UST southwest of Building #85. In addition CEG is not certain that the adjacent 8,000-gallon diesel fuel UST has been removed.	• #2 fuel oil and diesel fuel constituents
REC #4- The pesticide mixing area west of Building #103 has not been tested for herbicides or pesticides.	• pesticides and herbicides
REC #5- There is a floor drain located in Building #156 that has an unknown discharge point. A significant amount of solvents were used in this building and if releases occurred it is likely that they were discharged to the floor drain and its discharge point.	• VOCs (solvents) and Resource Conservation and Recovery Act (RCRA) metals
REC #6- Asbestos was detected in Building #85 and should be reevaluated to determine if the condition of the floor has deteriorated enough to be considered friable.	• asbestos
REC #7-Lead paint was verified on the exterior of Building #85 during a 1996 inspection and assumed to be in the interior of many of the buildings as well. The paint is significantly chipping with large sections completely peeled from the walls, doors, and other surfaces.	• lead
REC #8- Based on the construction date of Buildings #85 and #103, the presence of poly-chlorinated biphenyls (PCBs) containing caulk and paint should be investigated	• PCBs primarily aroclors 1254 and 1242

3.1.1 Chemical Testing Plan

CEG contracted Absolute Resource Associates (ARA), of Portsmouth, New Hampshire, to conduct off-site laboratory analysis of select soil and groundwater samples for: VOCs in water and soil using USEPA Method 8260; semi-volatile organic compounds (SVOCs) in water and soil using USEPA Method

8270C;extractable petroleum hydrocarbons (EPH) using MADEP -2004-1.1; polychlorinated biphenyls (PCBs) using USEPA Methods 8082; metals using USEPA Method 6010; toxicity characteristic leaching procedure (TCLP) for specific metals using ICP/6010; pesticides using EPA Method 8081;and Herbicides using EPA Method 8151A. CEG also contracted, Katahdin Analytical Services (Katahdin), of Scarborough, Maine for total organic carbon of select soil samples, Alpha Analytical (Alpha), of Mansfield Massachusetts for air analyses of mercury using NIOSH Method 6009, and Pacific Agricultural Laboratory (PAL), of Portland, Oregon for simazine using EPA Method 8270D; and bromocil using EPA Method 8321B.

Each sample was labeled for laboratory identification. The sample labels included the site name, sample number, analysis requested, preservation/filtering information, time, date, and sampler's initials. Information concerning preservation methods, matrix, and sample location was also included on chain of custody forms. Chain of custody forms accompanied the samples to the off-site laboratory. Off-site samples were stored on ice for delivery to the laboratory and were maintained at approximately 4 degrees Celsius (C) from time of sample collection until analysis, as applicable. A complete set of the laboratory analytical data, including the chain of custodies is presented in **Appendix D**.

3.1.2 Deviations From Work Plan

CEG mistakenly requested sample “BM-85 Carpet” be analyzed for PCBs on the chain of custody rather than mercury.

The air samples for the detection of mercury vapor was described in the SSQAPP as being collected using summa canisters. The NIOSH method 6009 that was proposed and conducted uses a sorbent tube. The SSQAPP also indicated the results would be compared with the MEDEP Hazardous Indoor Air RAG for mercury; however, due to the purpose of the sampling, CEG has determined that the corresponding NIOSH recommended exposure limits (REL) is more appropriate for the protection of the sampler and any future workers that will be conducting clean-up activities within the building.

3.2 Field Exploration Methods, Sampling and Chemical Analyses

The following section presents a detailed description of the field investigation methods as well as the sampling and chemical analyses completed for the investigation.

3.2.1 Field Screening Samples

On-sight screening consisted of VOCs using a photoionization detector (PID) with a 10.6 eV-lamp and the presence of fuel oil using oleophilic dye shake tests, both in accordance with MEDEP standard operating procedure TS004, *Compendium of Field Testing of Soil Samples for Gasoline and Fuel Oil,* dated October 15, 2012. Select soils and painted surfaces were also screened for metals using a portable XRF meter following MEDEP’s Standard Operating Procedure (SOP) #14.

John Selleck, of the MEDEP, operated a RA-915 Lumex Portable Mercury Vapor Analyzer (Lumex) for the purpose of screening ambient air within Building # 85 due to the broken fluorescent bulbs.

3.2.2 Laboratory Analyzed Samples Collected

Surficial soil samples were collected and documented in accordance with the QAPP and SOP #002. Per SOP #002, VOC samples were collected with minimal soil disturbance inserting the non-rubber soil collection syringe directly into the soil profile. All surficial soil samples were collected using a method that maximizes the recovery of the stained or impacted soil. Samples were collected at the following locations:

- Shallow soil samples SS-1 and SS-2 were collected within the herbicide treated antenna array area and analyzed for pesticides, herbicides, and total organic carbon, simazine, and bromocil. Corresponding soil samples from test pits TP-1 and TP-2 were collected and analyzed for VOCs, SVOCs, and RCRA metals;
- An air sample (85-Air) was collected by sorbent tube and analyzed for mercury vapor;
- 85 Carpet Wipe sample was analyzed for mercury;
- Soil samples CSS-27 through CSS-38 were taken from the UST excavation located on the southwest corner of Building #85 and screened for VOCs using a PID in triplicate and for fuel oil using oleophilic dye testing. Three corresponding duplicate samples were collected as LS-29, LS-32, and LS-34 and analyzed for EPH;
- SS-5, SS-5 Dup, and SS-6 were collected at the west corner of Building # 103 in the vicinity of the former herbicide/pesticide mixing area. The samples were analyzed for herbicides, pesticides, total organic carbon, simazine, and bromocil;
- Sample SS-3 consisted of a sludge residue remaining in the floor drain of building #156 and analyzed for VOCs, SVOCs, and RCRA Metals;
- The blue and tan floor tiles and each associated mastic in Building #85 were tested for asbestos;
- Building material sample BM-15 consisted of a mix of soil and paint chips from a painted railing on the southeast corner of Building #85 and analyzed for lead;
- Building material samples BM-2, BM-3, BM-4, BM-6, BM-10, BM-11, BM-12 consisted of distinctly different caulk material throughout Building # 85 and a carpet sample (BM-85 Carpet) were analyzed for PCBs; and
- Building material samples BM-5A, BM-5B, BM-5C, BM-7A, and BM-7A Dup were concrete samples associated with two different transformer pads and analyzed for PCBs.

3.2.3 Test Pitting and Shallow Soil Sampling

Test pitting and associated sample collection activities were conducted in accordance with SOP #002 in the Generic Company QAPP and the *Compendium of Field Testing of Soil Samples for Gasoline and Fuel Oil*, MEDEP SOP # TS-004, October 15, 2012. Test pits were backfilled with native excavated material.

Excavations for test pits TP-1 and TP-2 were approximately 4 feet below grade surface. The soils consisted of dry, brown sand and gravel with little silt. Duplicate soil samples were collected and analyzed for VOCs, SVOCs, and RCRA Metals and a field duplicate for sample TP-1 was collected and identified as sample "TP-1 DUP". The sample locations are shown on the attached **Figure 2 and 3, Appendix A**.

3.2.4 Test Pitting/Underground Storage Tank (UST) Removal

On November 12, 2015, CEG performed test pitting in the vicinity of a 2,500-gallon UST to document subsurface soil conditions beneath and around the tank. The UST was located west of Building #85. Additional test pitting was performed to investigate if the former 8,000-gallon diesel fuel UST had been previously removed. Based on the available data reviewed during the preparation of the Phase I ESA, it was not conclusive that the UST was removed.

It was necessary to remove the 2,500 gallon UST in order to evaluate the soil conditions beneath the tank. CEG conducted the test pitting in accordance with MEDEP standard operating procedure TS004, *Compendium of Field Testing of Soil Samples for Gasoline and Fuel Oil,* dated October 15, 2012. CEG conducted soil screening using oleophilic dye shake tests and a Thermo Environmental OVM 580 B PID. A total of 16 Confirmatory Screening Samples (CSS) were collected from the test pit per TS-004 guidelines based on the excavation dimensions (12 feet by 20 feet). No dye test sample had any discoloration indicating contamination. No CSS sample had any detectable VOC concentrations using the PID and headspace technique. Three samples co-located at CSS-29, CSS-32, and CSS-34 and labeled LS-29, LS-32, and LS-34, respectively, were collected for laboratory analysis of EPH using Massachusetts Department of Environmental Protection (MADEP) Method 04-1.1. These LS samples were collected as part of the required 10% laboratory confirmation sample collection. Laboratory analysis was conducted by ARA. Sample LS-29 was collected from the mid-north bottom of the excavation approximately 12 feet below grade. Sample LS-32 was collected along the west wall at approximately 8 feet below grade, and sample LS-34 was collected at the south wall at approximately 8 feet below grade.

According to laboratory results, no EPH compounds were detected. The UST appeared to be in good condition and no holes, loose fittings, cracks, fractures or other evidence of an associated release was observed. Additionally, no staining, pooled liquids, or other evidence of surface discharges were observed at the Site as part of this assessment. The figure below shows the CSS sample locations.

No evidence of the 8,000 gallon UST was found during the test pit investigation for that tank. The test extended approximately seven feet below grade and measured approximately six feet by 15 feet.

N
BUILDING 85
BUILDING 103
31
38
30
35
29
33
32
28
27
37
34
36
LEGEND
33 CSS 0-2 SAMPLE LOCATION
32 CSS 2-15 WALL SSAMPLE LOCATION
29 CSS FLOOR SAMPLE LOCATION
TANK EXCAVATION AREA
TANK LOCATION
APPROXIMATE SCALE IN FEET
0
15
30
CLIENT:
HANCOCK COUNTY PLANNING COMMISSION
LOCATION:
NAVAL SECURITY GROUP ACTIVITY GOULDSBORO, MAINE
PM: DW
DETAILED: DW
PROJECT NO.: 1014-257-00
REV. NO.:
DRAWING DATE: 08/30/15
ACAD FILE: SITESKETCH
CSS SAMPLES COLLECTED AROUND 2,500-GALLON UST
CAMPBELL ENVIRONMENTAL GROUP
173 GRAY ROAD
FALMOUTH, MAINE 04105

3.2.5 Building Material Sampling

The building material samples within the interior of Building #85 were collected by CEG personnel equipped with a respirator and appropriate National Institute for Occupational Safety and Health (NIOSH) approved cartridge specifically designed for mercury vapor. Riverside Lane and CEG personnel collected building material samples for the analysis of lead paint, mercury, and PCBs.

CEG collected one sample (BM-15) to be analyzed for lead. The sample was collected from residue on the ground surface below the painted hand railing on the southeast side of Building #85.

CEG collected representative caulk samples from Buildings #85 and #103 for the analysis of PCBs using EPA Method 8082 with a Method 3540 soxhlet extraction (BM-2, BM-3, BM-4, BM-6, BM-10, BM-11, and BM-12). Building samples BM-11 and BM-12 were collected from roof sealing material on the roof of Building #85. The remaining building material samples were representative of caulk material used as a sealant around windows, doors, and/or foundations. Samples from the carpet (BM-85 Carpet) and from two concrete pads in and adjacent to Building #85 that formerly contained transformers, were also sampled and analyzed for PCBs (BM-7A, BM-7A Dup, BM-5A, BM-5B, and BM-5C). CEG attempted to collect triplicate samples from each of the two concrete pads; however, due to the limited access to the BM-7 location, only a single sample and a duplicate sample for field QA/QC was collected at this location.

BM-11 Black rubbery material sealing sky light

Sampling BM-2 and Sample BM-3 was collected from door frame to the left of the sampler.

Sampling BM-4 Caulk above head of sampler

CEG collected a sample (153-1 TCLP) of the broken fluorescent bulbs in the nearby Building #153 Complex for the analysis of toxicity characteristic leaching procedure (TCLP). The purpose of the analysis was to determine if the bulbs would be considered hazardous waste during any future clean-up activities. It is assumed the fluorescent bulbs are the same at each of the two complexes.

CEG subcontracted Riverside Lane to conduct asbestos containing materials (ACM) and screened painted surfaces for lead using an XRF meter. Riverside Lane collected 3 samples from the tan floor tiles and 3 samples from the associated mastic, and 3 samples from the blue floor tiles and 3 samples from the associated mastic.

CEG provided Riverside Lane personnel an Innov-X XRF unit for the lead paint screening. The unit was calibrated prior to collecting any data. A total of forty six (46) readings were collected from the various buildings on the project site and the detection threshold for a positive reading was set at 1.0 mg/cm². Positive test results were obtained from the surfaces painted in the "safety yellow" color found around the exterior of Building 85. This paint was found on the safety bollards, handrails, and edge markings primarily around the loading dock area. The riverside Lane Report is included in **Appendix D**.

3.2.6 Surface Water Sampling

A single surface water sample (SW-1) and duplicate sample (SW-1 DUP) was collected at a point within the drainage Wullenweber CDAA swale. The sample was collected in the south western portion of the swale and was down gradient portion of the swale approximately 620 feet south southwest of the southwest corner of Building #85 (**Figure 2, Appendix A**). The method of collecting the surface water sample consisted of following CEG's SOP 013 using the dipping method for flowing water. The surface water sample was analyzed for simazine using EPA Method 8270D and for bromocil using EPA Method 8321B by PAL. A split of the original sample was shipped to ARA for the analysis of pesticides using EPA Method 8081B and herbicides using EPA Method 8151B. ARA subcontracted the analysis to, Phoenix Environmental Laboratories.

3.2.7 Air Sampling

CEG trained personnel wore a respirator and NIOSH approved cartridge specifically for mercury vapor during the collection of the sample within Building #85. The air sample was collected using a sorbent tube provided by Alpha Analytical. The sample was collected by breaking off the end tips of the sorbent tube, placing the appropriate open end into a Sensidyne pump, and drawing a quantity of 2 liters of air through the tube. The tube was shipped to Alpha Analytical and analyzed for mercury vapor using NIOSH Method 6009.

3.2.8 Survey

Jason Langley, of MEDEP, conducted a horizontal survey using a GPS of all sampling locations. These measurements were used to locate the sample locations on **Figures 2 and 3, Appendix A.**

4.0 EVALUATION AND PRESENTATION OF RESULTS

The following subsections summarize the analytical results and detail site conditions.

4.1 Data Quality Assessment Summary

This subsection provides a summary of results from the Quality Assurance Quality Control (QA/QC) program. The primary purpose of the QA/QC program is to meet the data quality objectives for the soil and groundwater sampling program as outlined in the QAPP. QA/QC samples collected in the field include equipment blanks, trip blanks, and field duplicate samples. The QA/QC program also requires the review and evaluation of field sampling procedures.

4.1.1 Evaluation of Sampling Procedures

CEG evaluated sampling procedures and field data in conjunction with the review of project analytical data. CEG reviewed;

- Documentation of field equipment calibration activities;
- Field data for technical credibility versus the sample site setting;
- Field sample data and chain-of-custody records; and
- Sample handling and preservation procedures.

Field sampling activities were conducted according to CEGs Generic QAPP and the Site Specific QAPP Addendum. Field screening equipment was calibrated according to the respective manufactures SOPs and field data was reviewed by CEG personnel. Respective laboratories indicated acceptable sample receipt condition including the presence of trip blanks, and signed chain of custodies. Additionally, laboratories received samples in acceptable condition, at 2 degrees Celsius, on ice, and in accordance with sample handling, preservation, and integrity guidelines as applicable.

4.1.2 Quality Assurance Quality Control (QA/QC) Samples

This Phase II ESA was conducted in conjunction with a Phase II ESA associated with the same former Naval Security Facility but located in a different area designated as Building Complex #153. To reduce redundancies between the two sites, select QA/QC samples were collected from one or the other site but not for both. Many of the samples from both sites were

consolidated within the same chain of custody; therefore, results from QA/QC samples, control samples, and field samples from both sites are included within a single laboratory report included in Appendix D.

4.1.2.1 Absolute Resource Associates

QA/QC samples collected in the field included trip blanks and field duplicate samples. Additionally, laboratory method blanks, laboratory control samples, and laboratory control sample duplicates were analyzed. All QA/QC results are included in each corresponding laboratory report in **Appendix D**.

Duplicate field samples for the purpose of field QA/QC were collected for the following samples: TP-1/TP-1 DUP for VOCs, SVOCs, and RCRA metals; SS-5/SS-5 DUP for pesticides, herbicides, and total organic carbon; BM-6/BM-6 DUP for PCBs; and SW-1/SW-1 DUP for aqueous herbicides and pesticides. Other duplicates that pertain to the collection and analysis of samples collected for this Phase II ESA but were collected from the nearby Building #153 Complex include LS-22 and LS-22 DUP for EPH, 153-1 Carpet/153-1 Carpet DUP for mercury, 153-1 Wipe/153-1 Wipe DUP for mercury. A separate Phase II ESA was completed at the Building #153 Complex in conjunction with the ESA for the Subject Property. Sample TP-1 and TP-1 Dup had detectable concentrations for four metals which all met the relative percent difference (RPD) of 50%. The only other duplicate sample with detectable concentrations was the 153-1 Wipe and 153-1 Wipe Dup samples.

Table 4
Relative Percent Difference (RPD) for Duplicate Samples

Compound	Sample Identification		RPD
Metals	**TP-1**	**TP-1 Dup**	
Arsenic	2.6	2.1	21.28
Barium	13	8	47.62
Chromium	11	9	20
Lead	5.6	4.6	19.61

Laboratory Surrogate Results

PCB: The surrogate, decachlorobiphenyl, in the sample 34980-023 (**BM-12**) did not meet the acceptance limits due to a matrix interference.

PCB: The surrogate, decachlorobiphenyl, in the LCS/D8392 and sample 34980-042 (**Eq Blk Chisel**) did not meet the acceptance limits due to a suspected interference exhibited during the extraction process. The surrogate, tetrachloro-m-xylene, and the spiking solution containing PCB-1016 and PCB-1260 showed acceptable recovery. No impact to the data is suspected.

PCB: The surrogate, tetrachloro-m-xylene, for 34980-007 (**BM-7-A**) was above the acceptance criteria. Since no aroclors were detected above the quantitation limit, there is no impact to the data.

PCB: The surrogates were diluted out of the calibration range in the following samples: 34980-008 (**BM-5-C**), -017 (**BM-2**), -024 (**BM-3**), -025(**BM-4**), -029(**BM-11**), and -030 (**BM-10**).

Laboratory Control Sample Results

VOC: The MLCS/D8401 did not meet the acceptance criteria for vinyl chloride and bromomethane. Since <10% of the compounds were outside of the acceptance criteria, re-analysis is not required.

EPH: The LCS8393 did not meet the acceptance criteria for acenaphthylene. The recovery was acceptable in the LCSD. Since <10% of the compounds were outside of the acceptance criteria, re-analysis is not required.

SVOC: The LCS8375 did not meet the acceptance criteria for hexachlorocyclopentadiene. Since <10% of the compounds were outside of the acceptance criteria, reanalysis is not required.

Matrix Spike/Matrix Spike Duplicate/Duplicate Results

SVOC: The matrix spike for 34980-062 (**TP-2**) did not meet the acceptance criteria for several analytes. Refer to ARA Quality Control (QC) report for specific analytes. The associated batch QC showed acceptable recovery. Matrix interference is suspected.

Other

PCB: The following samples required a re-analysis at a dilution due to matrix interferences: -026 (**BM-6**).

Reporting Limits: Dilutions performed during the analysis are noted on the ARA result pages.

4.1.2.2 Alpha Analytical

No QA/QC issues were noted in the Alpha Analytical laboratory report.

4.1.2.3 Katahdin Analytical Services

No QA/QC issues were noted in the Katahdin laboratory report with all data within acceptable ranges.

4.1.2.4 Phoenix Environmental Laboratories

No data referencing any samples analyzed by the laboratory was listed in the Sample Criteria Exceedence Report.

4.1.2.5 Pacific Agricultural Laboratory

All of the surrogate recovery, matrix spike data, and method blank data were within acceptable ranges.

Data Quality Evaluation

Based on the results of laboratory QA/QC data, CEG recommends relying on the data presented. In the future, remedial decisions and other data quality based actions should be made with regards to the validity of the data. If removal of contaminants is a selected remedial action, confirmation sampling should be conducted that meet QA/QC objectives. Mercury air quality within Building #85 may vary significantly based on ambient air temperature. This should be considered when conducting remedial actions within the building.

4.2 Analytical Data

Analytical results for soil and aqueous project samples have been evaluated based on a comparison to applicable regulatory standards. Laboratory results for soil samples have been compared to the MEDEP's *Maine Remedial Action Guidelines (RAGS) for Soil Contaminated with Hazardous Substances*, dated February 5, 2016.

RAGs are risk-based criteria designed to assess the potential threat specific constituents may pose to sensitive receptors. The regulatory guidelines presented in the RAGs do not include all compounds analyzed using the laboratory methods specified for this Phase II ESA. The compounds that do not have corresponding regulatory guidelines may have insufficient risk assessment data for determining a detrimental environmental or health risk. All compounds have the potential to be regulated by the MEDEP or EPA if a risk to human health or the environment is a concern. Concentrations of multiple compounds, with or without a guideline, can be interpreted as a cumulative risk to sensitive receptors. All laboratory reports have been included in **Appendix D** of this report.

4.2.1 Soil Screening Results

4.2.1.1 Soil Screening for VOCs and Metals

CEG collected a total of two soil samples (SS-1 and SS-2) that were screened for VOCs and metals. The results are listed below in **Table 4**.

Table 5 VOC and Metals Screening Results in Parts per Million (ppm) using a PID and XRF Meter		
Parameter	**Sample Identification**	
	SS-1	**SS-2**
VOCs	<1.0	< 1.0
Arsenic	14	11
Lead	10	21
Chromium	BDL	BDL
Mercury	BDL	BDL
BDL-below detection limit		

4.2.1.2 VOC and Fuel Oil Shake Test Screening During UST Test Pitting

No VOCs were detected above the 1 part per million (ppm) detection limit of the PID in any of the 16 soil samples collected in and around the UST excavation. Duplicate samples from the same 16 samples were also tested for fuel oil using oleophilic dye shake tests. All the duplicate samples were negative for fuel oil. The standard EDD forms for the soil descriptions, depths, and results of each sample collected per SOP # TS-004 are included in **Appendix B**.

4.2.1.3 Lead Paint Screening Using an XRF Meter

Riverside Lane analyzed 10 locations of painted surfaces for and analysis of lead using the XRF meter. Of these 10 samples, four samples had lead concentrations greater than 1 milligram per cubic centimeter (mg/cm^2). Each of these four samples with concentrations greater than 1 mg/cm^2 was painted “safety yellow”.

4.2.1.4 Mercury Vapor Screening

MEDEP reported to CEG that the Lumex meter detected a concentration of 700 nanograms per cubic meter (ng/m^3) of mercury vapor while screening ambient air near the center of Building # 85 (See **Figure 3, Appendix A** for location). Table 6 provides a worker safety comparison to evaluate the concentration detected.

Table 6			
Highest Lumex Reading	**NIOSH REL**	**OSHA PEL**	**ACGIH TLV**
700 ng/m^3	50,000 ng/m^3	100,000 ng/m^3	25,000 ng/m^3
Ng/m3-nanograms per cubic meter, NIOSH- National Institute for Occupational Safety and Health, REL-Recommended exposure limit which is a time weighted average of 10 hours per day for 5 days per week, OSHA-Occupational Safety & Health Administration, PEL-Permissible exposure limit is a time weighted average for 8 hours per day for 5 days per week, ACGIH- American Conference of Governmental Industrial Hygienists, TLV-Threshold limit value is a time weighted average of 8 hours per day for 5 days per week			

4.2.2 Sampling Results for On-site Solids

Laboratory analytical results with detectable concentrations compared with MEDEP Hazardous Substance RAGs are summarized in **Table 1**. A table with comparisons to MEDEP Petroleum RAGs was not necessary due to the lack of detectable concentrations in petroleum samples analyzed for EPH in the UST excavation area. Results of the asbestos sampling are included in the report by Riverside Lane in **Appendix D**. A summary of the analytical data by laboratory method throughout the site is as follows.

Volatile Organic Compounds

No VOC compounds were detected in any samples

Semi-volatile Organic Compounds

No SVOC compounds were detected in any samples.

Extractable Petroleum Hydrocarbons (EPH)

No EPH compounds were detected in any samples.

Metals

Arsenic exceeded a Hazardous RAG in samples SS-3, TP-1, TP-1 DUP, and TP-2. The metals cadmium and lead also exceeded a Hazardous RAG in sample SS-3. Sample SS-3 was collected from the floor drain of Building #156.

TCLP

Sample 153-1 TCLP was analyzed for TCLP mercury. The laboratory result indicated the sample was below the reporting limit of 0.002 milligrams per liter (mg/L). The MEDEP and EPA hazardous waste regulatory level for mercury is 0.2 mg/L.

Asbestos

The results of the sampling are as follows in Table 6.

Table 7
Asbestos Containing Material (ACM) Sample Results

Media	Number of Samples	ACM	Test Results
Floor Tile – Tan	3	No	No asbestos detected
Tan tile Mastic (adhesive)	3	No	No asbestos detected
Floor Tile – Blue	3	Yes	1.6% Chrysotile
Blue Tile Mastic (adhesive)	3	Yes	0.29% Chrysotile

4.2.3 Surface Water Sampling Results

CEG collected a surface water sample near the location where the drainage swale surrounding the array discharges to an unnamed stream that flows to the adjacent Prospect Harbor. No compounds were detected above the reporting limit. A complete laboratory report including all reports of analyses is included in **Appendix D** of this report.

4.2.4 Air Sampling Results

A single air sample within Building #85 (85 Air) was analyzed for mercury using NIOSH Method 6009. No detectable mercury concentration was detected above the 0.005 milligrams per cubic meter (mg/m^3) reporting limit. The NIOSH REL and value for skin protection are 0.05 mg/m^3 and the level of mercury requiring respiratory protection by use of a respirator and appropriate cartridge is 0.5 mg/m^3. The reporting limit is well below these threshold criteria; however, the MEDEP Hazardous Commercial RAG for elemental mercury in air is 0.0013 mg/m^3 which is below the 0.005 mg/m^3 reporting limit for the sample analyzed.

5.0 CONCEPTUAL MODEL

This subsection presents the Site conceptual model. This conceptual model has been revised from the conceptual model presented in the Phase II ESA Site Specific Quality Assurance Project Plan Addendum and is based on data presented as part of this Phase II ESA.

5.1 Site Geology and Hydrogeology

Soils in the vicinity of the UST consisted primarily of sand fill material. The soils encountered in TP-1 and TP-2 were primarily sand and gravel with little silt. No groundwater was encountered during test pitting or in the radar array or around the UST.

5.2 Contaminants of Concern

Contaminants of concern (COC) related to operations conducted at the Subject Property included:

- Metals (arsenic, cadmium, and lead) associated with the floor drain in Building #156 (Sample SS-3);
- Lead in sample BM-15 consisting of sediment and paint chips from a yellow painted railing on the southeast corner of Building #85 and lead paint of specific yellow painted exterior surfaces;
- ACM identified in blue floor tile and associated mastic;
- PCBs associated with building material caulk (highest concentrations in samples BM-2 and BM-3); and
- PCBs associated with a concrete transformer pad inside Building #85 (Samples BM-5B and BM-5C).

CEG has identified the above COCs based on detectable concentrations exceeding a corresponding RAG and potential exposure of these contaminants to humans and the environment.

5.3 Areas of Environmental Concern and Contaminant Assessment

Soils and building materials were sampled in the designated AOCs for contaminants of concern for confirmation if contaminants were present, and if so, to what extent.

Table 8

Recognized Environmental Condition (REC)	Contaminants of Concern (COCs)	COCs Detected and COC's Exceeding a Regulatory Guideline
REC #1- There are large areas within the Wullenweber CDAA that was treated with suspected pesticides and herbicides. Other treatments included wood preservatives and solvents.	• Herbicides/ pesticides •SVOCs; •VOCs; and •Metals	•The only metal exceeding a RAG was arsenic in both samples TP-1 and TP-2; however, not above background RAG
REC #2- The presence of broken fluorescent light bulbs particularly in Building #85 may have resulted in the release of mercury to the floors and walls.	• Mercury	• "85 Carpet Wipe" had no detectable mercury concentrations. Screening for mercury vapor with the Lumex indicated a concentration of 700 ng/m^3; however, the NIOSH 6009 method was below the skin and respirator threshold. The TCLP analysis indicated the bulbs were not considered hazardous waste.
REC #3- Potential fuel spills related to the abandoned #2 fuel oil UST southwest of Building #85.	• #2 fuel oil and diesel fuel constituents	• No soil screening results or EPH confirmation laboratory results had any detectable concentrations
REC #4- The pesticide mixing area west of Building #103 has not been tested for herbicides or pesticides.	• pesticides and herbicides	•SS-5 and SS-6 had no detectable herbicide or pesticide concentrations
REC #5- There is a floor drain located in Building #156 that has an unknown discharge point. A significant amount of solvents were used in this building.	• VOCs (solvents); •SVOCs; and •RCRA metals	•Sample SS-3 had three metals exceeding a RAG: arsenic, cadmium, and lead. No VOCs were detected
REC #6- Asbestos was detected in Building #85 and should be reevaluated to determine if the condition of the floor has deteriorated enough to be considered friable.	• asbestos	•Asbestos was confirmed at greater than 1 % in the blue floor tile and corresponding mastic
REC #7-Lead paint was verified on the exterior of Building #85 during a 1996.	• lead	• A sample of mixed soil and paint exceeded the corresponding RAG for lead as well as lead concentration on specific yellow painted surfaces using the XRF meter

Table 8		
Recognized Environmental Condition (REC)	**Contaminants of Concern (COCs)**	**COCs Detected and COC's Exceeding a Regulatory Guideline**
REC #8- Based on the construction date of Buildings #85 and #103, the presence of poly-chlorinated biphenyls (PCBs) containing caulk and paint should be investigated	• PCBs primarily aloclors 1254 and 1242	• Aloclor 1254 exceeded a regulatory cleanup level for most BM samples analyzed with the highest concentrations being BM-2 and BM-3.

5.3.1 AOC-1, Wullenweber CDAA Treated with Pesticides/Herbicides

AOC-1 include a ringed area surrounding Building #85 from approximately 327 feet radius to approximately 642 foot radius. The approximate 22 acres is generally bare of vegetation with the exception of some sparse scrub brush. The surface soil consists of coarse sand to gravel. Two surface soil samples were collected (SS-1 and SS-2) and analyzed for pesticides and herbicides. The purpose for the sampling and analyses was to identify any residual regulated or known compounds remaining in the surface soils. At corresponding locations, test pits TP-1 and TP-2 were excavated to approximately 4 feet below grade and samples were collected and analyzed for VOCs, SVOCs, and RCRA metals. The purpose of these samples was to investigate for additional contaminants that may have been associated with other historical or unknown chemicals used to treat the area that may have infiltrated to the subsurface through precipitation.

The laboratory analysis for pesticides and herbicides indicated no detection of compounds analyzed for in the surface soils. The subsurface soils had no VOC or SVOC compounds detected. The metal arsenic exceeded Residential and Park User RAG scenarios in the test pit soils. Although arsenic was detected above one or more corresponding RAG in TP-1 and TP-2, arsenic is a naturally occurring metal that is persistent in Maine soils and bedrock. Therefore, CEG is not considering arsenic to be a contaminant of concern for this site.

5.3.2 AOC-2, Suspected Mercury Vapor and Impacts to Building Materials from Mercury Vapor

AOC-2 consists of potential mercury vapor in ambient air as well as impacts to building materials through condensation and deposition throughout Building #85. The source of the potential mercury is the large quantity of broken fluorescent light bulbs. The sampler was equipped with an appropriate respirator for protective measures while collecting an ambient air sample, a floor sample, and corresponding wipe sample near the floor sample. The results of the air sample indicated no detectable concentrations above the reporting limit of 5 micrograms per cubic meter $\mu g/m^3$. This value is lower than the NIOSH REL of 50 $\mu g/m^3$ and below the NIOSH criteria for skin and respirator protection; however, the reporting limit was greater than the MEDEP Indoor air Commercial RAG of 1.3 $\mu g/m^3$.

The carpet sample was inadvertently analyzed for PCBs rather than mercury as a result of a mistake on the chain of custody. The floor wipe sample had no detectable concentration of mercury.

Another sample (153-1 TCLP) collected at the Building 153 complex consisting of broken fluorescent bulbs was analyzed for TCLP mercury to characterize the material for disposal purposes. The results indicated the bulbs were not classified as hazardous per MEDEP and EPA regulatory levels.

5.3.3 AOC-3, Potential Impacts from UST Located Southwest of Building #85

AOC-3 consists of a 2,500 gallon UST located near the southwest corner of Building #85. A total of 16 soils samples were screened for VOC and duplicate samples were screened for fuel oil. Three samples were duplicated for confirmation by laboratory analysis of EPH. All screening results for VOCs were below the detection limit of 1 ppm, fuel oil test were all negative, and no EPH compounds were detected above the reporting limit. The tank and piping appeared to be in good condition and no evidence of a release was observed.

No evidence of the 8,000 gallon UST was found when test pitting west of the 2,500 gallon UST. No visual or olfactory evidence of petroleum or a tank was present. However, there was a metal structure that was located in the vicinity of the former tank. A map of this area also shows the location of a septic tank. CEG believes the metal structure may be the remnants of the former septic tank.

Underground Structure

5.3.4 AOC-4, the Pesticide Mixing Area West of Building #103

Soil samples SS-5, SS-5 DUP, and SS-6 were collected along the eastern down slope of an impervious surface known to have been a mixing area for pesticides used in the treatment of AOC-1. The samples were collected within two inches of the surface and analyzed for pesticides and herbicides that are regulated and known to have been used at the Subject Property, as conducted for samples SS-1 and SS-2 in AOC -1. No compounds were detected above the reporting limits.

5.3.5 AOC 5, Floor Drain Located in Building #156

CEG attempted to locate the discharge location of the floor drain in Building #156 by introducing approximately 100 gallons of water mixed with dye into the drain and viewing various outlets and manholes for evidence of the dyed water. No dyed water was observed at any of the locations suspected or seen when investigating the building perimeter and down-gradient features.

The sludge material inside the floor drain (SS-3) was sampled and analyzed for VOCs, SVOCs, and RCRA metals. No VOC or SVOC compounds were detected above the reporting limits. Three metals (arsenic, cadmium, and lead) exceeded one or more corresponding RAG scenario. The arsenic concentrations exceeded the Residential, Park User, Commercial Worker, and Background scenarios. The lead concentration exceeded Residential and Park User RAG scenarios. And the cadmium concentration exceeded Residential, Park User, and Construction Worker scenario RAGs. The source of these elevated metals is not known, but suspected to be from materials that may have been released into the floor drain.

5.3.6 AOC-6, Re-evaluate the condition of ACM in Building #85

Samples were collected and tested to confirm the presence of ACM in specific floor tiles within Building #85. Testing results indicated the blue floor tiles and corresponding mastic contained ACM but the tan floor tiles and corresponding mastic had no detectable ACM.

5.3.7 AOC-7, Verify Lead Paint on the Exterior of Building #85

Through the collection and analysis of soil and paint chips below a hand railing on the southeast side of Building #85, lead was detected above a corresponding RAG. Screening of painted surfaces by Riverside Lane by using an XRF identified a variety of exterior features painted with yellow paint as having elevated levels of lead.

5.3.8 AOC-8, Potential PCB Containing Building Material in Building #85

Building material samples BM-2, BM-3, BM-4, BM-10, BM-11, BM-12, and BM-85 Carpet were collected from material representative of various caulk, roofing material, or carpet and tested positive for PCBs above a regulatory cleanup level. Concrete samples BM-5B and BM-5C were

collected from a former transformer pad and also tested positive for PCBs above a regulatory cleanup level.

The federal Toxic Substances Control Act (TSCA) regulates PCB-impacted caulk and many PCB-impacted building materials as PCB bulk product waste. PCB bulk product wastes regulatory cleanup level is 50 mg/kg. Building materials derived from manufactured products containing PCBs in a non-liquid state that are less than 50 mg/kg and the original product and its original installation date are both prior to October 1, 1984 are considered excluded PCB products and are not regulated by TSCA. TSCA also regulates concrete and other materials that were impacted by unauthorized spills of PCBs as PCB remediation waste. PCB remediation wastes have different cleanup levels depending on several factors. One factor involves if it is in a high or low occupancy area. TSCA high occupancy cleanup levels are for places that are occupied by people on average over 6.7 hours per week and the cleanup level is greater than 1 mg/kg. TSCA low occupancy cleanup levels are for places that are occupied by people less than 6.7 hours on average per week and are greater than 25 mg/kg. MEDEP lists RAGs for soil and groundwater, but does not consider building materials as part of their guidelines. MEDEP defers to the TSCA guidelines for caulk and other building materials and building materials impacted by unauthorized spills.

Samples BM-2 (65,000 mg/kg) and BM-3 (69,000 mg/kg) had significantly higher PCB concentrations than the other samples collected. These two PCB bulk product waste caulk samples were collected along the exterior north side of Building #85 along a door frame and outer wall. Two other samples were also detected above the TSCA regulatory cleanup level of 50 mg/kg. These samples were BM-4 (480 mg/kg) and BM-11 (370 mg/kg). BM-4 was collected from exterior wall caulk on the north western central portion of Building #85. BM-11 was collected from a rubbery sky light window sealant on the southeastern roof of Building #85. It is suspected that this material may also be present on the upper roof.

BM-10 (20 mg/kg) was collected from caulk on the exterior lower wall in the southwest portion of Building #85. BM-12 (1.7 mg/kg) was collected from caulk on the lower roof of Building #85 in the southeastern corner. These caulk samples are below 50 mg/kg for PCBs and are not regulated.

Samples were also collected from two different former transformer pads and analyzed for PCBs. Samples BM-5B (15 mg/kg) and BM-5C (38 mg/kg) were collected from one of these pads located in the southwest lower level of Building #85. These concrete samples are considered PCB remediation wastes and had detectable PCB concentrations above a corresponding TSCA high occupancy cleanup level for both samples and only low occupancy level for BM-5B. CEG cannot conclude if the carpet associated with sample BM-85 Carpet (1.9 mg/kg) is classified as PCB remediation waste or PCB Bulk waste since the source could be either the attached mastic or from deposition of contamination on shoes or other transport means It must be noted, however, that the chisel that was used to collect all of the PCB samples contained a concentration of 0.5 mg/kg as part of the equipment blank sampling. This may have caused cross contamination of some samples.

Something to note about Building #85 is that approximately 20 to 50 gallons of hydraulic oil is contained in an above ground vessel that is related to the elevator. The vessel is in the bottom floor adjacent to the elevator shaft. The oil appears to be contained, but should be properly managed. A standard waste oil analysis including PCBs should be considered when establishing a method for characterizing and disposing of the oil per Maine's Waste Oil Management Rules, Chapter 860.

5.4 Potential Receptors

Potential sensitive receptors at or in the vicinity of the Subject Property include nearby surface water, groundwater, the sensitive and unique natural heath listed by the Maine Critical Areas Program, fauna and flora associated with the unnamed stream, and adjacent Atlantic Ocean.

Human receptors could be impacted through dermal contact, inhalation, or ingestion of on-site soils, dust, and groundwater.

5.5 Contaminant Exposure Routes and Fate & Transport

COCs detected at the Subject Property consist of select metals (arsenic, cadmium, and lead) in the floor drain of Building # 156 and PCBs in various building materials, and asbestos containing tiles and associated mastic. Pending the location, condition, and physical properties of these contaminants, the contaminants have the potential to directly impact human health and the environment. Contaminants may further impact additional sensitive receptors via migration pathways. The following sections shall describe physical properties of the contaminants of concern, the potential of migration through various media, and exposure routes, and assess the relative risk to human health and or the environment.

5.5.1 Metals

In general, the potential metal COCs include the following characteristics:

- Very low solubility and mobility in neutral or basic pH environments.
- Not expected to readily volatilize into the atmosphere and is not expected to readily infiltrate to the groundwater; and

- Site related inorganics strongly adhere to organic matter in soil, and, although not subject to significant leaching, they may migrate due to water and wind erosion;

Metal solubility is affected by environmental factors including soil pH and soil temperature. The solubility of metals is affected by their molecular weights. Metals tend to have very low solubility and mobility and will, therefore, tend to stay adsorbed to the soil particles or building materials and not migrate substantially into the water column or air.

Sludge collected from the floor drain has limited exposure however, the discharge of the drain was not determined. Plugging the drain would insure residual COCs would eliminate human exposure and reduce the migration of contaminants to the discharge location.

5.5.2 PCBs

PCBs in general tend to have low water solubility and low vapor pressures. Despite the low volatility of PCBs, they can migrate through a variety of mechanisms. They are hydrophobic (low water soluble) and lipophilic (dissolve in fats, oils, lipids, and non-polar solvents such as toluene) so they tend to adsorb to organic matter. Environmental transport is compound-specific due to the unique structure of each PCB compound. This allows PCBs to move in “grasshopper patterns,” in which in warm weather they partition from soil (or sediment) to water and air and then fall to earth as temperatures cool, a process which allows PCBs to be dispersed over great distances.

Numerous factors can affect the mobility of PCBs in sediments and soil, including soil density, moisture content, as well as climate and chemical characteristics such as rainfall and organic carbon content. The presence of organic solvents can also modify the water solubility of PCBs. Over time, changes to the composition of PCB mixtures occur. These biological, chemical, and physical changes are known as weathering, which affects different PCB types in different ways. Biodegradation by microorganisms is specific to different PCB compounds. Generally, dechlorination of PCBs can occur naturally under anaerobic conditions.

PCBs in caulk and other building materials can migrate from the caulk into air, dust, surrounding building materials, and soil. Inhalation exposure to PCBs is also possible when PCBs volatilize directly from source materials (e.g., PCB Caulk and ballasts containing PCBs) into indoor air. When an individual comes into direct contact with settled particulates, a portion of the PCBs may absorb through the skin. Ingestion is also possible if particulates are transferred to the mouth. Exposure through direct contact and ingestion are also possible through other means. If an individual directly contacts building materials (e.g., PCB Caulk) or soil contaminated with PCBs, some may be absorbed through the skin. Ingestion is also possible if building materials or soil is ingested directly through hand-mouth transfer. Caulk that is peeling, brittle, cracking, or deteriorating visibly in some way may have the highest potential for creating dust and subsequent human exposure.

Once PCBs are released to the environment, PCBs have the potential to negatively impact sensitive receptors including commercial workers, construction workers, flora, and fauna. Commercial and construction workers can be impacted through ingestion and direct contact with PCB impacted shallow subsurface soils, concrete, or other building materials.

The PCB containing building materials sampled do not appear to pose an immediate threat to human health or the environment; however, any changes in the current conditions, investigating additional building materials, conducting repair or renovations to these building materials, or development of the building into habitable office space may cause health concern and exposure issues.

5.5.3 Asbestos Containing Materials

Although asbestos is neither volatile nor soluble, small fibers or clumps of fibers may occur in suspension in both air and water. These fibers are very stable and do not undergo significant degradation in the environment. Small fibers may remain suspended for long periods of time. Asbestos fibers are nonvolatile and insoluble, so their natural tendency is to settle out of air and water, and deposit in soil or sediment. Asbestos degrades in the environment very slowly.

Higher exposure levels may result when asbestos is released from asbestos-containing building materials such as insulation, ceiling tiles, and floor tiles that are in poor condition or disturbed. Human activity and traffic may facilitate release of asbestos fibers and stir up asbestos-containing dust.

Occupational exposure occurs primarily through inhalation of asbestos-containing air in the workplace. Workers involved in demolition work or asbestos abatement, as well as in building maintenance and repair, are potentially exposed to higher levels of asbestos.

The mechanisms by which ACM could migrate at the Site include air, mechanical transport, and surface runoff. Contaminant migration into air can occur by dust generation. Migration via mechanical transport can occur via site workers or trespassers and surface water has the potential to transport ACM as well.

6.0 CONCLUSIONS AND RECOMMENDATIONS

A total of eight AOCs were investigated as part of this Phase II ESA. PCBs, asbestos, lead paint, and select metals were detected above at least one regulatory standard. The exposure to PCBs, asbestos, and lead paint associated with Building #85, and various metals found in the Building #156 floor drain can be managed by restricting access to Building #85 and capping the floor drain in Building #156. The following sections outline CEGs recommendations for those AOCs of concern.

6.1 AOC-1, Wullenweber CDAA Treated with Pesticides/Herbicides

No pesticide or herbicide compounds were detected in the surface soils sampled (SS-1 and SS-2) within the treated area. Although arsenic exceeded the Hazardous RAG in TP-1 and TP-2 subsurface soils, arsenic is a common metal that occurs naturally in Maine and is, therefore, typically compared to RAG Background levels. The arsenic concentrations in TP-1 and TP-2 samples are below the background RAGs. CEG does not recommend any further investigation or remediation is warranted for AOC-1.

6.2 AOC-2, Suspected Mercury Vapor and Impacts to Building Materials from Mercury Vapor

A variety of sampled media were collected to determine potential impacts of the broken fluorescent bulbs. Initially, mercury vapor was screened by the MEDEP using a Lumex meter. According to MEDEP, the only significant reading was a concentration of 700 ng/m^3 (equal to 0.7 ug/m^3) within the east central area of Building #85. This value was far below published worker safety criteria. Subsequent building material sample (BM- 85 Carpet Wipe) and the ambient air sample (85-Air) were collected in this same location. The air sample was below the reporting limit of 5 ug/m^3 which is also below the NIOSH REL and threshold criteria for skin of 50 ug/m^3, as well as below the respiratory protection criteria of 500 ug/m^3. The corresponding wipe sample analyzed for mercury was below the reporting limit of 0.04 ug/wipe.

The purpose of the air monitoring was for the protection of those exposed while collecting the samples as well as future construction workers contracted to perform clean-up of the fluorescent bulbs or other materials. CEG anticipates that the fluorescent bulbs will be removed and properly disposed by certified hazardous waste workers using protective equipment prior to any workers occupying the building. CEG does recommend that another air sample be collected prior to the building being occupied for confirmation that the air quality is within the OHSA criteria. It is possible that in warmer conditions the concentration of mercury in the air will increase. It is uncertain if warmer conditions would create an environment that exceeds worker safety values.

Through the analysis of a sample taken from the broken fluorescent bulbs located in the Building #153 Complex and analyzed for TCLP mercury, the bulbs are not considered hazardous waste based on the toxicity characteristic.

6.3 AOC-3, Potential Impacts from UST Located Southwest of Building #85

Screening results of 16 soil samples and laboratory confirmation of three samples analyzed for EPH were all below corresponding detection limits. No evidence of a release from the UST was observed during the UST removal. CEG does not believe any further investigation or remediation is warranted for AOC-3.

6.4 AOC-4, the Pesticide Mixing Area West of Building #103

Two soil samples along the down-gradient slope of the mixing area were collected and analyzed for pesticides and herbicides. No compounds were detected above the reporting limit. CEG does not believe any further investigation or remediation is warranted for AOC-4.

6.5 AOC 5, Floor Drain Located in Building #156

The proposed floor drain dye tracer test was inconclusive. The discharge location was not discovered. Sludge within the floor drain was analyzed for VOCs, SVOCs, and RCRA metals. No VOCs or SVOCs were detected above the reporting limit. Metals were detected and arsenic, cadmium and lead exceeded multiple of Hazardous RAG scenarios. CEG recommends any remaining residue within the drain be removed and properly disposed for the purpose of reducing any further impacts to the unknown discharge location. If it is determined the floor drain is not necessary for future use of the building, CEG recommends plugging the drain. Plugging the drain would further eliminate continued migration of contaminates via water flow to the discharge location and reduce the chance of direct human exposure.

6.6 AOC-6, Re-evaluate the Condition of ACM in Building #85

Based on testing results conducted by Riverside Lane, ACM is present in the blue floor tile and corresponding mastic in Building #85. Based on the current condition of the floor tile, CEG recommends the tile be properly removed prior to the building being re-used for the health of those occupying the space. In the event the building is to be demolished, the removal of all ACM is required by MEDEP regulations.

6.7 AOC-7, Verify Lead Paint on the Exterior of Building #85

Based on the lead paint screening, the structures painted in “safety yellow” had elevated levels of lead. Also, sample BM-15 which consisted of a mixture of soil and paint chips from below an exterior yellow painted handrail, had a lead concentration of 550 mg/kg. CEG recommends the yellow painted surfaces and the soil representing BM-15 be remediated to eliminate exposure to humans as well as prevent the paint chips from migrating to other sensitive receptors via surface flow.

6.8 AOC-8, Potential PCB Containing Building Material in Building #85

A variety of caulk material, roof material, and the interior former transformer pad had PCB concentrations exceeding a corresponding regulatory cleanup level. Some of the PCB-impacted materials were in poor condition and are likely to produce dust that may impact human health. Caulk that is peeling, brittle, cracking, or deteriorating visibly in some way may have the highest potential for creating dust. In addition to inhalation from PCBs in the air or dust, exposure may occur when a person comes in contact with the caulk and any surrounding porous materials into

which the PCBs may have been released (e.g., brick, concrete, wood). Exposure may also occur through contact with PCB-contaminated soil adjacent to buildings. Soil may become contaminated with PCBs when caulk weathers. Other portions of the building materials will continue to degrade and become more likely to generate PCB impacted dust in the future.

Any repairs and renovations to the building could further disturb the PCB-impacted material and lead to human exposure. To ensure that PCB-containing building material does not contaminate surrounding surfaces when it is removed and disposed of, repairs that disturb PCB-containing building material, such as door removal and replacement, should be conducted by trained workers who use safe work practices to minimize dust and contain contaminated waste. Worker safety should be evaluated if the building is redeveloped for occupancy.

The highest PCB concentrations were detected in caulk samples BM-2 and BM-3 located on the north exterior side of Building #85. The current condition of the material indicates little to no potential exposure. However, CEG does recommend a more thorough investigation of this type of caulk be conducted throughout Building #85 to ensure all caulk containing this magnitude of PCB concentrations are identified and managed so as to reduce potential exposure. Exposure to PCBs can affect the immune system, reproductive system, nervous system, and endocrine system. In humans, PCBs are potentially cancer-causing. If the building is to be demolished, these materials need to be addressed according to state and federal regulations.

In addition, the hydraulic oil associated with the elevator should be properly managed.

The PCB-impacted caulk samples that exceed 50 mg/kg are considered by TSCA to be PCB bulk product waste and should be transported to a licensed disposal facility. PCB-impacted caulk materials that are equal to or below 50 mg/kg are not regulated by TSCA and may remain in place. MEDEP's PCB regulations address soil and groundwater, and impacted-media related to unauthorized spills of PCBs. Caulk is not specifically regulated by MEDEP. Therefore, according to MEDEP, the caulk that is below 50 mg/kg may remain in place. Since MEDEP currently does not allow the PCB bulk product waste (caulk that exceeds 50 mg/kg) to be disposed as non-hazardous waste, it must be managed as a hazardous waste. This requires out of state transportation and disposal to a licensed hazardous waste landfill or other approved disposal method. TSCA guidelines allow the material attached to the PCB bulk product waste to also be classified and managed in the same method. This material would typically include door and window casings and attached cinderblock or sheet rock wall materials. Once the caulk and or attached building material has been removed, the remaining building material surrounding the former caulk should also be tested for PCB impacts for confirmation. If, the material adjacent to the removed PCB bulk product waste is impacted and not removed at the time of the impacted building material, it may be classified as PCB remediation waste and handled accordingly.

6.9 Other

The property owner should also consider submitting an application to the MEDEP Voluntary Response Action Program (VRAP). The completion of potential VRAP requirements will result in reducing environmental liability associated with the Site at this time. The VRAP process typically includes, but is not limited to the following:

- A Soil Management Plan for any future excavation of soil;
- A private water supply well survey for the protection of others utilizing groundwater for drinking;
- A registered declaration of Environmental Covenants which generally restricts the use of groundwater for drinking water, requires MEDEP to be notified of any future excavation work, and any maintenance requirements for institutional controls that may be in-place.

APPENDIX A

Figures

Figure 1
Delorme Topographic Map
Former Naval Facility Building Complex #85

Data use subject to license.

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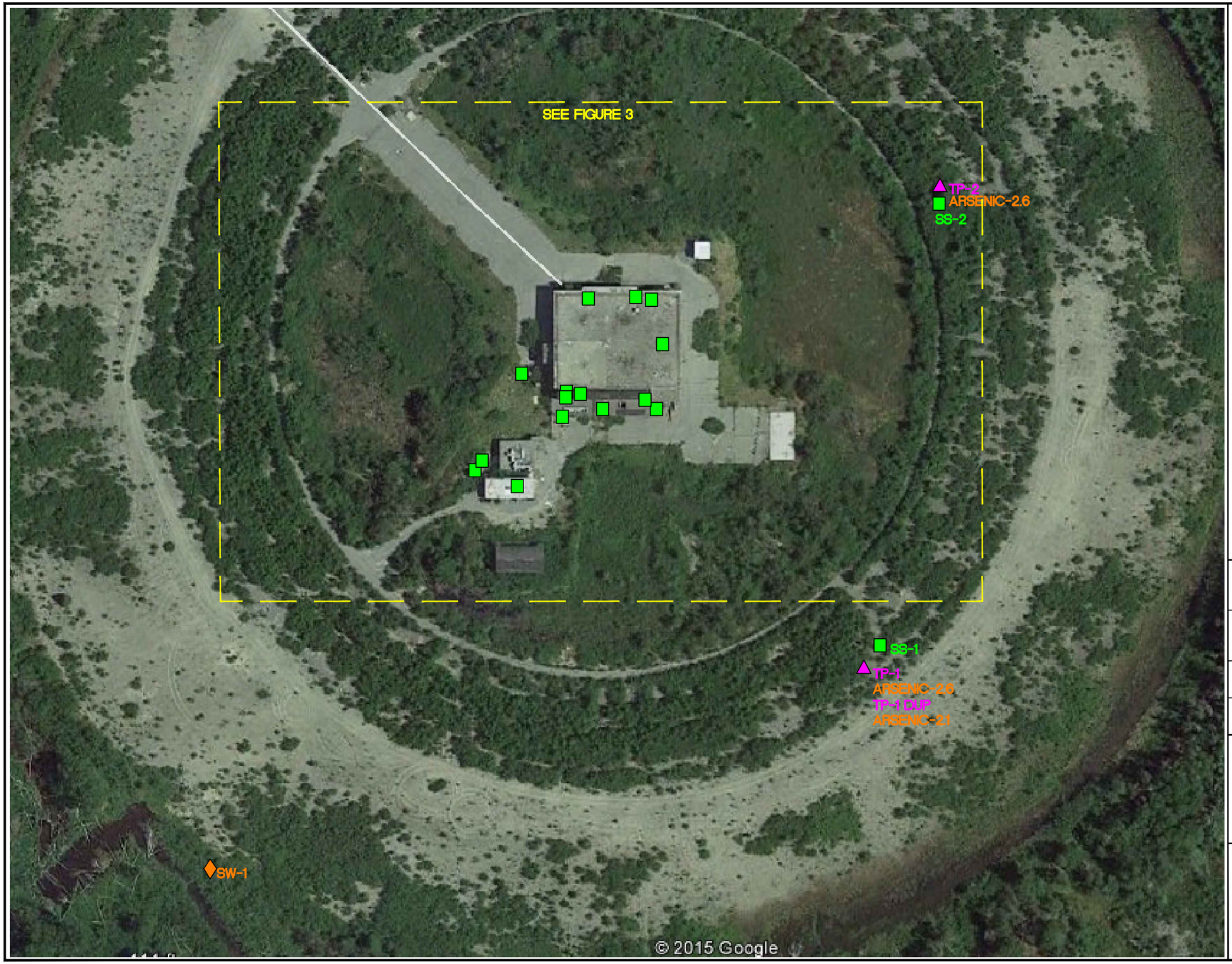
MN (16.4° W)

0 1000 2000 3000 4000 5000 ft

Data Zoom 12-6



LEGEND

- TEST PIT
- AMBIENT AIR SAMPLE FOR MERCURY
- SHALLOW SOIL SAMPLE OR BUILDING MATERIAL SAMPLE
- SURFACE WATER SAMPLE

N

APPROXIMATE SCALE IN FEET

0 100 200

CLIENT: HANCOCK COUNTY PLANNING COMMISSION

LOCATION: NAVAL SECURITY GROUP ACTIVITY GOULDSBORO, MAINE

PM:	DETAILED:	PROJECT NO.:
DW	DW	1014-257-00
REV. NO.:	DRAWING DATE:	ACAD FILE:
	12/30/15	SITESKETCH

Figure 2

SAMPLE LOCATIONS AND LABORATORY RESULTS

CAMPBELL ENVIRONMENTAL GROUP
173 GRAY ROAD
FALMOUTH, MAINE 04105

LEGEND

- TEST PIT
- AMBIENT AIR SAMPLE FOR MERCURY
- SHALLOW SOIL SAMPLE OR BUILDING MATERIAL SAMPLE
- SURFACE WATER SAMPLE

PCB POLYCHLORINATED BIPHENYLS
MG/KG MICROGRAMS PER KILOGRAM

APPROXIMATE SCALE IN FEET

0 60 120

CLIENT: HANCOCK COUNTY PLANNING COMMISSION		
LOCATION: NAVAL SECURITY GROUP ACTIVITY GOULDSBORO, MAINE		
PM: DW	DETAILED: DW	PROJECT NO.: 1014-257-00
REV. NO.:	DRAWING DATE: 12/30/15	ACAD FILE: SITESKETCH

Figure 3

SAMPLE LOCATIONS AND LABORATORY RESULTS

CAMPBELL ENVIRONMENTAL GROUP
173 GRAY ROAD
FALMOUTH, MAINE 04105

APPENDIX B

Field Data

TS004 Bag Headspace Field EDD Sheet

Site Name	HCPC/NSAG			Spill #			
Town:	COREA/GOULDSBORO			Sampler:	Danica Wallace		
Air Temperature:	42	Date:	11/12/2015	Weather:	cloudy 42º F		
Calibration Gas Concentration:			100	Soil Heating Method:	Vehicle		
Confirm high end measurement:			102	PID Instrument:	Thermo OVM 580		
Calibration Documentation				**Bumptest Documentation**			Weather:
Time 1:	8:15	Reading 1:	102	Time 1:		Reading 1:	
Time 2:		Reading 2:		Time 2:		Reading 2:	
Time 3:		Reading 3:		Time 3:		Reading 3:	

Calibration readings 1,2 and 3 readings are post-calibration checks.

Sample ID	Depth [FGS]	Interval Depth Top [FGS]	Interval Depth Bottom [FGS]	Sample Size	Collection Time	Analysis Time	Bag-1	Bag-2	Bag-3	Average	Soil Type	CSS Location	Comments
CSS-27	12'			200 g	3:00 PM		0	0	0	0.0	FILL	F = FLOOR	
CSS-28	12'			200 g	3:10 PM		0	0	0	0.0	FILL	F = FLOOR	
CSS-29	12'			200 g	3:20 PM		0	0	0	0.0	FILL	F = FLOOR	EPH Analysis
CSS-30	12'			200 g	3:30 PM		0	0	0	0.0	FILL	F = FLOOR	
CSS-31	7'			200 g	3:40 PM		0	0	0	0.0	SAND & GI	SB = SIDE WALL E	
CSS-32	7'			200 g	3:48 PM		0	0	0	0.0	SAND & GI	SB = SIDE WALL E	EPH Analysis
CSS-33	2'			200 g	3:53 PM		0	0	0	0.0	SAND & GI	SA = SIDE WALL A	
CSS-34	8'			200 g	4:00 PM		0	0	0	0.0	FILL	SB = SIDE WALL E	EPH Analysis
CSS-35	8'			200 g	4:05 PM		0	0	0	0.0	SAND & GI	SB = SIDE WALL E	
CSS-36	1.5'			200 g	4:15 PM		0	0	0	0.0	SAND & GI	SA = SIDE WALL A	
CSS-37	1.5'			200 g	4:20 PM		0	0	0	0.0	FILL	SA = SIDE WALL A	
CSS-38	1.5'			200 g	4:30 PM		0	0	0	0.0	SAND & GI	SA = SIDE WALL A	

TS004 Oil Shake Test Field EDD Sheet							
Site Name:	NSAG/HCPC				Town:	Corea/Gouldsboro	
Date:	11/12/2015				Sample Method:	GS-Grab Sample	
Spill #					Sampler:	Danica Wallace	
Ambient Temperature:	42° F		Weather:	Sunny			
Sample ID	Depth [FGS]	Interval Depth Top [FGS]	Interval Depth Bottom [FGS]	Result	Soil Type	CSS Location	Comments
CSS-27	12'			U	FILL	F = FLOOR	
CSS-28	12'			U	FILL	F = FLOOR	
CSS-29	12'			U	FILL	F = FLOOR	EPH Analysis
CSS-30	12'			U	FILL	F = FLOOR	
CSS-31	7'			U	SAND & GR	SB = SIDE WALL BELOW 2 FEET	
CSS-32	7'			U	SAND & GR	SB = SIDE WAL	EPH Analysis
CSS-33	2'			U	SAND & GR	SA = SIDE WALL ABOVE 2 FEET	
CSS-34	8'			U	FILL	SB = SIDE WAL	EPH Analysis
CSS-35	8'			U	FILL	SB = SIDE WALL BELOW 2 FEET	
CSS-36	1.5'			U	SAND & GR	SA = SIDE WALL ABOVE 2 FEET	
CSS-37	1.5'			U	FILL	SA = SIDE WALL ABOVE 2 FEET	
CSS-38	1.5'			U	SAND & GR	SA = SIDE WALL ABOVE 2 FEET	

FGS = Feet below ground surface

SA = Saturated- obvious red/ blue dye is observed in the soil matrix, or in/on the water (may stain the side of the jar)

PO = Positive- the EPS bead is dyed dark pink/ red or blue and there is no coloration in the soil or water

SP = Slightly Positive- the EPS bead is dyed light pink or blue and there is no coloration in the soil or water

U = Undetected - No observations of dye coloration on EPS bead, soil, or water

Test Pit: 1

Project:	HCPC	***Date:***	11/12/2015
Location:	Corea	***Elevation:***	
Project No.:	1014-257-00	***Excavator Company:***	AllState Environmental
Opertaor:	Brian Selleck	***Logged By:***	Danica Wallace
Notes:	VOC-Volatile organic compounds PPM-parts per million PID-Photoionization Detector		

Depth (feet)	VOCs by PID (ppm)	Lithology	Depth (feet)
0			0
1	<1	Brown, dry, fine-coarse SAND and GRAVEL, little silt	1
2			2
3		Brown, dry, fine-coarse SAND, some gravel, little silt	3
4			4
5		End of exploration 4'	5
6			6
7			7
8			8
9			9
10			10
11			11
12			12
13			13
14			14
15			15
16			16
17			17
18			18
19			19
20			20
21			21
22			22
23			23
24			24

Test Pit: 2

Project:	HCPC	***Date:***	11/12/2015
Location:	Corea	***Elevation:***	
Project No.:	1014-257-00	***Excavator Company:***	AllState Environmental
Opertaor:	Brian Selleck	***Logged By:***	Danica Wallace
Notes:	VOC-Volatile organic compounds PPM-parts per million PID-Photoionization Detector		

Depth (feet)	VOCs by PID (ppm)	Lithology	Depth (feet)
0			0
1	<1	Brown, dry, fine-coarse SAND, some gravel, little silt	1
2			2
3			3
4			4
5		End of exploration 4'	5
6			6
7			7
8			8
9			9
10			10
11			11
12			12
13			13
14			14
15			15
16			16
17			17
18			18
19			19
20			20
21			21
22			22
23			23
24			24

APPENDIX C

Table 1 Detected Compounds Compared with MEDEP RAGs

Table 1
Solid Material Sample Results Compared with MEDEP Hazardous Substance RAGs and TSCA Cleanup Criteria For Building #85 Complex in Mg/Kg

Analyte	CAS No.	SOIL (mg/kg) 2016 MEDEP (RAGs)						Soil Sample Identification							
		TSCA Hazardous	Residential	Park User	Commercial Worker	Construction Worker	TSCA**** Cleanup	BM-2	BM-3	BM-4	BM-5-A	BM-5-B	BM-5-C	BM-6	BM-6DUP
Metals (Analytical Methods 6010/7000)															
Polychlorinated biphenyls (PCBs) Analytical Method 8082															
Aloclor 1254	1336363	50	2.4	4.1	12	6.5	>1	**65000*** **	**69000*** **	**480*** **	**<0.4**	**15**	**38*** **	**<0.7** **	**<0.7**

Notes:

mg/kg-milligram per kilogram, ug/g -micrograms per gram, nr = not regulated, BDL-Below Detection Limit, NA - Not Analyzed, > - greater than

Concentration exceeds most stringent RAG

Concentration exceeds multiple scenario RAGs and or TSCA Cleanup Levels

MEDEP = Maine Department of Environmental Protection

2016 MEDEP RAGs = Maine Remedial Action Guidelines for Sites Contaminated with Hazardous Substances, Revised February 5, 2016

TSCA - Toxic Substances Control Act, TSCA**** - Toxic Substances Control Act High Occupancy Cleanup Guide is greater than 1 mg/kg

*-Surrogate showed recovery outside the acceptance criteria limits

**- Surrogate diluted out of calibration range

***-Diluted required due to matrix interferrence

Table 1
Solid Material Sample Results Compared with MEDEP Hazardous Substance RAGs and TSCA Cleanup Criteria For Building #85 Complex in Mg/Kg

Analyte	CAS No.	SOIL (mg/kg) 2016 MEDEP (RAGs)													
		Leaching to Groundwater	Residential	Park User	Commercial Worker	Construction Worker	TSCA**** Cleanup	BM-7-A	BM-7-A-DUP	BM-10	BM-11	BM-12	BM-85 Carpet	EQ BLK CHISEL Units in ug/l	
Polychlorinated biphenyls (PCBs) Analytical Method 8082															
Aloclor 1254	1336363	nr	2.4	4.1	12	6.5	>1	**<0.2***	**<0.2**	**20*** **	**370*** **	**1.7***	**1.9**	**0.5***	

Notes:

mg/kg-milligram per kilogram, ug/g -micrograms per gram, nr = not regulated, BDL-Below Detection Limit, NA - Not Analyzed, > - greater than

Concentration exceeds most stringent RAG

Concentration exceeds multiple scenario RAGs and or TSCA Cleanup Levels

Concentration exceeds TSCA clean up limit for high occupancy

MEDEP = Maine Department of Environmental Protection

2016 MEDEP RAGs = Maine Remedial Action Guidelines for Sites Contaminated with Hazardous Substances, Revised February 5, 2016

TSCA - Toxic Substances Control Act, TSCA**** - Toxic Substances Control Act High Occupancy Cleanup Guide is greater than 1 mg/kg

*-Surrogate showed recovery outside the acceptance criteria limits

**- Surrogate diluted out of calibration range

***-Diluted required due to matrix interferrence

Table 2
Solid Material Sample Results Compared with MEDEP Hazardous Substance RAGs and TSCA Cleanup Criteria For Building #153 Complex in Mg/Kg

Analyte	CAS No.	SOIL (mg/kg) 2016 MEDEP (RAGs)													
		Leaching to Groundwater	Residential	Park User	Commercial Worker	Construction Worker	TSCA**** Cleanup	BM-1-A	BM-1-B	BM-1-C	BM-3-A	BM-3-B	BM-3-C	BM-14-A	BM-14-B
Polychlorinated biphenyls (PCBs) Analytical Method 8082															
Aloclor 1254	1336363	nr	2.4	4.1	12	6.5	>1	**<0.1**	**<0.2**	**<0.2**	**<0.1**	**<0.2**	**23**	**3.6*** **	**<0.2**

Notes:

mg/kg-milligram per kilogram, ug/g -micrograms per gram, nr = not regulated, BDL-Below Detection Limit, NA - Not Analyzed, > - greater than

Concentration exceeds most stringent RAG

Concentration exceeds multiple scenario RAGs and or TSCA Cleanup Levels

MEDEP = Maine Department of Environmental Protection

2016 MEDEP RAGs = Maine Remedial Action Guidelines for Sites Contaminated with Hazardous Substances, Revised February 5, 2016

TSCA - Toxic Substances Control Act, TSCA**** - Toxic Substances Control Act High Occupancy Cleanup Guide is greater than 1 mg/kg

*-Surrogate showed recovery outside the acceptance criteria limits

**- Surrogate diluted out of calibration range

***-Diluted required due to matrix interferrence

Table 2
Solid Material Sample Results Compared with MEDEP Hazardous Substance RAGs and TSCA Cleanup Criteria For Building #153 Complex in Mg/Kg

Analyte	CAS No.	SOIL (mg/kg) 2016 MEDEP (RAGs)													
		Leaching to Groundwater	Residential	Park User	Commercial Worker	Construction Worker	TSCA**** Cleanup	BM-14-C	BM-20-A	BM-20-B	BM-20-C	BM-30	BM-31	BM-32	BM-33
Polychlorinated biphenyls (PCBs) Analytical Method 8082															
Aloclor 1254	1336363	nr	2.4	4.1	12	6.5	>1	**<0.1**	**<0.1**	**<0.2**	**<0.2**	**<0.8*** **	**<0.1**	**29*** **	**11*** **

Notes:

mg/kg-milligram per kilogram, ug/g -micrograms per gram, nr = not regulated, BDL-Below Detection Limit, NA - Not Analyzed, > - greater than

Concentration exceeds most stringent RAG

Concentration exceeds multiple scenario RAGs and or TSCA Cleanup Levels

MEDEP = Maine Department of Environmental Protection

2016 MEDEP RAGs = Maine Remedial Action Guidelines for Sites Contaminated with Hazardous Substances, Revised February 5, 2016

TSCA - Toxic Substances Control Act, TSCA**** - Toxic Substances Control Act High Occupancy Cleanup Guide is greater than 1 mg/kg

*-Surrogate showed recovery outside the acceptance criteria limits

**- Surrogate diluted out of calibration range

***-Diluted required due to matrix interferrence

Table 2
Solid Material Sample Results Compared with MEDEP Hazardous Substance RAGs and TSCA Cleanup Criteria For Building #153 Complex in Mg/Kg

Analyte	CAS No.	SOIL (mg/kg) 2016 MEDEP (RAGs)						Soil Sample Identification							
		TSCA Hazardous	Residential	Park User	Commercial Worker	Construction Worker	TSCA**** Cleanup	BM-34							
Metals (Analytical Methods 6010/7000)															
Polychlorinated biphenyls (PCBs) Analytical Method 8082															
Aloclor 1254	1336363	50	2.4	4.1	12	6.5	>1	**<0.2**							

Notes:

mg/kg-milligram per kilogram, ug/g -micrograms per gram, nr = not regulated, BDL-Below Detection Limit, NA - Not Analyzed, > - greater than

Concentration exceeds most stringent RAG

Concentration exceeds multiple scenario RAGs

MEDEP = Maine Department of Environmental Protection

2016 MEDEP RAGs = Maine Remedial Action Guidelines for Sites Contaminated with Hazardous Substances, Revised February 5, 2016

TSCA - Toxic Substances Control Act, TSCA**** - Toxic Substances Control Act High Occupancy Cleanup Guide is greater than 1 mg/kg

*-Surrogate showed recovery outside the acceptance criteria limits

**- Surrogate diluted out of calibration range

***-Diluted required due to matrix interferrence

Table 1
Solid Material Sample Results Compared with MEDEP Hazardous Substance RAGs in ug/g or ug/wipe

Analyte	CAS No.	SOIL (mg/kg) 2016 MEDEP (RAGs)						Soil Sample Identification										
		Leaching to Groundwater	Residential	Park User	Commercial Worker	Construction Worker	Background	SS-3	SS-4	TP-1	TP-1 Dup	TP-2	BM-2	BM-3	BM-4	BM-10	BM-11	BM-12
Metals (Analytical Methods 6010/7000)																		
ARSENIC	7440382	nr	1.4	2.3	4.2	42	16	**18**	NA	**2.6**	**2.1**	**2.6**	NA	NA	NA	NA	NA	NA
BARIUM	7440393	nr	10,000	10,000	10,000	10,000	470	150	NA	13	8	18	NA	NA	NA	NA	NA	NA
CADMIUM	7440439	nr	11	18	94	19	0.26	**22**	NA	< 0.4	< 0.4	< 0.4	NA	NA	NA	NA	NA	NA
CHROMIUM (+3) (By Calculation)	16065-83-1	nr	10,000	10,000	10,000	10,000	nr	250	NA	11	9	14	NA	NA	NA	NA	NA	NA
LEAD	7439-92-1	10,000	340	530	1,100	950	32	**410**	NA	5.6	4.6	5.3	NA	NA	NA	NA	NA	NA
MERCURY	7487947	nr	51	85	510	930	nr	<0.19	NA	<0.19	<0.19	<0.19	NA	NA	NA	NA	NA	NA
SILVER	7440224	nr	850	1,400	8,500	1,500	nr	12	NA	<0.8	<0.7	< 0.8	NA	NA	NA	NA	NA	NA
Semi-volatile Organic Compounds - SVOCs (Analytical Method 8270)																		
NAPHTHALENE	91-20-3	1.7	2,500	4,200	10,000	10,000	nr	NA	0.17 *	< 0.05	< 0.05	< 0.05 M	NA	NA	NA	NA	NA	NA
PHENANTHRENE	85-01-8	97	3,700	6,200	10,000	8,900	0.83	NA	0.17*	< 0.05	< 0.05	< 0.05	NA	NA	NA	NA	NA	NA
FLUORANTHENE	206440	10,000	5,000	8,300	10,000	10,000	nr	NA	0.24*	< 0.05	< 0.05	< 0.05	NA	NA	NA	NA	NA	NA
PYRENE	129-00-0	10,000	3,700	6,200	10,000	10,000	2	NA	0.17*	< 0.05	< 0.05	< 0.05	NA	NA	NA	NA	NA	NA

Notes:

mg/kg-milligram per kilogram, ug/g -micrograms per gram, nr = not regulated, BDL-Below Detection Limit, NA - Not Analyzed

Concentration exceeds most stringent RAG

Concentration exceeds multiple scenario RAGs

MEDEP = Maine Department of Environmental Protection

2016 MEDEP RAGs = Maine Remedial Action Guidelines for Sites Contaminated with Hazardous Substances, Revised February 5, 2016

*-Surrogate showed recovery outside the acceptance criteria limits

**- Surrogate diluted out of calibration range

***-diluted required due to matrix interferrence

Table 1
Solid Material Sample Results Compared with MEDEP Hazardous Substance RAGs in ug/g or ug/wipe

Analyte	CAS No.	SOIL (mg/kg) 2016 MEDEP (RAGs)						BM-14A	BM-15	BM-33	BM-85 Carpet	BM-3-C	BM-5-B	BM-5-C	153-1 Wipe Dup	153-3 Wipe	153-3 Carpet
		Leaching to Groundwater	Residential	Park User	Commercial Worker	Construction Worker	Background										
Metals (Analytical Methods 6010/7000)																	
ARSENIC	7440382	nr	1.4	2.3	4.2	42	16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	7440393	nr	10,000	10,000	10,000	10,000	470	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	7440439	nr	11	18	94	19	0.26	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM (+3) (By Calculation)	16065-83-1	nr	10,000	10,000	10,000	10,000	nr	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	7439-92-1	10,000	340	530	1,100	950	32	NA	**550**	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	7487947	nr	51	85	510	930	nr	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.19**
SILVER	7440224	nr	850	1,400	8,500	1,500	nr	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semi-volatile Organic Compounds - SVOCs (Analytical Method 8270)																	
NAPHTHALENE	91-20-3	1.7	2,500	4,200	10,000	10,000	nr	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	85-01-8	97	3,700	6,200	10,000	8,900	0.83	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	206440	10,000	5,000	8,300	10,000	10,000	nr	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRENE	129-00-0	10,000	3,700	6,200	10,000	10,000	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

mg/kg-milligram per kilogram, ug/g -micrograms per gram, nr = not regulated, BDL-Below Detection Limit

Concentration exceeds most stringent RAG

Concentration exceeds multiple scenario RAGs

MEDEP = Maine Department of Environmental Protection

2016 MEDEP RAGs = Maine Remedial Action Guidelines for Sites Contaminated with Hazardous Substances, Revised February 5, 2016

APPENDIX D

Laboratory Reports

Laboratory Report

Absolute Resource associates
124 Heritage Avenue Portsmouth NH 03801

Rich Campbell
Campbell Environmental Group
173 Gray Road
Falmouth, ME 04105

PO Number: None
Job ID: 34980
Date Received: 11/16/15

Project: HCPC/Corea 1014-253-00

Attached please find results for the analysis of the samples received on the date referenced above.

Unless otherwise noted in the attached report, the analyses performed met the requirements of Absolute Resource Associates' Quality Assurance Plan. The Standard Operating Procedures are based upon USEPA SW-846, USEPA Methods for Chemical Analysis of Water and Wastewater, Standard Methods for the Examination of Water and Wastewater and other recognized methodologies. The results contained in this report pertain only to the samples as indicated on the chain of custody.

Absolute Resource Associates maintains certification with the agencies listed below.

We appreciate the opportunity to provide laboratory services. If you have any questions regarding the enclosed report, please contact the laboratory and we will be glad to assist you.

Sincerely,
Absolute Resource Associates

(for)

Sue Sylvester
Principal, General Manager

Date of Approval: 12/10/2015
Total number of pages: 91

Absolute Resource Associates Certifications

New Hampshire	1732	Massachusetts	M-NH902
Maine	NH903		

Project ID: HCPC/Corea 1014-253-00

Lab ID: 34980

Sample Association Table

Field ID	Matrix	Date-Time Sampled	Lab#	Analysis
BM-20-B	Solid	11/12/2015 11:00	34980-001	
				PCBs in soil by 8082
				Percent Dry Matter for Sample Calc by SM2540B,G
BM-14-B	Solid	11/12/2015 12:45	34980-002	
				PCBs in soil by 8082
				Percent Dry Matter for Sample Calc by SM2540B,G
BM-14-C	Solid	11/12/2015 12:58	34980-003	
				PCBs in soil by 8082
				Percent Dry Matter for Sample Calc by SM2540B,G
BM-20-A	Solid	11/12/2015 10:40	34980-004	
				PCBs in soil by 8082
				Percent Dry Matter for Sample Calc by SM2540B,G
BM-20-C	Solid	11/12/2015 11:16	34980-005	
				PCBs in soil by 8082
				Percent Dry Matter for Sample Calc by SM2540B,G
BM-7-A DUP	Solid	11/13/2015 10:20	34980-006	
				PCBs in soil by 8082
				Percent Dry Matter for Sample Calc by SM2540B,G
BM-7-A	Solid	11/13/2015 10:20	34980-007	
				PCBs in soil by 8082
				Percent Dry Matter for Sample Calc by SM2540B,G
BM-5-C	Solid	11/12/2015 17:18	34980-008	
				PCBs in soil by 8082
				Percent Dry Matter for Sample Calc by SM2540B,G
BM-5-B	Solid	11/12/2015 16:55	34980-009	
				PCBs in soil by 8082
				Percent Dry Matter for Sample Calc by SM2540B,G
BM-5-A	Solid	11/12/2015 16:48	34980-010	
				PCBs in soil by 8082
				Percent Dry Matter for Sample Calc by SM2540B,G
BM-3-C	Solid	11/12/2015 15:00	34980-011	
				PCBs in soil by 8082
				Percent Dry Matter for Sample Calc by SM2540B,G
BM-3-B	Solid	11/12/2015 14:42	34980-012	
				PCBs in soil by 8082
				Percent Dry Matter for Sample Calc by SM2540B,G
BM-3-A	Solid	11/12/2015 14:30	34980-013	
				PCBs in soil by 8082
				Percent Dry Matter for Sample Calc by SM2540B,G
BM-1-C	Solid	11/12/2015 13:53	34980-014	
				PCBs in soil by 8082
				Percent Dry Matter for Sample Calc by SM2540B,G
BM-1-B	Solid	11/12/2015 13:44	34980-015	
				PCBs in soil by 8082
				Percent Dry Matter for Sample Calc by SM2540B,G
BM-1-A	Solid	11/12/2015 13:23	34980-016	
				PCBs in soil by 8082
				Percent Dry Matter for Sample Calc by SM2540B,G
BM-2	Solid	11/13/2015 11:30	34980-017	
				PCBs in soil by 8082
				Percent Dry Matter for Sample Calc by SM2540B,G
BM-30	Solid	11/13/2015 15:30	34980-018	

Absolute Resource associates

Project ID: HCPC/Corea 1014-253-00
Lab ID: 34980

Sample Association Table

Field ID	Matrix	Date-Time Sampled	Lab#	Analysis
BM-30	Solid	11/13/2015 15:30	34980-018	
				PCBs in soil by 8082
				Percent Dry Matter for Sample Calc by SM2540B,G
BM-31	Solid	11/13/2015 15:40	34980-019	
				PCBs in soil by 8082
				Percent Dry Matter for Sample Calc by SM2540B,G
BM-32	Solid	11/13/2015 15:45	34980-020	
				PCBs in soil by 8082
				Percent Dry Matter for Sample Calc by SM2540B,G
BM-33	Solid	11/13/2015 15:50	34980-021	
				PCBs in soil by 8082
				Percent Dry Matter for Sample Calc by SM2540B,G
BM-34	Solid	11/13/2015 15:55	34980-022	
				PCBs in soil by 8082
				Percent Dry Matter for Sample Calc by SM2540B,G
BM-12	Solid	11/13/2015 12:45	34980-023	
				PCBs in soil by 8082
				Percent Dry Matter for Sample Calc by SM2540B,G
BM-3	Solid	11/13/2015 11:45	34980-024	
				PCBs in soil by 8082
				Percent Dry Matter for Sample Calc by SM2540B,G
BM-4	Solid	11/13/2015 11:49	34980-025	
				PCBs in soil by 8082
				Percent Dry Matter for Sample Calc by SM2540B,G
BM-6	Solid	11/13/2015 11:53	34980-026	
				PCBs in soil by 8082
				Percent Dry Matter for Sample Calc by SM2540B,G
BM-85 Carpet	Solid	11/13/2015 13:25	34980-027	
				PCBs in soil by 8082
				Percent Dry Matter for Sample Calc by SM2540B,G
BM-6 DUP	Solid	11/13/2015 11:53	34980-028	
				PCBs in soil by 8082
				Percent Dry Matter for Sample Calc by SM2540B,G
BM-11	Solid	11/13/2015 12:40	34980-029	
				PCBs in soil by 8082
				Percent Dry Matter for Sample Calc by SM2540B,G
BM-10	Solid	11/13/2015 12:30	34980-030	
				PCBs in soil by 8082
				Percent Dry Matter for Sample Calc by SM2540B,G
BM-15	Solid	11/13/2015 13:45	34980-031	
				Solid Digestion for ICP Analysis
				Lead in solids by 6010
				Percent Dry Matter for Sample Calc by SM2540B,G
SW-1 DUP	Water	11/13/2015 7:30	34980-032	
				Pesticides in water by 8081
				Herbicide screen in water (subcontract)
LS-9	Solid	11/12/2015 12:15	34980-033	
				EPH in solids by MADEP Method
				Percent Dry Matter for Sample Calc by SM2540B,G
LS-14	Solid	11/12/2015 12:26	34980-034	
				EPH in solids by MADEP Method
				Percent Dry Matter for Sample Calc by SM2540B,G

Absolute Resource associates

Project ID: HCPC/Corea 1014-253-00
Lab ID: 34980

Sample Association Table

Field ID	Matrix	Date-Time Sampled	Lab#	Analysis
LS-20	Solid	11/12/2015 13:05	34980-035	
				EPH in solids by MADEP Method
				Percent Dry Matter for Sample Calc by SM2540B,G
LS-22	Solid	11/12/2015 13:20	34980-036	
				EPH in solids by MADEP Method
				Percent Dry Matter for Sample Calc by SM2540B,G
LS-22 DUP	Solid	11/12/2015 15:20	34980-037	
				EPH in solids by MADEP Method
				Percent Dry Matter for Sample Calc by SM2540B,G
LS-29	Solid	11/12/2015 16:40	34980-038	
				EPH in solids by MADEP Method
				Percent Dry Matter for Sample Calc by SM2540B,G
LS-32	Solid	11/12/2015 16:55	34980-039	
				EPH in solids by MADEP Method
				Percent Dry Matter for Sample Calc by SM2540B,G
LS-34	Solid	11/12/2015 17:00	34980-040	
				EPH in solids by MADEP Method
				Percent Dry Matter for Sample Calc by SM2540B,G
Eq Blk Knife	Water	11/13/2015 16:15	34980-041	
				Mercury in water by 7470
Eq Blk Chisel	Water	11/13/2015 16:20	34980-042	
				PCBs in water by 8082
153-1 Carpet DUP	Solid	11/13/2015 15:45	34980-043	
				Mercury in solids by 7471
				Percent Dry Matter for Sample Calc by SM2540B,G
153-1 Carpet	Solid	11/13/2015 15:45	34980-044	
				Mercury in solids by 7471
				Percent Dry Matter for Sample Calc by SM2540B,G
153-3 Carpet	Solid	11/13/2015 16:15	34980-045	
				Mercury in solids by 7471
				Percent Dry Matter for Sample Calc by SM2540B,G
153-2 Carpet	Solid	11/13/2015 16:00	34980-046	
				Mercury in solids by 7471
				Percent Dry Matter for Sample Calc by SM2540B,G
153-2 Wipe	Wipe	11/13/2015 16:00	34980-047	
				Mercury in wipe by 7471
153-3 Wipe	Wipe	11/13/2015 16:15	34980-048	
				Mercury in wipe by 7471
153-1 Wipe	Wipe	11/13/2015 15:45	34980-049	
				Mercury in wipe by 7471
153-1 Wipe DUP	Wipe	11/13/2015 15:45	34980-050	
				Mercury in wipe by 7471
85 Carpet Wipe	Wipe	11/13/2015 13:25	34980-051	
				Mercury in wipe by 7471
153-1 TCLP	TCLP	11/13/2015 15:45	34980-052	
				TCLP Extraction
				Mercury in water by 7470
SS-1	Solid	11/13/2015 11:00	34980-053	
				Pesticides in soil by 8081
				Percent Dry Matter for Sample Calc by SM2540B,G
				Herbicides (subcontract)
SS-2	Solid	11/13/2015 11:15	34980-054	

Absolute Resource associates

Project ID: HCPC/Corea 1014-253-00

Lab ID: 34980

Sample Association Table

Field ID	Matrix	Date-Time Sampled	Lab#	Analysis
SS-2	Solid	11/13/2015 11:15	34980-054	
				Pesticides in soil by 8081
				Percent Dry Matter for Sample Calc by SM2540B,G
				Herbicides (subcontract)
SS-3	Solid	11/13/2015 11:02	34980-055	
				Soil Digestion for ICP Analysis
				Silver in solids by 6010
				Arsenic in solids by 6010
				Barium in solids by 6010
				Cadmium in solids by 6010
				Chromium in solids by 6010
				Mercury in solids by 7471
				Lead in solids by 6010
				Selenium in solids by 6010
				Percent Dry Matter for Sample Calc by SM2540B,G
				VOCs in solids by 8260
SS-4	Solid	11/13/2015 15:00	34980-056	
				Acid & Base/Neutral Extractables in solid by 8270
				Percent Dry Matter for Sample Calc by SM2540B,G
				VOCs in solids by 8260
SS-5	Solid	11/13/2015 11:13	34980-057	
				Pesticides in soil by 8081
				Percent Dry Matter for Sample Calc by SM2540B,G
				Herbicides (subcontract)
SS-5 DUP	Solid	11/13/2015 9:30	34980-058	
				Pesticides in soil by 8081
				Percent Dry Matter for Sample Calc by SM2540B,G
				Herbicides (subcontract)
SS-6	Solid	11/13/2015 9:42	34980-059	
				Pesticides in soil by 8081
				Percent Dry Matter for Sample Calc by SM2540B,G
				Herbicides (subcontract)
TP-1	Solid	11/13/2015 11:30	34980-060	
				Acid & Base/Neutral Extractables in solid by 8270
				Soil Digestion for ICP Analysis
				Silver in solids by 6010
				Arsenic in solids by 6010
				Barium in solids by 6010
				Cadmium in solids by 6010
				Chromium in solids by 6010
				Mercury in solids by 7471
				Lead in solids by 6010
				Selenium in solids by 6010
				Percent Dry Matter for Sample Calc by SM2540B,G
				VOCs in solids by 8260
TP-1DUP	Solid	11/13/2015 11:30	34980-061	
				Acid & Base/Neutral Extractables in solid by 8270
				Soil Digestion for ICP Analysis
				Silver in solids by 6010
				Arsenic in solids by 6010
				Barium in solids by 6010
				Cadmium in solids by 6010

Absolute Resource associates

Project ID: HCPC/Corea 1014-253-00

Lab ID: 34980

Sample Association Table

Field ID	Matrix	Date-Time Sampled	Lab#	Analysis
TP-1DUP	Solid	11/13/2015 11:30	34980-061	
				Chromium in solids by 6010
				Mercury in solids by 7471
				Lead in solids by 6010
				Selenium in solids by 6010
				Percent Dry Matter for Sample Calc by SM2540B,G
				VOCs in solids by 8260
TP-2	Solid	11/13/2015 11:45	34980-062	
				Acid & Base/Neutral Extractables in solid by 8270
				Soil Digestion for ICP Analysis
				Silver in solids by 6010
				Arsenic in solids by 6010
				Barium in solids by 6010
				Cadmium in solids by 6010
				Chromium in solids by 6010
				Mercury in solids by 7471
				Lead in solids by 6010
				Selenium in solids by 6010
				Percent Dry Matter for Sample Calc by SM2540B,G
				VOCs in solids by 8260
SW-1	Water	11/13/2015 7:30	34980-063	
				Pesticides in water by 8081
				Herbicide screen in water (subcontract)
Trip Blank	Solid	11/12/2015 0:00	34980-064	
				VOCs in solids by 8260
BM-14A	Solid	11/12/2015 12:32	34980-065	
				PCBs in soil by 8082
				Percent Dry Matter for Sample Calc by SM2540B,G

Absolute Resource associates

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980
Sample#: 34980-055
Sample ID: SS-3
Matrix: Solid Percent Dry: 85.1% Results expressed on a dry weight basis.
Sampled: 11/13/15 11:02

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
dichlorodifluoromethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
chloromethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
vinyl chloride	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
bromomethane	< 0.3	0.3	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
chloroethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
trichlorofluoromethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
diethyl ether	< 0.6	0.6	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
acetone	< 3	3	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
1,1-dichloroethene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
methylene chloride	< 0.3	0.3	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
carbon disulfide	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
methyl t-butyl ether (MTBE)	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
trans-1,2-dichloroethene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
1,1-dichloroethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
2-butanone (MEK)	< 0.4	0.4	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
2,2-dichloropropane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
cis-1,2-dichloroethene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
chloroform	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
bromochloromethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
tetrahydrofuran (THF)	< 0.6	0.6	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
1,1,1-trichloroethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
1,1-dichloropropene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
carbon tetrachloride	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
1,2-dichloroethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
benzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
trichloroethene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
1,2-dichloropropane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
bromodichloromethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
dibromomethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
4-methyl-2-pentanone (MIBK)	< 0.5	0.5	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
cis-1,3-dichloropropene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
toluene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
trans-1,3-dichloropropene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
2-hexanone	< 0.6	0.6	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
1,1,2-trichloroethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
1,3-dichloropropane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
tetrachloroethene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
dibromochloromethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
1,2-dibromoethane (EDB)	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
chlorobenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
1,1,1,2-tetrachloroethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
ethylbenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
m&p-xylenes	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C

Absolute Resource associates

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980
Sample#: 34980-055
Sample ID: SS-3
Matrix: Solid Percent Dry: 85.1% Results expressed on a dry weight basis.
Sampled: 11/13/15 11:02

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
o-xylene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
styrene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
bromoform	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
isopropylbenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
1,1,2,2-tetrachloroethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
1,2,3-trichloropropane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
n-propylbenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
bromobenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
1,3,5-trimethylbenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
2-chlorotoluene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
4-chlorotoluene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
tert-butylbenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
1,2,4-trimethylbenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
sec-butylbenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
1,3-dichlorobenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
4-isopropyltoluene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
1,4-dichlorobenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
1,2-dichlorobenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
n-butylbenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
1,2-dibromo-3-chloropropane (DBCP)	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
1,2,4-trichlorobenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
hexachlorobutadiene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
naphthalene	< 0.3	0.3	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
1,2,3-trichlorobenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**88**	78-114	%	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
toluene-D8 SUR	**103**	88-110	%	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
4-bromofluorobenzene SUR	**103**	86-115	%	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C
a,a,a-trifluorotoluene SUR	**113**	70-130	%	1	LMM	11/23/15	8401	11/23/15	19:45	SW5035A8260C

Absolute Resource associates

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980
Sample#: 34980-056
Sample ID: SS-4
Matrix: Solid Percent Dry: 72.3% Results expressed on a dry weight basis.
Sampled: 11/13/15 15:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
dichlorodifluoromethane	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
chloromethane	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
vinyl chloride	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
bromomethane	< 0.4	0.4	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
chloroethane	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
trichlorofluoromethane	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
diethyl ether	< 0.9	0.9	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
acetone	< 4	4	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
1,1-dichloroethene	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
methylene chloride	< 0.4	0.4	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
carbon disulfide	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
methyl t-butyl ether (MTBE)	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
trans-1,2-dichloroethene	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
1,1-dichloroethane	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
2-butanone (MEK)	< 0.5	0.5	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
2,2-dichloropropane	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
cis-1,2-dichloroethene	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
chloroform	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
bromochloromethane	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
tetrahydrofuran (THF)	< 0.9	0.9	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
1,1,1-trichloroethane	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
1,1-dichloropropene	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
carbon tetrachloride	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
1,2-dichloroethane	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
benzene	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
trichloroethene	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
1,2-dichloropropane	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
bromodichloromethane	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
dibromomethane	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
4-methyl-2-pentanone (MIBK)	< 0.8	0.8	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
cis-1,3-dichloropropene	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
toluene	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
trans-1,3-dichloropropene	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
2-hexanone	< 0.9	0.9	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
1,1,2-trichloroethane	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
1,3-dichloropropane	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
tetrachloroethene	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
dibromochloromethane	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
1,2-dibromoethane (EDB)	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
chlorobenzene	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
1,1,1,2-tetrachloroethane	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
ethylbenzene	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
m&p-xylenes	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C

Absolute Resource associates

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980
Sample#: 34980-056
Sample ID: SS-4
Matrix: Solid Percent Dry: 72.3% Results expressed on a dry weight basis.
Sampled: 11/13/15 15:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
o-xylene	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
styrene	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
bromoform	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
isopropylbenzene	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
1,1,2,2-tetrachloroethane	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
1,2,3-trichloropropane	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
n-propylbenzene	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
bromobenzene	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
1,3,5-trimethylbenzene	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
2-chlorotoluene	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
4-chlorotoluene	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
tert-butylbenzene	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
1,2,4-trimethylbenzene	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
sec-butylbenzene	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
1,3-dichlorobenzene	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
4-isopropyltoluene	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
1,4-dichlorobenzene	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
1,2-dichlorobenzene	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
n-butylbenzene	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
1,2-dibromo-3-chloropropane (DBCP)	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
1,2,4-trichlorobenzene	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
hexachlorobutadiene	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
naphthalene	< 0.4	0.4	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
1,2,3-trichlorobenzene	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**88**	78-114	%	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
toluene-D8 SUR	**103**	88-110	%	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
4-bromofluorobenzene SUR	**101**	86-115	%	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C
a,a,a-trifluorotoluene SUR	**114**	70-130	%	1	LMM	11/23/15	8401	11/23/15	20:13	SW5035A8260C

Absolute Resource associates

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980
Sample#: 34980-060
Sample ID: TP-1
Matrix: Solid Percent Dry: 92.6% Results expressed on a dry weight basis.
Sampled: 11/13/15 11:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
dichlorodifluoromethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
chloromethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
vinyl chloride	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
bromomethane	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
chloroethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
trichlorofluoromethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
diethyl ether	< 0.4	0.4	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
acetone	< 2	2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
1,1-dichloroethene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
methylene chloride	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
carbon disulfide	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
methyl t-butyl ether (MTBE)	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
trans-1,2-dichloroethene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
1,1-dichloroethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
2-butanone (MEK)	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
2,2-dichloropropane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
cis-1,2-dichloroethene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
chloroform	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
bromochloromethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
tetrahydrofuran (THF)	< 0.4	0.4	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
1,1,1-trichloroethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
1,1-dichloropropene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
carbon tetrachloride	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
1,2-dichloroethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
benzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
trichloroethene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
1,2-dichloropropane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
bromodichloromethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
dibromomethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
4-methyl-2-pentanone (MIBK)	< 0.4	0.4	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
cis-1,3-dichloropropene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
toluene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
trans-1,3-dichloropropene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
2-hexanone	< 0.4	0.4	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
1,1,2-trichloroethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
1,3-dichloropropane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
tetrachloroethene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
dibromochloromethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
1,2-dibromoethane (EDB)	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
chlorobenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
1,1,1,2-tetrachloroethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
ethylbenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
m&p-xylenes	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C

Absolute Resource associates

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980
Sample#: 34980-060
Sample ID: TP-1
Matrix: Solid Percent Dry: 92.6% Results expressed on a dry weight basis.
Sampled: 11/13/15 11:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
o-xylene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
styrene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
bromoform	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
isopropylbenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
1,1,2,2-tetrachloroethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
1,2,3-trichloropropane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
n-propylbenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
bromobenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
1,3,5-trimethylbenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
2-chlorotoluene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
4-chlorotoluene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
tert-butylbenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
1,2,4-trimethylbenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
sec-butylbenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
1,3-dichlorobenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
4-isopropyltoluene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
1,4-dichlorobenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
1,2-dichlorobenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
n-butylbenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
1,2-dibromo-3-chloropropane (DBCP)	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
1,2,4-trichlorobenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
hexachlorobutadiene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
naphthalene	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
1,2,3-trichlorobenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**86**	78-114	%	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
toluene-D8 SUR	**103**	88-110	%	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
4-bromofluorobenzene SUR	**103**	86-115	%	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C
a,a,a-trifluorotoluene SUR	**111**	70-130	%	1	LMM	11/23/15	8401	11/23/15	20:41	SW5035A8260C

Absolute Resource associates

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980
Sample#: 34980-061
Sample ID: TP-1DUP
Matrix: Solid Percent Dry: 93.9% Results expressed on a dry weight basis.
Sampled: 11/13/15 11:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
dichlorodifluoromethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
chloromethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
vinyl chloride	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
bromomethane	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
chloroethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
trichlorofluoromethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
diethyl ether	< 0.4	0.4	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
acetone	< 2	2	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
1,1-dichloroethene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
methylene chloride	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
carbon disulfide	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
methyl t-butyl ether (MTBE)	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
trans-1,2-dichloroethene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
1,1-dichloroethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
2-butanone (MEK)	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
2,2-dichloropropane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
cis-1,2-dichloroethene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
chloroform	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
bromochloromethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
tetrahydrofuran (THF)	< 0.4	0.4	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
1,1,1-trichloroethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
1,1-dichloropropene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
carbon tetrachloride	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
1,2-dichloroethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
benzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
trichloroethene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
1,2-dichloropropane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
bromodichloromethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
dibromomethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
4-methyl-2-pentanone (MIBK)	< 0.3	0.3	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
cis-1,3-dichloropropene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
toluene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
trans-1,3-dichloropropene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
2-hexanone	< 0.4	0.4	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
1,1,2-trichloroethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
1,3-dichloropropane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
tetrachloroethene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
dibromochloromethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
1,2-dibromoethane (EDB)	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
chlorobenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
1,1,1,2-tetrachloroethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
ethylbenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
m&p-xylenes	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C

Absolute Resource associates

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980
Sample#: 34980-061
Sample ID: TP-1DUP
Matrix: Solid Percent Dry: 93.9% Results expressed on a dry weight basis.
Sampled: 11/13/15 11:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
o-xylene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
styrene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
bromoform	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
isopropylbenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
1,1,2,2-tetrachloroethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
1,2,3-trichloropropane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
n-propylbenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
bromobenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
1,3,5-trimethylbenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
2-chlorotoluene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
4-chlorotoluene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
tert-butylbenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
1,2,4-trimethylbenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
sec-butylbenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
1,3-dichlorobenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
4-isopropyltoluene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
1,4-dichlorobenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
1,2-dichlorobenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
n-butylbenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
1,2-dibromo-3-chloropropane (DBCP)	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
1,2,4-trichlorobenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
hexachlorobutadiene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
naphthalene	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
1,2,3-trichlorobenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**86**	78-114	%	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
toluene-D8 SUR	**103**	88-110	%	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
4-bromofluorobenzene SUR	**100**	86-115	%	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C
a,a,a-trifluorotoluene SUR	**107**	70-130	%	1	LMM	11/23/15	8401	11/23/15	21:09	SW5035A8260C

Absolute Resource associates

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980
Sample#: 34980-062
Sample ID: TP-2
Matrix: Solid Percent Dry: 90.1% Results expressed on a dry weight basis.
Sampled: 11/13/15 11:45

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
dichlorodifluoromethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
chloromethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
vinyl chloride	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
bromomethane	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
chloroethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
trichlorofluoromethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
diethyl ether	< 0.4	0.4	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
acetone	< 2	2	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
1,1-dichloroethene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
methylene chloride	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
carbon disulfide	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
methyl t-butyl ether (MTBE)	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
trans-1,2-dichloroethene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
1,1-dichloroethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
2-butanone (MEK)	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
2,2-dichloropropane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
cis-1,2-dichloroethene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
chloroform	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
bromochloromethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
tetrahydrofuran (THF)	< 0.4	0.4	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
1,1,1-trichloroethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
1,1-dichloropropene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
carbon tetrachloride	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
1,2-dichloroethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
benzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
trichloroethene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
1,2-dichloropropane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
bromodichloromethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
dibromomethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
4-methyl-2-pentanone (MIBK)	< 0.3	0.3	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
cis-1,3-dichloropropene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
toluene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
trans-1,3-dichloropropene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
2-hexanone	< 0.4	0.4	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
1,1,2-trichloroethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
1,3-dichloropropane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
tetrachloroethene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
dibromochloromethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
1,2-dibromoethane (EDB)	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
chlorobenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
1,1,1,2-tetrachloroethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
ethylbenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
m&p-xylenes	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C

Absolute Resource associates

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980
Sample#: 34980-062
Sample ID: TP-2
Matrix: Solid Percent Dry: 90.1% Results expressed on a dry weight basis.
Sampled: 11/13/15 11:45

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
o-xylene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
styrene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
bromoform	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
isopropylbenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
1,1,2,2-tetrachloroethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
1,2,3-trichloropropane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
n-propylbenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
bromobenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
1,3,5-trimethylbenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
2-chlorotoluene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
4-chlorotoluene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
tert-butylbenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
1,2,4-trimethylbenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
sec-butylbenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
1,3-dichlorobenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
4-isopropyltoluene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
1,4-dichlorobenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
1,2-dichlorobenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
n-butylbenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
1,2-dibromo-3-chloropropane (DBCP)	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
1,2,4-trichlorobenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
hexachlorobutadiene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
naphthalene	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
1,2,3-trichlorobenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**85**	78-114	%	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
toluene-D8 SUR	**101**	88-110	%	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
4-bromofluorobenzene SUR	**101**	86-115	%	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C
a,a,a-trifluorotoluene SUR	**111**	70-130	%	1	LMM	11/23/15	8401	11/23/15	21:38	SW5035A8260C

Absolute Resource associates

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980
Sample#: 34980-064
Sample ID: Trip Blank
Matrix: Solid
Sampled: 11/12/15 0:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
dichlorodifluoromethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
chloromethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
vinyl chloride	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
bromomethane	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
chloroethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
trichlorofluoromethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
diethyl ether	< 0.5	0.5	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
acetone	< 2	2	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
1,1-dichloroethene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
methylene chloride	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
carbon disulfide	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
methyl t-butyl ether (MTBE)	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
trans-1,2-dichloroethene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
1,1-dichloroethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
2-butanone (MEK)	< 0.3	0.3	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
2,2-dichloropropane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
cis-1,2-dichloroethene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
chloroform	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
bromochloromethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
tetrahydrofuran (THF)	< 0.5	0.5	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
1,1,1-trichloroethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
1,1-dichloropropene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
carbon tetrachloride	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
1,2-dichloroethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
benzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
trichloroethene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
1,2-dichloropropane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
bromodichloromethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
dibromomethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
4-methyl-2-pentanone (MIBK)	< 0.4	0.4	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
cis-1,3-dichloropropene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
toluene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
trans-1,3-dichloropropene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
2-hexanone	< 0.5	0.5	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
1,1,2-trichloroethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
1,3-dichloropropane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
tetrachloroethene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
dibromochloromethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
1,2-dibromoethane (EDB)	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
chlorobenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
1,1,1,2-tetrachloroethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
ethylbenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
m&p-xylenes	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C

Absolute Resource associates

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980
Sample#: 34980-064
Sample ID: Trip Blank
Matrix: Solid
Sampled: 11/12/15 0:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
o-xylene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
styrene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
bromoform	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
isopropylbenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
1,1,2,2-tetrachloroethane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
1,2,3-trichloropropane	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
n-propylbenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
bromobenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
1,3,5-trimethylbenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
2-chlorotoluene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
4-chlorotoluene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
tert-butylbenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
1,2,4-trimethylbenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
sec-butylbenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
1,3-dichlorobenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
4-isopropyltoluene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
1,4-dichlorobenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
1,2-dichlorobenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
n-butylbenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
1,2-dibromo-3-chloropropane (DBCP)	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
1,2,4-trichlorobenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
hexachlorobutadiene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
naphthalene	< 0.2	0.2	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
1,2,3-trichlorobenzene	< 0.1	0.1	ug/g	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
Surrogate Recovery		**Limits**								
dibromofluoromethane SUR	**91**	78-114	%	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
toluene-D8 SUR	**101**	88-110	%	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
4-bromofluorobenzene SUR	**102**	86-115	%	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C
a,a,a-trifluorotoluene SUR	**108**	70-130	%	1	LMM	11/23/15	8401	11/23/15	19:17	SW5035A8260C

Absolute Resource associates

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980
Sample#: 34980-056
Sample ID: SS-4
Matrix: Solid Percent Dry: 72.3% Results expressed on a dry weight basis.
Sampled: 11/13/15 15:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
N-nitrosodimethylamine	< 0.3	0.3	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
aniline	< 0.3	0.3	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
phenol	< 0.3	0.3	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
2-chlorophenol	< 0.6	0.6	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
bis(2-chloroethyl)ether	< 0.3	0.3	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
1,3-dichlorobenzene	< 0.3	0.3	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
1,4-dichlorobenzene	< 0.3	0.3	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
1,2-dichlorobenzene	< 0.3	0.3	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
benzyl alcohol	< 0.3	0.3	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
2-methylphenol	< 0.3	0.3	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
bis(2-chloroisopropyl) ether	< 0.3	0.3	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
hexachloroethane	< 0.3	0.3	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
N-nitroso-di-N-propylamine	< 0.3	0.3	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
4-methylphenol	< 0.3	0.3	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
nitrobenzene	< 0.3	0.3	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
isophorone	< 0.6	0.6	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
2-nitrophenol	< 0.3	0.3	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
2,4-dimethylphenol	< 0.3	0.3	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
bis(2-chloroethoxy)methane	< 0.3	0.3	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
2,4-dichlorophenol	< 0.6	0.6	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
1,2,4-trichlorobenzene	< 0.6	0.6	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
naphthalene	**0.17**	0.06	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
benzoic acid	< 6	6	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
4-chloroaniline	< 0.3	0.3	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
hexachlorobutadiene	< 0.3	0.3	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
4-chloro-3-methylphenol	< 0.3	0.3	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
2-methylnaphthalene	< 0.06	0.06	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
hexachlorocyclopentadiene	< 1	1	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
2,4,6-trichlorophenol	< 0.3	0.3	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
2,4,5-trichlorophenol	< 0.3	0.3	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
2-chloronaphthalene	< 0.6	0.6	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
2-nitroaniline	< 0.3	0.3	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
acenaphthylene	< 0.06	0.06	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
dimethylphthalate	< 0.6	0.6	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
2,6-dinitrotoluene	< 0.3	0.3	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
2,4-dinitrotoluene	< 0.3	0.3	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
acenaphthene	< 0.06	0.06	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
3-nitroaniline	< 0.3	0.3	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
2,4-dinitrophenol	< 6	6	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
dibenzofuran	< 0.06	0.06	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
4-nitrophenol	< 3	3	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
fluorene	< 0.06	0.06	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
diethyl phthalate	< 0.6	0.6	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D

Absolute Resource associates

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980
Sample#: 34980-056
Sample ID: SS-4
Matrix: Solid Percent Dry: 72.3% Results expressed on a dry weight basis.
Sampled: 11/13/15 15:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
4-chlorophenyl phenyl ether	< 0.6	0.6	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
4-nitroaniline	< 0.6	0.6	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
4,6-dinitro-2-methylphenol	< 3	3	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
azobenzene	< 0.3	0.3	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
N-nitrosodiphenylamine	< 0.3	0.3	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
4-bromophenyl phenyl ether	< 0.3	0.3	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
hexachlorobenzene	< 0.3	0.3	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
pentachlorophenol	< 1	1	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
phenanthrene	**0.17**	0.06	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
anthracene	< 0.06	0.06	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
carbazole	< 0.3	0.3	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
di-n-butylphthalate	< 0.6	0.6	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
fluoranthene	**0.24**	0.06	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
benzidine	< 4	4	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
pyrene	**0.17**	0.06	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
butyl benzyl phthalate	< 0.6	0.6	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
benzo(a)anthracene	< 0.06	0.06	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
chrysene	< 0.06	0.06	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
3,3'-dichlorobenzidine	< 4	4	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
bis(2-ethylhexyl)phthalate	< 0.6	0.6	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
di-n-octyl phthalate	< 0.6	0.6	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
benzo(b)fluoranthene	< 0.06	0.06	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
benzo(k)fluoranthene	< 0.06	0.06	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
benzo(a)pyrene	< 0.06	0.06	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
indeno(1,2,3-cd)pyrene	< 0.06	0.06	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
dibenzo(a,h)anthracene	< 0.06	0.06	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
benzo(g,h,i)perylene	< 0.06	0.06	ug/g	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
Surrogate Recovery		**Limits**								
2-fluorophenol SUR	**42**	21-100	%	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
phenol-D5 SUR	**46**	10-102	%	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
2,4,6-tribromophenol SUR	**25**	10-123	%	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
nitrobenzene-D5 SUR	**35** *	35-114	%	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
2-fluorobiphenyl SUR	**44**	43-116	%	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D
p-terphenyl-D14 SUR	**32** *	33-141	%	1	AJD	11/17/15	8375	11/25/15	0:51	SW3546/8270D

**** The surrogate showed recovery outside the acceptance limits. Matrix interference suspected.***

Absolute Resource associates

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980
Sample#: 34980-060
Sample ID: TP-1
Matrix: Solid Percent Dry: 92.6% Results expressed on a dry weight basis.
Sampled: 11/13/15 11:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
N-nitrosodimethylamine	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
aniline	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
phenol	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
2-chlorophenol	< 0.5	0.5	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
bis(2-chloroethyl)ether	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
1,3-dichlorobenzene	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
1,4-dichlorobenzene	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
1,2-dichlorobenzene	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
benzyl alcohol	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
2-methylphenol	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
bis(2-chloroisopropyl) ether	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
hexachloroethane	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
N-nitroso-di-N-propylamine	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
4-methylphenol	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
nitrobenzene	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
isophorone	< 0.5	0.5	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
2-nitrophenol	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
2,4-dimethylphenol	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
bis(2-chloroethoxy)methane	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
2,4-dichlorophenol	< 0.5	0.5	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
1,2,4-trichlorobenzene	< 0.5	0.5	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
naphthalene	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
benzoic acid	< 5	5	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
4-chloroaniline	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
hexachlorobutadiene	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
4-chloro-3-methylphenol	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
2-methylnaphthalene	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
hexachlorocyclopentadiene	< 1	1	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
2,4,6-trichlorophenol	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
2,4,5-trichlorophenol	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
2-chloronaphthalene	< 0.5	0.5	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
2-nitroaniline	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
acenaphthylene	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
dimethylphthalate	< 0.5	0.5	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
2,6-dinitrotoluene	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
2,4-dinitrotoluene	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
acenaphthene	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
3-nitroaniline	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
2,4-dinitrophenol	< 5	5	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
dibenzofuran	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
4-nitrophenol	< 2	2	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
fluorene	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
diethyl phthalate	< 0.5	0.5	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D

Absolute Resource associates

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980
Sample#: 34980-060
Sample ID: TP-1
Matrix: Solid Percent Dry: 92.6% Results expressed on a dry weight basis.
Sampled: 11/13/15 11:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
4-chlorophenyl phenyl ether	< 0.5	0.5	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
4-nitroaniline	< 0.5	0.5	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
4,6-dinitro-2-methylphenol	< 2	2	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
azobenzene	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
N-nitrosodiphenylamine	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
4-bromophenyl phenyl ether	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
hexachlorobenzene	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
pentachlorophenol	< 1	1	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
phenanthrene	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
anthracene	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
carbazole	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
di-n-butylphthalate	< 0.5	0.5	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
fluoranthene	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
benzidine	< 3	3	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
pyrene	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
butyl benzyl phthalate	< 0.5	0.5	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
benzo(a)anthracene	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
chrysene	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
3,3'-dichlorobenzidine	< 3	3	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
bis(2-ethylhexyl)phthalate	< 0.5	0.5	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
di-n-octyl phthalate	< 0.5	0.5	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
benzo(b)fluoranthene	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
benzo(k)fluoranthene	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
benzo(a)pyrene	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
indeno(1,2,3-cd)pyrene	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
dibenzo(a,h)anthracene	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
benzo(g,h,i)perylene	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
Surrogate Recovery		**Limits**								
2-fluorophenol SUR	**60**	21-100	%	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
phenol-D5 SUR	**63**	10-102	%	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
2,4,6-tribromophenol SUR	**88**	10-123	%	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
nitrobenzene-D5 SUR	**53**	35-114	%	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
2-fluorobiphenyl SUR	**53**	43-116	%	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D
p-terphenyl-D14 SUR	**71**	33-141	%	1	AJD	11/17/15	8375	11/25/15	0:14	SW3546/8270D

Absolute Resource associates

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980
Sample#: 34980-061
Sample ID: TP-1DUP
Matrix: Solid Percent Dry: 93.9% Results expressed on a dry weight basis.
Sampled: 11/13/15 11:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
N-nitrosodimethylamine	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
aniline	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
phenol	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
2-chlorophenol	< 0.5	0.5	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
bis(2-chloroethyl)ether	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
1,3-dichlorobenzene	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
1,4-dichlorobenzene	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
1,2-dichlorobenzene	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
benzyl alcohol	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
2-methylphenol	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
bis(2-chloroisopropyl) ether	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
hexachloroethane	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
N-nitroso-di-N-propylamine	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
4-methylphenol	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
nitrobenzene	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
isophorone	< 0.5	0.5	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
2-nitrophenol	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
2,4-dimethylphenol	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
bis(2-chloroethoxy)methane	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
2,4-dichlorophenol	< 0.5	0.5	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
1,2,4-trichlorobenzene	< 0.5	0.5	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
naphthalene	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
benzoic acid	< 5	5	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
4-chloroaniline	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
hexachlorobutadiene	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
4-chloro-3-methylphenol	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
2-methylnaphthalene	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
hexachlorocyclopentadiene	< 1	1	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
2,4,6-trichlorophenol	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
2,4,5-trichlorophenol	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
2-chloronaphthalene	< 0.5	0.5	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
2-nitroaniline	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
acenaphthylene	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
dimethylphthalate	< 0.5	0.5	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
2,6-dinitrotoluene	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
2,4-dinitrotoluene	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
acenaphthene	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
3-nitroaniline	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
2,4-dinitrophenol	< 5	5	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
dibenzofuran	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
4-nitrophenol	< 2	2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
fluorene	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
diethyl phthalate	< 0.5	0.5	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D

Absolute Resource associates

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980
Sample#: 34980-061
Sample ID: TP-1DUP
Matrix: Solid Percent Dry: 93.9% Results expressed on a dry weight basis.
Sampled: 11/13/15 11:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
4-chlorophenyl phenyl ether	< 0.5	0.5	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
4-nitroaniline	< 0.5	0.5	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
4,6-dinitro-2-methylphenol	< 2	2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
azobenzene	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
N-nitrosodiphenylamine	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
4-bromophenyl phenyl ether	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
hexachlorobenzene	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
pentachlorophenol	< 1	1	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
phenanthrene	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
anthracene	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
carbazole	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
di-n-butylphthalate	< 0.5	0.5	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
fluoranthene	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
benzidine	< 3	3	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
pyrene	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
butyl benzyl phthalate	< 0.5	0.5	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
benzo(a)anthracene	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
chrysene	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
3,3'-dichlorobenzidine	< 3	3	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
bis(2-ethylhexyl)phthalate	< 0.5	0.5	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
di-n-octyl phthalate	< 0.5	0.5	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
benzo(b)fluoranthene	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
benzo(k)fluoranthene	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
benzo(a)pyrene	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
indeno(1,2,3-cd)pyrene	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
dibenzo(a,h)anthracene	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
benzo(g,h,i)perylene	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
Surrogate Recovery		**Limits**								
2-fluorophenol SUR	**69**	21-100	%	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
phenol-D5 SUR	**73**	10-102	%	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
2,4,6-tribromophenol SUR	**90**	10-123	%	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
nitrobenzene-D5 SUR	**62**	35-114	%	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
2-fluorobiphenyl SUR	**61**	43-116	%	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D
p-terphenyl-D14 SUR	**69**	33-141	%	1	AJD	11/17/15	8375	11/24/15	23:37	SW3546/8270D

Absolute Resource associates

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980
Sample#: 34980-062
Sample ID: TP-2
Matrix: Solid Percent Dry: 90.1% Results expressed on a dry weight basis.
Sampled: 11/13/15 11:45

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
N-nitrosodimethylamine	< 0.2 M	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
aniline	< 0.2 M	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
phenol	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
2-chlorophenol	< 0.5	0.5	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
bis(2-chloroethyl)ether	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
1,3-dichlorobenzene	< 0.2 M	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
1,4-dichlorobenzene	< 0.2 M	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
1,2-dichlorobenzene	< 0.2 M	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
benzyl alcohol	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
2-methylphenol	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
bis(2-chloroisopropyl) ether	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
hexachloroethane	< 0.2 M	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
N-nitroso-di-N-propylamine	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
4-methylphenol	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
nitrobenzene	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
isophorone	< 0.5	0.5	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
2-nitrophenol	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
2,4-dimethylphenol	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
bis(2-chloroethoxy)methane	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
2,4-dichlorophenol	< 0.5	0.5	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
1,2,4-trichlorobenzene	< 0.5	0.5	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
naphthalene	< 0.05 M	0.05	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
benzoic acid	< 5	5	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
4-chloroaniline	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
hexachlorobutadiene	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
4-chloro-3-methylphenol	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
2-methylnaphthalene	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
hexachlorocyclopentadiene	< 1 M	1	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
2,4,6-trichlorophenol	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
2,4,5-trichlorophenol	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
2-chloronaphthalene	< 0.5	0.5	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
2-nitroaniline	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
acenaphthylene	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
dimethylphthalate	< 0.5	0.5	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
2,6-dinitrotoluene	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
2,4-dinitrotoluene	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
acenaphthene	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
3-nitroaniline	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
2,4-dinitrophenol	< 5	5	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
dibenzofuran	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
4-nitrophenol	< 2	2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
fluorene	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
diethyl phthalate	< 0.5	0.5	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D

Absolute Resource associates

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980
Sample#: 34980-062
Sample ID: TP-2
Matrix: Solid Percent Dry: 90.1% Results expressed on a dry weight basis.
Sampled: 11/13/15 11:45

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
4-chlorophenyl phenyl ether	< 0.5	0.5	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
4-nitroaniline	< 0.5	0.5	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
4,6-dinitro-2-methylphenol	< 2	2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
azobenzene	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
N-nitrosodiphenylamine	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
4-bromophenyl phenyl ether	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
hexachlorobenzene	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
pentachlorophenol	< 1	1	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
phenanthrene	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
anthracene	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
carbazole	< 0.2	0.2	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
di-n-butylphthalate	< 0.5	0.5	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
fluoranthene	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
benzidine	< 3	3	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
pyrene	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
butyl benzyl phthalate	< 0.5	0.5	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
benzo(a)anthracene	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
chrysene	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
3,3'-dichlorobenzidine	< 3	3	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
bis(2-ethylhexyl)phthalate	< 0.5	0.5	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
di-n-octyl phthalate	< 0.5	0.5	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
benzo(b)fluoranthene	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
benzo(k)fluoranthene	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
benzo(a)pyrene	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
indeno(1,2,3-cd)pyrene	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
dibenzo(a,h)anthracene	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
benzo(g,h,i)perylene	< 0.05	0.05	ug/g	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
Surrogate Recovery		**Limits**								
2-fluorophenol SUR	**67**	21-100	%	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
phenol-D5 SUR	**69**	10-102	%	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
2,4,6-tribromophenol SUR	**90**	10-123	%	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
nitrobenzene-D5 SUR	**58**	35-114	%	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
2-fluorobiphenyl SUR	**57**	43-116	%	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D
p-terphenyl-D14 SUR	**72**	33-141	%	1	AJD	11/17/15	8375	11/24/15	23:00	SW3546/8270D

M = The percent recovery for the matrix spike was outside the acceptance criteria.

Absolute Resource associates

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980
Sample#: 34980-032
Sample ID: SW-1 DUP
Matrix: Water
Sampled: 11/13/15 7:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
alpha-BHC	< 0.10	0.10	ug/L	1	AM	11/18/15	8383	11/19/15	15:13	SW3510C8081B
beta-BHC	< 0.10	0.10	ug/L	1	AM	11/18/15	8383	11/19/15	15:13	SW3510C8081B
delta-BHC	< 0.10	0.10	ug/L	1	AM	11/18/15	8383	11/19/15	15:13	SW3510C8081B
gamma-BHC (Lindane)	< 0.10	0.10	ug/L	1	AM	11/18/15	8383	11/19/15	15:13	SW3510C8081B
Heptachlor	< 0.10	0.10	ug/L	1	AM	11/18/15	8383	11/19/15	15:13	SW3510C8081B
Aldrin	< 0.10	0.10	ug/L	1	AM	11/18/15	8383	11/19/15	15:13	SW3510C8081B
Heptachlor Epoxide	< 0.10	0.10	ug/L	1	AM	11/18/15	8383	11/19/15	15:13	SW3510C8081B
Endosulfan I	< 0.10	0.10	ug/L	1	AM	11/18/15	8383	11/19/15	15:13	SW3510C8081B
Dieldrin	< 0.10	0.10	ug/L	1	AM	11/18/15	8383	11/19/15	15:13	SW3510C8081B
4,4'-DDE	< 0.10	0.10	ug/L	1	AM	11/18/15	8383	11/19/15	15:13	SW3510C8081B
Endrin	< 0.10	0.10	ug/L	1	AM	11/18/15	8383	11/19/15	15:13	SW3510C8081B
Endosulfan II	< 0.10	0.10	ug/L	1	AM	11/18/15	8383	11/19/15	15:13	SW3510C8081B
4,4'-DDD	< 0.10	0.10	ug/L	1	AM	11/18/15	8383	11/19/15	15:13	SW3510C8081B
Endosulfan Sulfate	< 0.10	0.10	ug/L	1	AM	11/18/15	8383	11/19/15	15:13	SW3510C8081B
4,4'-DDT	< 0.10	0.10	ug/L	1	AM	11/18/15	8383	11/19/15	15:13	SW3510C8081B
Methoxychlor	< 0.10	0.10	ug/L	1	AM	11/18/15	8383	11/19/15	15:13	SW3510C8081B
Endrin Ketone	< 0.10	0.10	ug/L	1	AM	11/18/15	8383	11/19/15	15:13	SW3510C8081B
Endrin Aldehyde	< 0.10	0.10	ug/L	1	AM	11/18/15	8383	11/19/15	15:13	SW3510C8081B
alpha-Chlordane	< 0.10	0.10	ug/L	1	AM	11/18/15	8383	11/19/15	15:13	SW3510C8081B
gamma-Chlordane	< 0.10	0.10	ug/L	1	AM	11/18/15	8383	11/19/15	15:13	SW3510C8081B
Toxaphene	< 1	1	ug/L	1	AM	11/18/15	8383	11/19/15	15:13	SW3510C8081B
Surrogate Recovery		**Limits**								
tetrachloro-m-xylene SUR	**64**	30-150	%	1	AM	11/18/15	8383	11/19/15	15:13	SW3510C8081B
decachlorobiphenyl SUR	**66**	30-150	%	1	AM	11/18/15	8383	11/19/15	15:13	SW3510C8081B

Absolute Resource associates

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980
Sample#: 34980-053
Sample ID: SS-1
Matrix: Solid Percent Dry: 96.8% Results expressed on a dry weight basis.
Sampled: 11/13/15 11:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
alpha-BHC	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	17:15	SW3546/8081B
beta-BHC	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	17:15	SW3546/8081B
delta-BHC	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	17:15	SW3546/8081B
gamma-BHC (Lindane)	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	17:15	SW3546/8081B
Heptachlor	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	17:15	SW3546/8081B
Aldrin	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	17:15	SW3546/8081B
Heptachlor Epoxide	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	17:15	SW3546/8081B
Endosulfan I	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	17:15	SW3546/8081B
Dieldrin	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	17:15	SW3546/8081B
4,4'-DDE	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	17:15	SW3546/8081B
Endrin	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	17:15	SW3546/8081B
Endosulfan II	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	17:15	SW3546/8081B
4,4'-DDD	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	17:15	SW3546/8081B
Endosulfan Sulfate	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	17:15	SW3546/8081B
4,4'-DDT	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	17:15	SW3546/8081B
Methoxychlor	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	17:15	SW3546/8081B
Endrin Ketone	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	17:15	SW3546/8081B
Endrin Aldehyde	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	17:15	SW3546/8081B
alpha-Chlordane	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	17:15	SW3546/8081B
gamma-Chlordane	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	17:15	SW3546/8081B
Toxaphene	< 0.2	0.2	ug/g	1	AM	11/19/15	8391	11/19/15	17:15	SW3546/8081B
Surrogate Recovery		**Limits**								
tetrachloro-m-xylene SUR	**64**	30-150	%	1	AM	11/19/15	8391	11/19/15	17:15	SW3546/8081B
decachlorobiphenyl SUR	**95**	30-150	%	1	AM	11/19/15	8391	11/19/15	17:15	SW3546/8081B

Absolute Resource associates

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980
Sample#: 34980-054
Sample ID: SS-2
Matrix: Solid Percent Dry: 89.8% Results expressed on a dry weight basis.
Sampled: 11/13/15 11:15

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
alpha-BHC	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	17:45	SW3546/8081B
beta-BHC	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	17:45	SW3546/8081B
delta-BHC	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	17:45	SW3546/8081B
gamma-BHC (Lindane)	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	17:45	SW3546/8081B
Heptachlor	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	17:45	SW3546/8081B
Aldrin	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	17:45	SW3546/8081B
Heptachlor Epoxide	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	17:45	SW3546/8081B
Endosulfan I	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	17:45	SW3546/8081B
Dieldrin	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	17:45	SW3546/8081B
4,4'-DDE	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	17:45	SW3546/8081B
Endrin	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	17:45	SW3546/8081B
Endosulfan II	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	17:45	SW3546/8081B
4,4'-DDD	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	17:45	SW3546/8081B
Endosulfan Sulfate	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	17:45	SW3546/8081B
4,4'-DDT	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	17:45	SW3546/8081B
Methoxychlor	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	17:45	SW3546/8081B
Endrin Ketone	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	17:45	SW3546/8081B
Endrin Aldehyde	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	17:45	SW3546/8081B
alpha-Chlordane	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	17:45	SW3546/8081B
gamma-Chlordane	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	17:45	SW3546/8081B
Toxaphene	< 0.2	0.2	ug/g	1	AM	11/19/15	8391	11/19/15	17:45	SW3546/8081B
Surrogate Recovery		**Limits**								
tetrachloro-m-xylene SUR	**58**	30-150	%	1	AM	11/19/15	8391	11/19/15	17:45	SW3546/8081B
decachlorobiphenyl SUR	**96**	30-150	%	1	AM	11/19/15	8391	11/19/15	17:45	SW3546/8081B

Absolute Resource associates

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980
Sample#: 34980-057
Sample ID: SS-5
Matrix: Solid Percent Dry: 95.7% Results expressed on a dry weight basis.
Sampled: 11/13/15 11:13

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
alpha-BHC	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	18:16	SW3546/8081B
beta-BHC	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	18:16	SW3546/8081B
delta-BHC	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	18:16	SW3546/8081B
gamma-BHC (Lindane)	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	18:16	SW3546/8081B
Heptachlor	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	18:16	SW3546/8081B
Aldrin	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	18:16	SW3546/8081B
Heptachlor Epoxide	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	18:16	SW3546/8081B
Endosulfan I	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	18:16	SW3546/8081B
Dieldrin	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	18:16	SW3546/8081B
4,4'-DDE	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	18:16	SW3546/8081B
Endrin	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	18:16	SW3546/8081B
Endosulfan II	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	18:16	SW3546/8081B
4,4'-DDD	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	18:16	SW3546/8081B
Endosulfan Sulfate	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	18:16	SW3546/8081B
4,4'-DDT	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	18:16	SW3546/8081B
Methoxychlor	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	18:16	SW3546/8081B
Endrin Ketone	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	18:16	SW3546/8081B
Endrin Aldehyde	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	18:16	SW3546/8081B
alpha-Chlordane	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	18:16	SW3546/8081B
gamma-Chlordane	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	18:16	SW3546/8081B
Toxaphene	< 0.2	0.2	ug/g	1	AM	11/19/15	8391	11/19/15	18:16	SW3546/8081B
Surrogate Recovery		**Limits**								
tetrachloro-m-xylene SUR	**62**	30-150	%	1	AM	11/19/15	8391	11/19/15	18:16	SW3546/8081B
decachlorobiphenyl SUR	**92**	30-150	%	1	AM	11/19/15	8391	11/19/15	18:16	SW3546/8081B

Absolute Resource associates

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980
Sample#: 34980-058
Sample ID: SS-5 DUP
Matrix: Solid Percent Dry: 95.1% Results expressed on a dry weight basis.
Sampled: 11/13/15 9:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
alpha-BHC	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	18:46	SW3546/8081B
beta-BHC	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	18:46	SW3546/8081B
delta-BHC	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	18:46	SW3546/8081B
gamma-BHC (Lindane)	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	18:46	SW3546/8081B
Heptachlor	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	18:46	SW3546/8081B
Aldrin	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	18:46	SW3546/8081B
Heptachlor Epoxide	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	18:46	SW3546/8081B
Endosulfan I	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	18:46	SW3546/8081B
Dieldrin	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	18:46	SW3546/8081B
4,4'-DDE	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	18:46	SW3546/8081B
Endrin	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	18:46	SW3546/8081B
Endosulfan II	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	18:46	SW3546/8081B
4,4'-DDD	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	18:46	SW3546/8081B
Endosulfan Sulfate	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	18:46	SW3546/8081B
4,4'-DDT	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	18:46	SW3546/8081B
Methoxychlor	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	18:46	SW3546/8081B
Endrin Ketone	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	18:46	SW3546/8081B
Endrin Aldehyde	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	18:46	SW3546/8081B
alpha-Chlordane	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	18:46	SW3546/8081B
gamma-Chlordane	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	18:46	SW3546/8081B
Toxaphene	< 0.2	0.2	ug/g	1	AM	11/19/15	8391	11/19/15	18:46	SW3546/8081B
Surrogate Recovery		**Limits**								
tetrachloro-m-xylene SUR	**76**	30-150	%	1	AM	11/19/15	8391	11/19/15	18:46	SW3546/8081B
decachlorobiphenyl SUR	**109**	30-150	%	1	AM	11/19/15	8391	11/19/15	18:46	SW3546/8081B

Absolute Resource associates

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980
Sample#: 34980-059
Sample ID: SS-6
Matrix: Solid Percent Dry: 86.5% Results expressed on a dry weight basis.
Sampled: 11/13/15 9:42

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
alpha-BHC	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	19:16	SW3546/8081B
beta-BHC	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	19:16	SW3546/8081B
delta-BHC	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	19:16	SW3546/8081B
gamma-BHC (Lindane)	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	19:16	SW3546/8081B
Heptachlor	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	19:16	SW3546/8081B
Aldrin	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	19:16	SW3546/8081B
Heptachlor Epoxide	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	19:16	SW3546/8081B
Endosulfan I	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	19:16	SW3546/8081B
Dieldrin	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	19:16	SW3546/8081B
4,4'-DDE	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	19:16	SW3546/8081B
Endrin	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	19:16	SW3546/8081B
Endosulfan II	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	19:16	SW3546/8081B
4,4'-DDD	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	19:16	SW3546/8081B
Endosulfan Sulfate	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	19:16	SW3546/8081B
4,4'-DDT	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	19:16	SW3546/8081B
Methoxychlor	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	19:16	SW3546/8081B
Endrin Ketone	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	19:16	SW3546/8081B
Endrin Aldehyde	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	19:16	SW3546/8081B
alpha-Chlordane	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	19:16	SW3546/8081B
gamma-Chlordane	< 0.04	0.04	ug/g	1	AM	11/19/15	8391	11/19/15	19:16	SW3546/8081B
Toxaphene	< 0.2	0.2	ug/g	1	AM	11/19/15	8391	11/19/15	19:16	SW3546/8081B
Surrogate Recovery		**Limits**								
tetrachloro-m-xylene SUR	**61**	30-150	%	1	AM	11/19/15	8391	11/19/15	19:16	SW3546/8081B
decachlorobiphenyl SUR	**89**	30-150	%	1	AM	11/19/15	8391	11/19/15	19:16	SW3546/8081B

Absolute Resource associates

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980
Sample#: 34980-063
Sample ID: SW-1
Matrix: Water
Sampled: 11/13/15 7:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
alpha-BHC	< 0.10	0.10	ug/L	1	AM	11/18/15	8383	11/19/15	15:44	SW3510C8081B
beta-BHC	< 0.10	0.10	ug/L	1	AM	11/18/15	8383	11/19/15	15:44	SW3510C8081B
delta-BHC	< 0.10	0.10	ug/L	1	AM	11/18/15	8383	11/19/15	15:44	SW3510C8081B
gamma-BHC (Lindane)	< 0.10	0.10	ug/L	1	AM	11/18/15	8383	11/19/15	15:44	SW3510C8081B
Heptachlor	< 0.10	0.10	ug/L	1	AM	11/18/15	8383	11/19/15	15:44	SW3510C8081B
Aldrin	< 0.10	0.10	ug/L	1	AM	11/18/15	8383	11/19/15	15:44	SW3510C8081B
Heptachlor Epoxide	< 0.10	0.10	ug/L	1	AM	11/18/15	8383	11/19/15	15:44	SW3510C8081B
Endosulfan I	< 0.10	0.10	ug/L	1	AM	11/18/15	8383	11/19/15	15:44	SW3510C8081B
Dieldrin	< 0.10	0.10	ug/L	1	AM	11/18/15	8383	11/19/15	15:44	SW3510C8081B
4,4'-DDE	< 0.10	0.10	ug/L	1	AM	11/18/15	8383	11/19/15	15:44	SW3510C8081B
Endrin	< 0.10	0.10	ug/L	1	AM	11/18/15	8383	11/19/15	15:44	SW3510C8081B
Endosulfan II	< 0.10	0.10	ug/L	1	AM	11/18/15	8383	11/19/15	15:44	SW3510C8081B
4,4'-DDD	< 0.10	0.10	ug/L	1	AM	11/18/15	8383	11/19/15	15:44	SW3510C8081B
Endosulfan Sulfate	< 0.10	0.10	ug/L	1	AM	11/18/15	8383	11/19/15	15:44	SW3510C8081B
4,4'-DDT	< 0.10	0.10	ug/L	1	AM	11/18/15	8383	11/19/15	15:44	SW3510C8081B
Methoxychlor	< 0.10	0.10	ug/L	1	AM	11/18/15	8383	11/19/15	15:44	SW3510C8081B
Endrin Ketone	< 0.10	0.10	ug/L	1	AM	11/18/15	8383	11/19/15	15:44	SW3510C8081B
Endrin Aldehyde	< 0.10	0.10	ug/L	1	AM	11/18/15	8383	11/19/15	15:44	SW3510C8081B
alpha-Chlordane	< 0.10	0.10	ug/L	1	AM	11/18/15	8383	11/19/15	15:44	SW3510C8081B
gamma-Chlordane	< 0.10	0.10	ug/L	1	AM	11/18/15	8383	11/19/15	15:44	SW3510C8081B
Toxaphene	< 1	1	ug/L	1	AM	11/18/15	8383	11/19/15	15:44	SW3510C8081B
Surrogate Recovery		**Limits**								
tetrachloro-m-xylene SUR	**48**	30-150	%	1	AM	11/18/15	8383	11/19/15	15:44	SW3510C8081B
decachlorobiphenyl SUR	**59**	30-150	%	1	AM	11/18/15	8383	11/19/15	15:44	SW3510C8081B

Absolute Resource associates

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980

Sample#: 34980-001
Sample ID: BM-20-B
Matrix: Solid Percent Dry: 95.7% Results expressed on a dry weight basis.
Sampled: 11/12/15 11:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
PCB-1016	< 0.2	0.2	ug/g	1	AM	11/18/15	8394	11/20/15	15:10	SW3540C8082A
PCB-1221	< 0.2	0.2	ug/g	1	AM	11/18/15	8394	11/20/15	15:10	SW3540C8082A
PCB-1232	< 0.2	0.2	ug/g	1	AM	11/18/15	8394	11/20/15	15:10	SW3540C8082A
PCB-1242	< 0.2	0.2	ug/g	1	AM	11/18/15	8394	11/20/15	15:10	SW3540C8082A
PCB-1248	< 0.2	0.2	ug/g	1	AM	11/18/15	8394	11/20/15	15:10	SW3540C8082A
PCB-1254	< 0.2	0.2	ug/g	1	AM	11/18/15	8394	11/20/15	15:10	SW3540C8082A
PCB-1260	< 0.2	0.2	ug/g	1	AM	11/18/15	8394	11/20/15	15:10	SW3540C8082A
Surrogate Recovery		**Limits**								
tetrachloro-m-xylene SUR	**107**	30-150	%	1	AM	11/18/15	8394	11/20/15	15:10	SW3540C8082A
decachlorobiphenyl SUR	**131**	30-150	%	1	AM	11/18/15	8394	11/20/15	15:10	SW3540C8082A

Sample#: 34980-002
Sample ID: BM-14-B
Matrix: Solid Percent Dry: 95.2% Results expressed on a dry weight basis.
Sampled: 11/12/15 12:45

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
PCB-1016	< 0.2	0.2	ug/g	1	AM	11/18/15	8394	11/20/15	15:40	SW3540C8082A
PCB-1221	< 0.2	0.2	ug/g	1	AM	11/18/15	8394	11/20/15	15:40	SW3540C8082A
PCB-1232	< 0.2	0.2	ug/g	1	AM	11/18/15	8394	11/20/15	15:40	SW3540C8082A
PCB-1242	< 0.2	0.2	ug/g	1	AM	11/18/15	8394	11/20/15	15:40	SW3540C8082A
PCB-1248	< 0.2	0.2	ug/g	1	AM	11/18/15	8394	11/20/15	15:40	SW3540C8082A
PCB-1254	< 0.2	0.2	ug/g	1	AM	11/18/15	8394	11/20/15	15:40	SW3540C8082A
PCB-1260	< 0.2	0.2	ug/g	1	AM	11/18/15	8394	11/20/15	15:40	SW3540C8082A
Surrogate Recovery		**Limits**								
tetrachloro-m-xylene SUR	**98**	30-150	%	1	AM	11/18/15	8394	11/20/15	15:40	SW3540C8082A
decachlorobiphenyl SUR	**120**	30-150	%	1	AM	11/18/15	8394	11/20/15	15:40	SW3540C8082A

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980

Sample#: 34980-003
Sample ID: BM-14-C
Matrix: Solid Percent Dry: 97.5% Results expressed on a dry weight basis.
Sampled: 11/12/15 12:58

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
PCB-1016	< 0.1	0.1	ug/g	1	AM	11/18/15	8394	11/20/15	16:10	SW3540C8082A
PCB-1221	< 0.1	0.1	ug/g	1	AM	11/18/15	8394	11/20/15	16:10	SW3540C8082A
PCB-1232	< 0.1	0.1	ug/g	1	AM	11/18/15	8394	11/20/15	16:10	SW3540C8082A
PCB-1242	< 0.1	0.1	ug/g	1	AM	11/18/15	8394	11/20/15	16:10	SW3540C8082A
PCB-1248	< 0.1	0.1	ug/g	1	AM	11/18/15	8394	11/20/15	16:10	SW3540C8082A
PCB-1254	< 0.1	0.1	ug/g	1	AM	11/18/15	8394	11/20/15	16:10	SW3540C8082A
PCB-1260	< 0.1	0.1	ug/g	1	AM	11/18/15	8394	11/20/15	16:10	SW3540C8082A
Surrogate Recovery		**Limits**								
tetrachloro-m-xylene SUR	**91**	30-150	%	1	AM	11/18/15	8394	11/20/15	16:10	SW3540C8082A
decachlorobiphenyl SUR	**101**	30-150	%	1	AM	11/18/15	8394	11/20/15	16:10	SW3540C8082A

Sample#: 34980-004
Sample ID: BM-20-A
Matrix: Solid Percent Dry: 97.1% Results expressed on a dry weight basis.
Sampled: 11/12/15 10:40

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
PCB-1016	< 0.1	0.1	ug/g	1	AM	11/18/15	8394	11/20/15	16:41	SW3540C8082A
PCB-1221	< 0.1	0.1	ug/g	1	AM	11/18/15	8394	11/20/15	16:41	SW3540C8082A
PCB-1232	< 0.1	0.1	ug/g	1	AM	11/18/15	8394	11/20/15	16:41	SW3540C8082A
PCB-1242	< 0.1	0.1	ug/g	1	AM	11/18/15	8394	11/20/15	16:41	SW3540C8082A
PCB-1248	< 0.1	0.1	ug/g	1	AM	11/18/15	8394	11/20/15	16:41	SW3540C8082A
PCB-1254	< 0.1	0.1	ug/g	1	AM	11/18/15	8394	11/20/15	16:41	SW3540C8082A
PCB-1260	< 0.1	0.1	ug/g	1	AM	11/18/15	8394	11/20/15	16:41	SW3540C8082A
Surrogate Recovery		**Limits**								
tetrachloro-m-xylene SUR	**93**	30-150	%	1	AM	11/18/15	8394	11/20/15	16:41	SW3540C8082A
decachlorobiphenyl SUR	**116**	30-150	%	1	AM	11/18/15	8394	11/20/15	16:41	SW3540C8082A

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980

Sample#: 34980-005
Sample ID: BM-20-C
Matrix: Solid Percent Dry: 95.1% Results expressed on a dry weight basis.
Sampled: 11/12/15 11:16

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
PCB-1016	< 0.2	0.2	ug/g	1	AM	11/18/15	8394	11/20/15	17:11	SW3540C8082A
PCB-1221	< 0.2	0.2	ug/g	1	AM	11/18/15	8394	11/20/15	17:11	SW3540C8082A
PCB-1232	< 0.2	0.2	ug/g	1	AM	11/18/15	8394	11/20/15	17:11	SW3540C8082A
PCB-1242	< 0.2	0.2	ug/g	1	AM	11/18/15	8394	11/20/15	17:11	SW3540C8082A
PCB-1248	< 0.2	0.2	ug/g	1	AM	11/18/15	8394	11/20/15	17:11	SW3540C8082A
PCB-1254	< 0.2	0.2	ug/g	1	AM	11/18/15	8394	11/20/15	17:11	SW3540C8082A
PCB-1260	< 0.2	0.2	ug/g	1	AM	11/18/15	8394	11/20/15	17:11	SW3540C8082A
Surrogate Recovery		**Limits**								
tetrachloro-m-xylene SUR	**87**	30-150	%	1	AM	11/18/15	8394	11/20/15	17:11	SW3540C8082A
decachlorobiphenyl SUR	**107**	30-150	%	1	AM	11/18/15	8394	11/20/15	17:11	SW3540C8082A

Sample#: 34980-006
Sample ID: BM-7-A DUP
Matrix: Solid Percent Dry: 95.9% Results expressed on a dry weight basis.
Sampled: 11/13/15 10:20

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
PCB-1016	< 0.2	0.2	ug/g	1	AM	11/18/15	8394	11/24/15	11:29	SW3540C8082A
PCB-1221	< 0.2	0.2	ug/g	1	AM	11/18/15	8394	11/24/15	11:29	SW3540C8082A
PCB-1232	< 0.2	0.2	ug/g	1	AM	11/18/15	8394	11/24/15	11:29	SW3540C8082A
PCB-1242	< 0.2	0.2	ug/g	1	AM	11/18/15	8394	11/24/15	11:29	SW3540C8082A
PCB-1248	< 0.2	0.2	ug/g	1	AM	11/18/15	8394	11/24/15	11:29	SW3540C8082A
PCB-1254	< 0.2	0.2	ug/g	1	AM	11/18/15	8394	11/24/15	11:29	SW3540C8082A
PCB-1260	< 0.2	0.2	ug/g	1	AM	11/18/15	8394	11/24/15	11:29	SW3540C8082A
Surrogate Recovery		**Limits**								
tetrachloro-m-xylene SUR	**140**	30-150	%	1	AM	11/18/15	8394	11/24/15	11:29	SW3540C8082A
decachlorobiphenyl SUR	**123**	30-150	%	1	AM	11/18/15	8394	11/24/15	11:29	SW3540C8082A

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980

Sample#: 34980-007
Sample ID: BM-7-A
Matrix: Solid Percent Dry: 96.8% Results expressed on a dry weight basis.
Sampled: 11/13/15 10:20

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
PCB-1016	< 0.2	0.2	ug/g	1	AM	11/18/15	8394	11/20/15	18:12	SW3540C8082A
PCB-1221	< 0.2	0.2	ug/g	1	AM	11/18/15	8394	11/20/15	18:12	SW3540C8082A
PCB-1232	< 0.2	0.2	ug/g	1	AM	11/18/15	8394	11/20/15	18:12	SW3540C8082A
PCB-1242	< 0.2	0.2	ug/g	1	AM	11/18/15	8394	11/20/15	18:12	SW3540C8082A
PCB-1248	< 0.2	0.2	ug/g	1	AM	11/18/15	8394	11/20/15	18:12	SW3540C8082A
PCB-1254	< 0.2	0.2	ug/g	1	AM	11/18/15	8394	11/20/15	18:12	SW3540C8082A
PCB-1260	< 0.2	0.2	ug/g	1	AM	11/18/15	8394	11/20/15	18:12	SW3540C8082A
Surrogate Recovery		**Limits**								
tetrachloro-m-xylene SUR	**157** *	30-150	%	1	AM	11/18/15	8394	11/20/15	18:12	SW3540C8082A
decachlorobiphenyl SUR	**95**	30-150	%	1	AM	11/18/15	8394	11/20/15	18:12	SW3540C8082A

**** This surrogate is above the acceptance criteria. Since no aroclors were detected above the quantitation limit, there is no impact to the data.***

Sample#: 34980-008
Sample ID: BM-5-C
Matrix: Solid Percent Dry: 94.8% Results expressed on a dry weight basis.
Sampled: 11/12/15 17:18

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
PCB-1016	< 3.4	3.4	ug/g	20	AM	11/19/15	8394	11/23/15	16:46	SW3540C8082A
PCB-1221	< 3.4	3.4	ug/g	20	AM	11/19/15	8394	11/23/15	16:46	SW3540C8082A
PCB-1232	< 3.4	3.4	ug/g	20	AM	11/19/15	8394	11/23/15	16:46	SW3540C8082A
PCB-1242	< 3.4	3.4	ug/g	20	AM	11/19/15	8394	11/23/15	16:46	SW3540C8082A
PCB-1248	< 3.4	3.4	ug/g	20	AM	11/19/15	8394	11/23/15	16:46	SW3540C8082A
PCB-1254	**38**	3.4	ug/g	20	AM	11/19/15	8394	11/23/15	16:46	SW3540C8082A
PCB-1260	< 3.4	3.4	ug/g	20	AM	11/19/15	8394	11/23/15	16:46	SW3540C8082A
Surrogate Recovery		**Limits**								
tetrachloro-m-xylene SUR	**DOR**	30-150	%	20	AM	11/19/15	8394	11/23/15	16:46	SW3540C8082A
decachlorobiphenyl SUR	**DOR**	30-150	%	20	AM	11/19/15	8394	11/23/15	16:46	SW3540C8082A

DOR = Diluted out of calibration range.

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980

Sample#: 34980-009
Sample ID: BM-5-B
Matrix: Solid Percent Dry: 81.6% Results expressed on a dry weight basis.
Sampled: 11/12/15 16:55

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
PCB-1016	< 1.7	1.7	ug/g	10	AM	11/19/15	8394	11/24/15	10:28	SW3540C8082A
PCB-1221	< 1.7	1.7	ug/g	10	AM	11/19/15	8394	11/24/15	10:28	SW3540C8082A
PCB-1232	< 1.7	1.7	ug/g	10	AM	11/19/15	8394	11/24/15	10:28	SW3540C8082A
PCB-1242	< 1.7	1.7	ug/g	10	AM	11/19/15	8394	11/24/15	10:28	SW3540C8082A
PCB-1248	< 1.7	1.7	ug/g	10	AM	11/19/15	8394	11/24/15	10:28	SW3540C8082A
PCB-1254	**15**	1.7	ug/g	10	AM	11/19/15	8394	11/24/15	10:28	SW3540C8082A
PCB-1260	< 1.7	1.7	ug/g	10	AM	11/19/15	8394	11/24/15	10:28	SW3540C8082A
Surrogate Recovery		**Limits**								
tetrachloro-m-xylene SUR	**140**	30-150	%	10	AM	11/19/15	8394	11/24/15	10:28	SW3540C8082A
decachlorobiphenyl SUR	**144**	30-150	%	10	AM	11/19/15	8394	11/24/15	10:28	SW3540C8082A

Sample#: 34980-010
Sample ID: BM-5-A
Matrix: Solid Percent Dry: 38.7% Results expressed on a dry weight basis.
Sampled: 11/12/15 16:48

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
PCB-1016	< 0.4	0.4	ug/g	1	AM	11/19/15	8394	11/20/15	19:43	SW3540C8082A
PCB-1221	< 0.4	0.4	ug/g	1	AM	11/19/15	8394	11/20/15	19:43	SW3540C8082A
PCB-1232	< 0.4	0.4	ug/g	1	AM	11/19/15	8394	11/20/15	19:43	SW3540C8082A
PCB-1242	< 0.4	0.4	ug/g	1	AM	11/19/15	8394	11/20/15	19:43	SW3540C8082A
PCB-1248	< 0.4	0.4	ug/g	1	AM	11/19/15	8394	11/20/15	19:43	SW3540C8082A
PCB-1254	< 0.4	0.4	ug/g	1	AM	11/19/15	8394	11/20/15	19:43	SW3540C8082A
PCB-1260	< 0.4	0.4	ug/g	1	AM	11/19/15	8394	11/20/15	19:43	SW3540C8082A
Surrogate Recovery		**Limits**								
tetrachloro-m-xylene SUR	**70**	30-150	%	1	AM	11/19/15	8394	11/20/15	19:43	SW3540C8082A
decachlorobiphenyl SUR	**55**	30-150	%	1	AM	11/19/15	8394	11/20/15	19:43	SW3540C8082A

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980

Sample#: 34980-011
Sample ID: BM-3-C
Matrix: Solid Percent Dry: 95.4% Results expressed on a dry weight basis.
Sampled: 11/12/15 15:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
PCB-1016	< 1.7	1.7	ug/g	10	AM	11/19/15	8394	11/23/15	17:47	SW3540C8082A
PCB-1221	< 1.7	1.7	ug/g	10	AM	11/19/15	8394	11/23/15	17:47	SW3540C8082A
PCB-1232	< 1.7	1.7	ug/g	10	AM	11/19/15	8394	11/23/15	17:47	SW3540C8082A
PCB-1242	< 1.7	1.7	ug/g	10	AM	11/19/15	8394	11/23/15	17:47	SW3540C8082A
PCB-1248	< 1.7	1.7	ug/g	10	AM	11/19/15	8394	11/23/15	17:47	SW3540C8082A
PCB-1254	**23**	1.7	ug/g	10	AM	11/19/15	8394	11/23/15	17:47	SW3540C8082A
PCB-1260	< 1.7	1.7	ug/g	10	AM	11/19/15	8394	11/23/15	17:47	SW3540C8082A
Surrogate Recovery		**Limits**								
tetrachloro-m-xylene SUR	**142**	30-150	%	10	AM	11/19/15	8394	11/23/15	17:47	SW3540C8082A
decachlorobiphenyl SUR	**129**	30-150	%	10	AM	11/19/15	8394	11/23/15	17:47	SW3540C8082A

Sample#: 34980-012
Sample ID: BM-3-B
Matrix: Solid Percent Dry: 93.8% Results expressed on a dry weight basis.
Sampled: 11/12/15 14:42

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
PCB-1016	< 0.2	0.2	ug/g	1	AM	11/19/15	8394	11/20/15	23:46	SW3540C8082A
PCB-1221	< 0.2	0.2	ug/g	1	AM	11/19/15	8394	11/20/15	23:46	SW3540C8082A
PCB-1232	< 0.2	0.2	ug/g	1	AM	11/19/15	8394	11/20/15	23:46	SW3540C8082A
PCB-1242	< 0.2	0.2	ug/g	1	AM	11/19/15	8394	11/20/15	23:46	SW3540C8082A
PCB-1248	< 0.2	0.2	ug/g	1	AM	11/19/15	8394	11/20/15	23:46	SW3540C8082A
PCB-1254	< 0.2	0.2	ug/g	1	AM	11/19/15	8394	11/20/15	23:46	SW3540C8082A
PCB-1260	< 0.2	0.2	ug/g	1	AM	11/19/15	8394	11/20/15	23:46	SW3540C8082A
Surrogate Recovery		**Limits**								
tetrachloro-m-xylene SUR	**70**	30-150	%	1	AM	11/19/15	8394	11/20/15	23:46	SW3540C8082A
decachlorobiphenyl SUR	**66**	30-150	%	1	AM	11/19/15	8394	11/20/15	23:46	SW3540C8082A

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980

Sample#: 34980-013
Sample ID: BM-3-A
Matrix: Solid Percent Dry: 95% Results expressed on a dry weight basis.
Sampled: 11/12/15 14:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
PCB-1016	< 0.1	0.1	ug/g	1	AM	11/19/15	8394	11/21/15	0:16	SW3540C8082A
PCB-1221	< 0.1	0.1	ug/g	1	AM	11/19/15	8394	11/21/15	0:16	SW3540C8082A
PCB-1232	< 0.1	0.1	ug/g	1	AM	11/19/15	8394	11/21/15	0:16	SW3540C8082A
PCB-1242	< 0.1	0.1	ug/g	1	AM	11/19/15	8394	11/21/15	0:16	SW3540C8082A
PCB-1248	< 0.1	0.1	ug/g	1	AM	11/19/15	8394	11/21/15	0:16	SW3540C8082A
PCB-1254	< 0.1	0.1	ug/g	1	AM	11/19/15	8394	11/21/15	0:16	SW3540C8082A
PCB-1260	< 0.1	0.1	ug/g	1	AM	11/19/15	8394	11/21/15	0:16	SW3540C8082A
Surrogate Recovery		**Limits**								
tetrachloro-m-xylene SUR	**61**	30-150	%	1	AM	11/19/15	8394	11/21/15	0:16	SW3540C8082A
decachlorobiphenyl SUR	**63**	30-150	%	1	AM	11/19/15	8394	11/21/15	0:16	SW3540C8082A

Sample#: 34980-014
Sample ID: BM-1-C
Matrix: Solid Percent Dry: 97.5% Results expressed on a dry weight basis.
Sampled: 11/12/15 13:53

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
PCB-1016	< 0.2	0.2	ug/g	1	AM	11/19/15	8394	11/21/15	0:46	SW3540C8082A
PCB-1221	< 0.2	0.2	ug/g	1	AM	11/19/15	8394	11/21/15	0:46	SW3540C8082A
PCB-1232	< 0.2	0.2	ug/g	1	AM	11/19/15	8394	11/21/15	0:46	SW3540C8082A
PCB-1242	< 0.2	0.2	ug/g	1	AM	11/19/15	8394	11/21/15	0:46	SW3540C8082A
PCB-1248	< 0.2	0.2	ug/g	1	AM	11/19/15	8394	11/21/15	0:46	SW3540C8082A
PCB-1254	< 0.2	0.2	ug/g	1	AM	11/19/15	8394	11/21/15	0:46	SW3540C8082A
PCB-1260	< 0.2	0.2	ug/g	1	AM	11/19/15	8394	11/21/15	0:46	SW3540C8082A
Surrogate Recovery		**Limits**								
tetrachloro-m-xylene SUR	**70**	30-150	%	1	AM	11/19/15	8394	11/21/15	0:46	SW3540C8082A
decachlorobiphenyl SUR	**75**	30-150	%	1	AM	11/19/15	8394	11/21/15	0:46	SW3540C8082A

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980

Sample#: 34980-015
Sample ID: BM-1-B
Matrix: Solid Percent Dry: 95.1% Results expressed on a dry weight basis.
Sampled: 11/12/15 13:44

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
PCB-1016	< 0.2	0.2	ug/g	1	AM	11/19/15	8394	11/21/15	1:17	SW3540C8082A
PCB-1221	< 0.2	0.2	ug/g	1	AM	11/19/15	8394	11/21/15	1:17	SW3540C8082A
PCB-1232	< 0.2	0.2	ug/g	1	AM	11/19/15	8394	11/21/15	1:17	SW3540C8082A
PCB-1242	< 0.2	0.2	ug/g	1	AM	11/19/15	8394	11/21/15	1:17	SW3540C8082A
PCB-1248	< 0.2	0.2	ug/g	1	AM	11/19/15	8394	11/21/15	1:17	SW3540C8082A
PCB-1254	< 0.2	0.2	ug/g	1	AM	11/19/15	8394	11/21/15	1:17	SW3540C8082A
PCB-1260	< 0.2	0.2	ug/g	1	AM	11/19/15	8394	11/21/15	1:17	SW3540C8082A
Surrogate Recovery		**Limits**								
tetrachloro-m-xylene SUR	**83**	30-150	%	1	AM	11/19/15	8394	11/21/15	1:17	SW3540C8082A
decachlorobiphenyl SUR	**91**	30-150	%	1	AM	11/19/15	8394	11/21/15	1:17	SW3540C8082A

Sample#: 34980-016
Sample ID: BM-1-A
Matrix: Solid Percent Dry: 94.1% Results expressed on a dry weight basis.
Sampled: 11/12/15 13:23

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
PCB-1016	< 0.1	0.1	ug/g	1	AM	11/19/15	8394	11/23/15	15:37	SW3540C8082A
PCB-1221	< 0.1	0.1	ug/g	1	AM	11/19/15	8394	11/23/15	15:37	SW3540C8082A
PCB-1232	< 0.1	0.1	ug/g	1	AM	11/19/15	8394	11/23/15	15:37	SW3540C8082A
PCB-1242	< 0.1	0.1	ug/g	1	AM	11/19/15	8394	11/23/15	15:37	SW3540C8082A
PCB-1248	< 0.1	0.1	ug/g	1	AM	11/19/15	8394	11/23/15	15:37	SW3540C8082A
PCB-1254	< 0.1	0.1	ug/g	1	AM	11/19/15	8394	11/23/15	15:37	SW3540C8082A
PCB-1260	< 0.1	0.1	ug/g	1	AM	11/19/15	8394	11/23/15	15:37	SW3540C8082A
Surrogate Recovery		**Limits**								
tetrachloro-m-xylene SUR	**89**	30-150	%	1	AM	11/19/15	8394	11/23/15	15:37	SW3540C8082A
decachlorobiphenyl SUR	**74**	30-150	%	1	AM	11/19/15	8394	11/23/15	15:37	SW3540C8082A

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980

Sample#: 34980-017
Sample ID: BM-2
Matrix: Solid
Sampled: 11/13/15 11:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
PCB-1016	< 5300	5300	ug/g	40000	AM	11/19/15	8394	11/24/15	10:58	SW3540C8082A
PCB-1221	< 5300	5300	ug/g	40000	AM	11/19/15	8394	11/24/15	10:58	SW3540C8082A
PCB-1232	< 5300	5300	ug/g	40000	AM	11/19/15	8394	11/24/15	10:58	SW3540C8082A
PCB-1242	< 5300	5300	ug/g	40000	AM	11/19/15	8394	11/24/15	10:58	SW3540C8082A
PCB-1248	< 5300	5300	ug/g	40000	AM	11/19/15	8394	11/24/15	10:58	SW3540C8082A
PCB-1254	**65000**	5300	ug/g	40000	AM	11/19/15	8394	11/24/15	10:58	SW3540C8082A
PCB-1260	< 5300	5300	ug/g	40000	AM	11/19/15	8394	11/24/15	10:58	SW3540C8082A
Surrogate Recovery		**Limits**								
tetrachloro-m-xylene SUR	**DOR**	30-150	%	40000	AM	11/19/15	8394	11/24/15	10:58	SW3540C8082A
decachlorobiphenyl SUR	**DOR**	30-150	%	40000	AM	11/19/15	8394	11/24/15	10:58	SW3540C8082A

DOR = Diluted out of calibration range.

Sample#: 34980-018
Sample ID: BM-30
Matrix: Solid
Sampled: 11/13/15 15:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
PCB-1016	< 0.8	0.8	ug/g	5	AM	11/23/15	8404	12/1/15	13:41	SW3540C8082A
PCB-1221	< 0.8	0.8	ug/g	5	AM	11/23/15	8404	12/1/15	13:41	SW3540C8082A
PCB-1232	< 0.8	0.8	ug/g	5	AM	11/23/15	8404	12/1/15	13:41	SW3540C8082A
PCB-1242	< 0.8	0.8	ug/g	5	AM	11/23/15	8404	12/1/15	13:41	SW3540C8082A
PCB-1248	< 0.8	0.8	ug/g	5	AM	11/23/15	8404	12/1/15	13:41	SW3540C8082A
PCB-1254	< 0.8	0.8	ug/g	5	AM	11/23/15	8404	12/1/15	13:41	SW3540C8082A
PCB-1260	< 0.8	0.8	ug/g	5	AM	11/23/15	8404	12/1/15	13:41	SW3540C8082A
Surrogate Recovery		**Limits**								
tetrachloro-m-xylene SUR	**118**	30-150	%	5	AM	11/23/15	8404	12/1/15	13:41	SW3540C8082A
decachlorobiphenyl SUR	**55**	30-150	%	5	AM	11/23/15	8404	12/1/15	13:41	SW3540C8082A

Note: Dilution was required due to matrix interference.

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980

Sample#: 34980-019
Sample ID: BM-31
Matrix: Solid
Sampled: 11/13/15 15:40

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
PCB-1016	< 0.1	0.1	ug/g	1	AM	11/23/15	8404	11/25/15	11:37	SW3540C8082A
PCB-1221	< 0.1	0.1	ug/g	1	AM	11/23/15	8404	11/25/15	11:37	SW3540C8082A
PCB-1232	< 0.1	0.1	ug/g	1	AM	11/23/15	8404	11/25/15	11:37	SW3540C8082A
PCB-1242	< 0.1	0.1	ug/g	1	AM	11/23/15	8404	11/25/15	11:37	SW3540C8082A
PCB-1248	< 0.1	0.1	ug/g	1	AM	11/23/15	8404	11/25/15	11:37	SW3540C8082A
PCB-1254	< 0.1	0.1	ug/g	1	AM	11/23/15	8404	11/25/15	11:37	SW3540C8082A
PCB-1260	< 0.1	0.1	ug/g	1	AM	11/23/15	8404	11/25/15	11:37	SW3540C8082A
Surrogate Recovery		**Limits**								
tetrachloro-m-xylene SUR	**78**	30-150	%	1	AM	11/23/15	8404	11/25/15	11:37	SW3540C8082A
decachlorobiphenyl SUR	**41**	30-150	%	1	AM	11/23/15	8404	11/25/15	11:37	SW3540C8082A

Sample#: 34980-020
Sample ID: BM-32
Matrix: Solid
Sampled: 11/13/15 15:45

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
PCB-1016	< 29	29	ug/g	200	AM	11/23/15	8404	12/1/15	14:11	SW3540C8082A
PCB-1221	< 29	29	ug/g	200	AM	11/23/15	8404	12/1/15	14:11	SW3540C8082A
PCB-1232	< 29	29	ug/g	200	AM	11/23/15	8404	12/1/15	14:11	SW3540C8082A
PCB-1242	< 29	29	ug/g	200	AM	11/23/15	8404	12/1/15	14:11	SW3540C8082A
PCB-1248	< 29	29	ug/g	200	AM	11/23/15	8404	12/1/15	14:11	SW3540C8082A
PCB-1254	< 29	29	ug/g	200	AM	11/23/15	8404	12/1/15	14:11	SW3540C8082A
PCB-1260	< 29	29	ug/g	200	AM	11/23/15	8404	12/1/15	14:11	SW3540C8082A
Surrogate Recovery		**Limits**								
tetrachloro-m-xylene SUR	**DOR**	30-150	%	200	AM	11/23/15	8404	12/1/15	14:11	SW3540C8082A
decachlorobiphenyl SUR	**DOR**	30-150	%	200	AM	11/23/15	8404	12/1/15	14:11	SW3540C8082A

DOR = Diluted out of calibration range.
Note: Dilution was required due to matrix interference.

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980

Sample#: 34980-021
Sample ID: BM-33
Matrix: Solid
Sampled: 11/13/15 15:50

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
PCB-1016	< 2.9	2.9	ug/g	20	AM	11/23/15	8404	11/24/15	15:25	SW3540C8082A
PCB-1221	< 2.9	2.9	ug/g	20	AM	11/23/15	8404	11/24/15	15:25	SW3540C8082A
PCB-1232	< 2.9	2.9	ug/g	20	AM	11/23/15	8404	11/24/15	15:25	SW3540C8082A
PCB-1242	< 2.9	2.9	ug/g	20	AM	11/23/15	8404	11/24/15	15:25	SW3540C8082A
PCB-1248	< 2.9	2.9	ug/g	20	AM	11/23/15	8404	11/24/15	15:25	SW3540C8082A
PCB-1254	**11**	2.9	ug/g	20	AM	11/23/15	8404	11/24/15	15:25	SW3540C8082A
PCB-1260	< 2.9	2.9	ug/g	20	AM	11/23/15	8404	11/24/15	15:25	SW3540C8082A
Surrogate Recovery		**Limits**								
tetrachloro-m-xylene SUR	**DOR**	30-150	%	20	AM	11/23/15	8404	11/24/15	15:25	SW3540C8082A
decachlorobiphenyl SUR	**DOR**	30-150	%	20	AM	11/23/15	8404	11/24/15	15:25	SW3540C8082A

DOR = Diluted out of calibration range.

Sample#: 34980-022
Sample ID: BM-34
Matrix: Solid
Sampled: 11/13/15 15:55

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
PCB-1016	< 0.2	0.2	ug/g	1	AM	11/23/15	8404	11/25/15	12:08	SW3540C8082A
PCB-1221	< 0.2	0.2	ug/g	1	AM	11/23/15	8404	11/25/15	12:08	SW3540C8082A
PCB-1232	< 0.2	0.2	ug/g	1	AM	11/23/15	8404	11/25/15	12:08	SW3540C8082A
PCB-1242	< 0.2	0.2	ug/g	1	AM	11/23/15	8404	11/25/15	12:08	SW3540C8082A
PCB-1248	< 0.2	0.2	ug/g	1	AM	11/23/15	8404	11/25/15	12:08	SW3540C8082A
PCB-1254	< 0.2	0.2	ug/g	1	AM	11/23/15	8404	11/25/15	12:08	SW3540C8082A
PCB-1260	< 0.2	0.2	ug/g	1	AM	11/23/15	8404	11/25/15	12:08	SW3540C8082A
Surrogate Recovery		**Limits**								
tetrachloro-m-xylene SUR	**79**	30-150	%	1	AM	11/23/15	8404	11/25/15	12:08	SW3540C8082A
decachlorobiphenyl SUR	**64**	30-150	%	1	AM	11/23/15	8404	11/25/15	12:08	SW3540C8082A

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980

Sample#: 34980-023
Sample ID: BM-12
Matrix: Solid
Sampled: 11/13/15 12:45

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
PCB-1016	< 1.5	1.5	ug/g	10	AM	11/23/15	8404	12/1/15	15:12	SW3540C8082A
PCB-1221	< 1.5	1.5	ug/g	10	AM	11/23/15	8404	12/1/15	15:12	SW3540C8082A
PCB-1232	< 1.5	1.5	ug/g	10	AM	11/23/15	8404	12/1/15	15:12	SW3540C8082A
PCB-1242	< 1.5	1.5	ug/g	10	AM	11/23/15	8404	12/1/15	15:12	SW3540C8082A
PCB-1248	< 1.5	1.5	ug/g	10	AM	11/23/15	8404	12/1/15	15:12	SW3540C8082A
PCB-1254	**1.7**	1.5	ug/g	10	AM	11/23/15	8404	12/1/15	15:12	SW3540C8082A
PCB-1260	< 1.5	1.5	ug/g	10	AM	11/23/15	8404	12/1/15	15:12	SW3540C8082A
Surrogate Recovery		**Limits**								
tetrachloro-m-xylene SUR	**79**	30-150	%	10	AM	11/23/15	8404	12/1/15	15:12	SW3540C8082A
decachlorobiphenyl SUR	**26** *	30-150	%	10	AM	11/23/15	8404	12/1/15	15:12	SW3540C8082A

**** The surrogate showed recovery outside the acceptance limits as a result of an obvious matrix interference.***

Sample#: 34980-024
Sample ID: BM-3
Matrix: Solid
Sampled: 11/13/15 11:45

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
PCB-1016	< 3100	3100	ug/g	20000	AM	11/23/15	8404	12/1/15	12:17	SW3540C8082A
PCB-1221	< 3100	3100	ug/g	20000	AM	11/23/15	8404	12/1/15	12:17	SW3540C8082A
PCB-1232	< 3100	3100	ug/g	20000	AM	11/23/15	8404	12/1/15	12:17	SW3540C8082A
PCB-1242	< 3100	3100	ug/g	20000	AM	11/23/15	8404	12/1/15	12:17	SW3540C8082A
PCB-1248	< 3100	3100	ug/g	20000	AM	11/23/15	8404	12/1/15	12:17	SW3540C8082A
PCB-1254	**69000**	3100	ug/g	20000	AM	11/23/15	8404	12/1/15	12:17	SW3540C8082A
PCB-1260	< 3100	3100	ug/g	20000	AM	11/23/15	8404	12/1/15	12:17	SW3540C8082A
Surrogate Recovery		**Limits**								
tetrachloro-m-xylene SUR	**DOR**	30-150	%	20000	AM	11/23/15	8404	12/1/15	12:17	SW3540C8082A
decachlorobiphenyl SUR	**DOR**	30-150	%	20000	AM	11/23/15	8404	12/1/15	12:17	SW3540C8082A

DOR = Diluted out of calibration range.

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980

Sample#: 34980-025
Sample ID: BM-4
Matrix: Solid
Sampled: 11/13/15 11:49

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
PCB-1016	< 33	33	ug/g	200	AM	11/24/15	8404	12/1/15	11:16	SW3540C8082A
PCB-1221	< 33	33	ug/g	200	AM	11/24/15	8404	12/1/15	11:16	SW3540C8082A
PCB-1232	< 33	33	ug/g	200	AM	11/24/15	8404	12/1/15	11:16	SW3540C8082A
PCB-1242	< 33	33	ug/g	200	AM	11/24/15	8404	12/1/15	11:16	SW3540C8082A
PCB-1248	< 33	33	ug/g	200	AM	11/24/15	8404	12/1/15	11:16	SW3540C8082A
PCB-1254	**480**	33	ug/g	200	AM	11/24/15	8404	12/1/15	11:16	SW3540C8082A
PCB-1260	< 33	33	ug/g	200	AM	11/24/15	8404	12/1/15	11:16	SW3540C8082A
Surrogate Recovery		**Limits**								
tetrachloro-m-xylene SUR	**DOR**	30-150	%	200	AM	11/24/15	8404	12/1/15	11:16	SW3540C8082A
decachlorobiphenyl SUR	**DOR**	30-150	%	200	AM	11/24/15	8404	12/1/15	11:16	SW3540C8082A

DOR = Diluted out of calibration range.

Sample#: 34980-026
Sample ID: BM-6
Matrix: Solid
Sampled: 11/13/15 11:53

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
PCB-1016	< 0.7	0.7	ug/g	5	AM	11/24/15	8404	11/30/15	23:07	SW3540C8082A
PCB-1221	< 0.7	0.7	ug/g	5	AM	11/24/15	8404	11/30/15	23:07	SW3540C8082A
PCB-1232	< 0.7	0.7	ug/g	5	AM	11/24/15	8404	11/30/15	23:07	SW3540C8082A
PCB-1242	< 0.7	0.7	ug/g	5	AM	11/24/15	8404	11/30/15	23:07	SW3540C8082A
PCB-1248	< 0.7	0.7	ug/g	5	AM	11/24/15	8404	11/30/15	23:07	SW3540C8082A
PCB-1254	< 0.7	0.7	ug/g	5	AM	11/24/15	8404	11/30/15	23:07	SW3540C8082A
PCB-1260	< 0.7	0.7	ug/g	5	AM	11/24/15	8404	11/30/15	23:07	SW3540C8082A
Surrogate Recovery		**Limits**								
tetrachloro-m-xylene SUR	**82**	30-150	%	5	AM	11/24/15	8404	11/30/15	23:07	SW3540C8082A
decachlorobiphenyl SUR	**80**	30-150	%	5	AM	11/24/15	8404	11/30/15	23:07	SW3540C8082A

Note: Dilution was required due to matrix interference.

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980

Sample#: 34980-027
Sample ID: BM-85 Carpet
Matrix: Solid
Sampled: 11/13/15 13:25

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
PCB-1016	< 1.6	1.6	ug/g	10	AM	11/24/15	8404	11/30/15	23:38	SW3540C8082A
PCB-1221	< 1.6	1.6	ug/g	10	AM	11/24/15	8404	11/30/15	23:38	SW3540C8082A
PCB-1232	< 1.6	1.6	ug/g	10	AM	11/24/15	8404	11/30/15	23:38	SW3540C8082A
PCB-1242	< 1.6	1.6	ug/g	10	AM	11/24/15	8404	11/30/15	23:38	SW3540C8082A
PCB-1248	< 1.6	1.6	ug/g	10	AM	11/24/15	8404	11/30/15	23:38	SW3540C8082A
PCB-1254	**1.9**	1.6	ug/g	10	AM	11/24/15	8404	11/30/15	23:38	SW3540C8082A
PCB-1260	< 1.6	1.6	ug/g	10	AM	11/24/15	8404	11/30/15	23:38	SW3540C8082A
Surrogate Recovery		**Limits**								
tetrachloro-m-xylene SUR	**74**	30-150	%	10	AM	11/24/15	8404	11/30/15	23:38	SW3540C8082A
decachlorobiphenyl SUR	**67**	30-150	%	10	AM	11/24/15	8404	11/30/15	23:38	SW3540C8082A

Sample#: 34980-028
Sample ID: BM-6 DUP
Matrix: Solid
Sampled: 11/13/15 11:53

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
PCB-1016	< 0.7	0.7	ug/g	5	AM	11/24/15	8404	11/25/15	17:22	SW3540C8082A
PCB-1221	< 0.7	0.7	ug/g	5	AM	11/24/15	8404	11/25/15	17:22	SW3540C8082A
PCB-1232	< 0.7	0.7	ug/g	5	AM	11/24/15	8404	11/25/15	17:22	SW3540C8082A
PCB-1242	< 0.7	0.7	ug/g	5	AM	11/24/15	8404	11/25/15	17:22	SW3540C8082A
PCB-1248	< 0.7	0.7	ug/g	5	AM	11/24/15	8404	11/25/15	17:22	SW3540C8082A
PCB-1254	< 0.7	0.7	ug/g	5	AM	11/24/15	8404	11/25/15	17:22	SW3540C8082A
PCB-1260	< 0.7	0.7	ug/g	5	AM	11/24/15	8404	11/25/15	17:22	SW3540C8082A
Surrogate Recovery		**Limits**								
tetrachloro-m-xylene SUR	**60**	30-150	%	5	AM	11/24/15	8404	11/25/15	17:22	SW3540C8082A
decachlorobiphenyl SUR	**71**	30-150	%	5	AM	11/24/15	8404	11/25/15	17:22	SW3540C8082A

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980

Sample#: 34980-029
Sample ID: BM-11
Matrix: Solid
Sampled: 11/13/15 12:40

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
PCB-1016	< 28	28	ug/g	200	AM	11/24/15	8404	12/1/15	11:46	SW3540C8082A
PCB-1221	< 28	28	ug/g	200	AM	11/24/15	8404	12/1/15	11:46	SW3540C8082A
PCB-1232	< 28	28	ug/g	200	AM	11/24/15	8404	12/1/15	11:46	SW3540C8082A
PCB-1242	< 28	28	ug/g	200	AM	11/24/15	8404	12/1/15	11:46	SW3540C8082A
PCB-1248	< 28	28	ug/g	200	AM	11/24/15	8404	12/1/15	11:46	SW3540C8082A
PCB-1254	**370**	28	ug/g	200	AM	11/24/15	8404	12/1/15	11:46	SW3540C8082A
PCB-1260	< 28	28	ug/g	200	AM	11/24/15	8404	12/1/15	11:46	SW3540C8082A
Surrogate Recovery		**Limits**								
tetrachloro-m-xylene SUR	**DOR**	30-150	%	200	AM	11/24/15	8404	12/1/15	11:46	SW3540C8082A
decachlorobiphenyl SUR	**DOR**	30-150	%	200	AM	11/24/15	8404	12/1/15	11:46	SW3540C8082A

DOR = Diluted out of calibration range.

Sample#: 34980-030
Sample ID: BM-10
Matrix: Solid
Sampled: 11/13/15 12:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
PCB-1016	< 3.2	3.2	ug/g	20	AM	11/24/15	8404	12/1/15	4:41	SW3540C8082A
PCB-1221	< 3.2	3.2	ug/g	20	AM	11/24/15	8404	12/1/15	4:41	SW3540C8082A
PCB-1232	< 3.2	3.2	ug/g	20	AM	11/24/15	8404	12/1/15	4:41	SW3540C8082A
PCB-1242	< 3.2	3.2	ug/g	20	AM	11/24/15	8404	12/1/15	4:41	SW3540C8082A
PCB-1248	< 3.2	3.2	ug/g	20	AM	11/24/15	8404	12/1/15	4:41	SW3540C8082A
PCB-1254	**20**	3.2	ug/g	20	AM	11/24/15	8404	12/1/15	4:41	SW3540C8082A
PCB-1260	< 3.2	3.2	ug/g	20	AM	11/24/15	8404	12/1/15	4:41	SW3540C8082A
Surrogate Recovery		**Limits**								
tetrachloro-m-xylene SUR	**DOR**	30-150	%	20	AM	11/24/15	8404	12/1/15	4:41	SW3540C8082A
decachlorobiphenyl SUR	**DOR**	30-150	%	20	AM	11/24/15	8404	12/1/15	4:41	SW3540C8082A

DOR = Diluted out of calibration range.

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980

Sample#: 34980-042
Sample ID: Eq Blk Chisel
Matrix: Water
Sampled: 11/13/15 16:20

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
PCB-1016	< 0.3	0.3	ug/L	1	AM	11/19/15	8392	11/23/15	16:07	SW3510C8082A
PCB-1221	< 0.3	0.3	ug/L	1	AM	11/19/15	8392	11/23/15	16:07	SW3510C8082A
PCB-1232	< 0.3	0.3	ug/L	1	AM	11/19/15	8392	11/23/15	16:07	SW3510C8082A
PCB-1242	< 0.3	0.3	ug/L	1	AM	11/19/15	8392	11/23/15	16:07	SW3510C8082A
PCB-1248	< 0.3	0.3	ug/L	1	AM	11/19/15	8392	11/23/15	16:07	SW3510C8082A
PCB-1254	**0.5**	0.3	ug/L	1	AM	11/19/15	8392	11/23/15	16:07	SW3510C8082A
PCB-1260	< 0.3	0.3	ug/L	1	AM	11/19/15	8392	11/23/15	16:07	SW3510C8082A
Surrogate Recovery		**Limits**								
tetrachloro-m-xylene SUR	**90**	30-150	%	1	AM	11/19/15	8392	11/23/15	16:07	SW3510C8082A
decachlorobiphenyl SUR	**22** *	30-150	%	1	AM	11/19/15	8392	11/23/15	16:07	SW3510C8082A

**** The surrogate showed recovery outside the acceptance limits. No additional sample remained for re-analysis.***

Sample#: 34980-065
Sample ID: BM-14A
Matrix: Solid Percent Dry: 94.8% Results expressed on a dry weight basis.
Sampled: 11/12/15 12:32

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
PCB-1016	< 3.1	3.1	ug/g	20	AM	11/24/15	8404	12/1/15	0:08	SW3540C8082A
PCB-1221	< 3.1	3.1	ug/g	20	AM	11/24/15	8404	12/1/15	0:08	SW3540C8082A
PCB-1232	< 3.1	3.1	ug/g	20	AM	11/24/15	8404	12/1/15	0:08	SW3540C8082A
PCB-1242	< 3.1	3.1	ug/g	20	AM	11/24/15	8404	12/1/15	0:08	SW3540C8082A
PCB-1248	< 3.1	3.1	ug/g	20	AM	11/24/15	8404	12/1/15	0:08	SW3540C8082A
PCB-1254	**3.6**	3.1	ug/g	20	AM	11/24/15	8404	12/1/15	0:08	SW3540C8082A
PCB-1260	< 3.1	3.1	ug/g	20	AM	11/24/15	8404	12/1/15	0:08	SW3540C8082A
Surrogate Recovery		**Limits**								
tetrachloro-m-xylene SUR	**DOR**	30-150	%	20	AM	11/24/15	8404	12/1/15	0:08	SW3540C8082A
decachlorobiphenyl SUR	**DOR**	30-150	%	20	AM	11/24/15	8404	12/1/15	0:08	SW3540C8082A

DOR = Diluted out of calibration range.

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980
Sample#: 34980-033
Sample ID: LS-9
Matrix: Solid Percent Dry: 91.6% Results expressed on a dry weight basis.
Sampled: 11/12/15 12:15

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
naphthalene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	20:32	MA EPH
2-methylnaphthalene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	20:32	MA EPH
phenanthrene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	20:32	MA EPH
acenaphthene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	20:32	MA EPH
acenaphthylene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	20:32	MA EPH
fluorene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	20:32	MA EPH
anthracene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	20:32	MA EPH
fluoranthene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	20:32	MA EPH
pyrene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	20:32	MA EPH
benzo(a)anthracene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	20:32	MA EPH
chrysene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	20:32	MA EPH
benzo(b)fluoranthene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	20:32	MA EPH
benzo(k)fluoranthene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	20:32	MA EPH
benzo(a)pyrene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	20:32	MA EPH
indeno(1,2,3-cd)pyrene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	20:32	MA EPH
dibenzo(a,h)anthracene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	20:32	MA EPH
benzo(g,h,i)perylene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	20:32	MA EPH
Unadjusted C11-C22 Aromatics	< 21	21	ug/g	1	AM	11/19/15	8393	11/24/15	6:35	MA EPH
C9-C18 Aliphatics	< 21	21	ug/g	1	AM	11/19/15	8393	11/23/15	19:06	MA EPH
C19-C36 Aliphatics	< 21	21	ug/g	1	AM	11/19/15	8393	11/23/15	19:06	MA EPH
C11-C22 Aromatics	< 21	21	ug/g	1	AM	11/19/15	8393	11/24/15	6:35	MA EPH
Surrogate Recovery		**Limits**								
1-chloro-octadecane SUR	**61**	40-140	%	1	AM	11/19/15	8393	11/23/15	19:06	MA EPH
o-terphenyl SUR	**70**	40-140	%	1	AM	11/19/15	8393	11/24/15	6:35	MA EPH
2-fluorobiphenyl SUR	**90**	40-140	%	1	AM	11/19/15	8393	11/24/15	6:35	MA EPH
2-bromonaphthalene SUR	**96**	40-140	%	1	AM	11/19/15	8393	11/24/15	6:35	MA EPH

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980
Sample#: 34980-034
Sample ID: LS-14
Matrix: Solid Percent Dry: 90.6% Results expressed on a dry weight basis.
Sampled: 11/12/15 12:26

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
naphthalene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	21:09	MA EPH
2-methylnaphthalene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	21:09	MA EPH
phenanthrene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	21:09	MA EPH
acenaphthene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	21:09	MA EPH
acenaphthylene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	21:09	MA EPH
fluorene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	21:09	MA EPH
anthracene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	21:09	MA EPH
fluoranthene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	21:09	MA EPH
pyrene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	21:09	MA EPH
benzo(a)anthracene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	21:09	MA EPH
chrysene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	21:09	MA EPH
benzo(b)fluoranthene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	21:09	MA EPH
benzo(k)fluoranthene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	21:09	MA EPH
benzo(a)pyrene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	21:09	MA EPH
indeno(1,2,3-cd)pyrene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	21:09	MA EPH
dibenzo(a,h)anthracene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	21:09	MA EPH
benzo(g,h,i)perylene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	21:09	MA EPH
Unadjusted C11-C22 Aromatics	< 22	22	ug/g	1	AM	11/19/15	8393	11/24/15	7:00	MA EPH
C9-C18 Aliphatics	< 22	22	ug/g	1	AM	11/19/15	8393	11/23/15	19:31	MA EPH
C19-C36 Aliphatics	< 22	22	ug/g	1	AM	11/19/15	8393	11/23/15	19:31	MA EPH
C11-C22 Aromatics	< 22	22	ug/g	1	AM	11/19/15	8393	11/24/15	7:00	MA EPH
Surrogate Recovery		**Limits**								
1-chloro-octadecane SUR	**55**	40-140	%	1	AM	11/19/15	8393	11/23/15	19:31	MA EPH
o-terphenyl SUR	**71**	40-140	%	1	AM	11/19/15	8393	11/24/15	7:00	MA EPH
2-fluorobiphenyl SUR	**96**	40-140	%	1	AM	11/19/15	8393	11/24/15	7:00	MA EPH
2-bromonaphthalene SUR	**103**	40-140	%	1	AM	11/19/15	8393	11/24/15	7:00	MA EPH

Absolute Resource associates

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980
Sample#: 34980-035
Sample ID: LS-20
Matrix: Solid Percent Dry: 98% Results expressed on a dry weight basis.
Sampled: 11/12/15 13:05

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
naphthalene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	21:46	MA EPH
2-methylnaphthalene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	21:46	MA EPH
phenanthrene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	21:46	MA EPH
acenaphthene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	21:46	MA EPH
acenaphthylene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	21:46	MA EPH
fluorene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	21:46	MA EPH
anthracene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	21:46	MA EPH
fluoranthene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	21:46	MA EPH
pyrene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	21:46	MA EPH
benzo(a)anthracene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	21:46	MA EPH
chrysene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	21:46	MA EPH
benzo(b)fluoranthene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	21:46	MA EPH
benzo(k)fluoranthene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	21:46	MA EPH
benzo(a)pyrene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	21:46	MA EPH
indeno(1,2,3-cd)pyrene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	21:46	MA EPH
dibenzo(a,h)anthracene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	21:46	MA EPH
benzo(g,h,i)perylene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	21:46	MA EPH
Unadjusted C11-C22 Aromatics	< 19	19	ug/g	1	AM	11/19/15	8393	11/24/15	15:42	MA EPH
C9-C18 Aliphatics	< 19	19	ug/g	1	AM	11/19/15	8393	11/23/15	19:57	MA EPH
C19-C36 Aliphatics	< 19	19	ug/g	1	AM	11/19/15	8393	11/23/15	19:57	MA EPH
C11-C22 Aromatics	< 19	19	ug/g	1	AM	11/19/15	8393	11/24/15	15:42	MA EPH
Surrogate Recovery		**Limits**								
1-chloro-octadecane SUR	**49**	40-140	%	1	AM	11/19/15	8393	11/23/15	19:57	MA EPH
o-terphenyl SUR	**48**	40-140	%	1	AM	11/19/15	8393	11/24/15	15:42	MA EPH
2-fluorobiphenyl SUR	**65**	40-140	%	1	AM	11/19/15	8393	11/24/15	15:42	MA EPH
2-bromonaphthalene SUR	**70**	40-140	%	1	AM	11/19/15	8393	11/24/15	15:42	MA EPH

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980
Sample#: 34980-036
Sample ID: LS-22
Matrix: Solid Percent Dry: 92.5% Results expressed on a dry weight basis.
Sampled: 11/12/15 13:20

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
naphthalene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	22:23	MA EPH
2-methylnaphthalene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	22:23	MA EPH
phenanthrene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	22:23	MA EPH
acenaphthene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	22:23	MA EPH
acenaphthylene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	22:23	MA EPH
fluorene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	22:23	MA EPH
anthracene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	22:23	MA EPH
fluoranthene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	22:23	MA EPH
pyrene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	22:23	MA EPH
benzo(a)anthracene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	22:23	MA EPH
chrysene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	22:23	MA EPH
benzo(b)fluoranthene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	22:23	MA EPH
benzo(k)fluoranthene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	22:23	MA EPH
benzo(a)pyrene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	22:23	MA EPH
indeno(1,2,3-cd)pyrene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	22:23	MA EPH
dibenzo(a,h)anthracene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	22:23	MA EPH
benzo(g,h,i)perylene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/24/15	22:23	MA EPH
Unadjusted C11-C22 Aromatics	< 20	20	ug/g	1	AM	11/19/15	8393	11/24/15	16:07	MA EPH
C9-C18 Aliphatics	< 20	20	ug/g	1	AM	11/19/15	8393	11/23/15	20:22	MA EPH
C19-C36 Aliphatics	< 20	20	ug/g	1	AM	11/19/15	8393	11/23/15	20:22	MA EPH
C11-C22 Aromatics	< 20	20	ug/g	1	AM	11/19/15	8393	11/24/15	16:07	MA EPH
Surrogate Recovery		**Limits**								
1-chloro-octadecane SUR	**52**	40-140	%	1	AM	11/19/15	8393	11/23/15	20:22	MA EPH
o-terphenyl SUR	**50**	40-140	%	1	AM	11/19/15	8393	11/24/15	16:07	MA EPH
2-fluorobiphenyl SUR	**64**	40-140	%	1	AM	11/19/15	8393	11/24/15	16:07	MA EPH
2-bromonaphthalene SUR	**69**	40-140	%	1	AM	11/19/15	8393	11/24/15	16:07	MA EPH

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980
Sample#: 34980-037
Sample ID: LS-22 DUP
Matrix: Solid Percent Dry: 92.6% Results expressed on a dry weight basis.
Sampled: 11/12/15 15:20

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
naphthalene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	13:36	MA EPH
2-methylnaphthalene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	13:36	MA EPH
phenanthrene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	13:36	MA EPH
acenaphthene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	13:36	MA EPH
acenaphthylene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	13:36	MA EPH
fluorene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	13:36	MA EPH
anthracene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	13:36	MA EPH
fluoranthene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	13:36	MA EPH
pyrene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	13:36	MA EPH
benzo(a)anthracene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	13:36	MA EPH
chrysene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	13:36	MA EPH
benzo(b)fluoranthene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	13:36	MA EPH
benzo(k)fluoranthene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	13:36	MA EPH
benzo(a)pyrene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	13:36	MA EPH
indeno(1,2,3-cd)pyrene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	13:36	MA EPH
dibenzo(a,h)anthracene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	13:36	MA EPH
benzo(g,h,i)perylene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	13:36	MA EPH
Unadjusted C11-C22 Aromatics	< 20	20	ug/g	1	AM	11/19/15	8393	11/24/15	16:33	MA EPH
C9-C18 Aliphatics	< 20	20	ug/g	1	AM	11/19/15	8393	11/23/15	20:48	MA EPH
C19-C36 Aliphatics	< 20	20	ug/g	1	AM	11/19/15	8393	11/23/15	20:48	MA EPH
C11-C22 Aromatics	< 20	20	ug/g	1	AM	11/19/15	8393	11/24/15	16:33	MA EPH
Surrogate Recovery		**Limits**								
1-chloro-octadecane SUR	**58**	40-140	%	1	AM	11/19/15	8393	11/23/15	20:48	MA EPH
o-terphenyl SUR	**53**	40-140	%	1	AM	11/19/15	8393	11/24/15	16:33	MA EPH
2-fluorobiphenyl SUR	**61**	40-140	%	1	AM	11/19/15	8393	11/24/15	16:33	MA EPH
2-bromonaphthalene SUR	**65**	40-140	%	1	AM	11/19/15	8393	11/24/15	16:33	MA EPH

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980
Sample#: 34980-038
Sample ID: LS-29
Matrix: Solid Percent Dry: 97.7% Results expressed on a dry weight basis.
Sampled: 11/12/15 16:40

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
naphthalene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	14:13	MA EPH
2-methylnaphthalene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	14:13	MA EPH
phenanthrene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	14:13	MA EPH
acenaphthene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	14:13	MA EPH
acenaphthylene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	14:13	MA EPH
fluorene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	14:13	MA EPH
anthracene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	14:13	MA EPH
fluoranthene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	14:13	MA EPH
pyrene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	14:13	MA EPH
benzo(a)anthracene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	14:13	MA EPH
chrysene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	14:13	MA EPH
benzo(b)fluoranthene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	14:13	MA EPH
benzo(k)fluoranthene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	14:13	MA EPH
benzo(a)pyrene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	14:13	MA EPH
indeno(1,2,3-cd)pyrene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	14:13	MA EPH
dibenzo(a,h)anthracene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	14:13	MA EPH
benzo(g,h,i)perylene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	14:13	MA EPH
Unadjusted C11-C22 Aromatics	< 20	20	ug/g	1	AM	11/19/15	8393	11/24/15	16:58	MA EPH
C9-C18 Aliphatics	< 20	20	ug/g	1	AM	11/19/15	8393	11/23/15	21:13	MA EPH
C19-C36 Aliphatics	< 20	20	ug/g	1	AM	11/19/15	8393	11/23/15	21:13	MA EPH
C11-C22 Aromatics	< 20	20	ug/g	1	AM	11/19/15	8393	11/24/15	16:58	MA EPH
Surrogate Recovery		**Limits**								
1-chloro-octadecane SUR	**50**	40-140	%	1	AM	11/19/15	8393	11/23/15	21:13	MA EPH
o-terphenyl SUR	**45**	40-140	%	1	AM	11/19/15	8393	11/24/15	16:58	MA EPH
2-fluorobiphenyl SUR	**64**	40-140	%	1	AM	11/19/15	8393	11/24/15	16:58	MA EPH
2-bromonaphthalene SUR	**69**	40-140	%	1	AM	11/19/15	8393	11/24/15	16:58	MA EPH

Absolute Resource associates

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980
Sample#: 34980-039
Sample ID: LS-32
Matrix: Solid Percent Dry: 95.3% Results expressed on a dry weight basis.
Sampled: 11/12/15 16:55

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
naphthalene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	14:50	MA EPH
2-methylnaphthalene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	14:50	MA EPH
phenanthrene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	14:50	MA EPH
acenaphthene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	14:50	MA EPH
acenaphthylene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	14:50	MA EPH
fluorene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	14:50	MA EPH
anthracene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	14:50	MA EPH
fluoranthene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	14:50	MA EPH
pyrene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	14:50	MA EPH
benzo(a)anthracene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	14:50	MA EPH
chrysene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	14:50	MA EPH
benzo(b)fluoranthene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	14:50	MA EPH
benzo(k)fluoranthene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	14:50	MA EPH
benzo(a)pyrene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	14:50	MA EPH
indeno(1,2,3-cd)pyrene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	14:50	MA EPH
dibenzo(a,h)anthracene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	14:50	MA EPH
benzo(g,h,i)perylene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	14:50	MA EPH
Unadjusted C11-C22 Aromatics	< 20	20	ug/g	1	AM	11/19/15	8393	11/24/15	17:24	MA EPH
C9-C18 Aliphatics	< 20	20	ug/g	1	AM	11/19/15	8393	11/23/15	21:39	MA EPH
C19-C36 Aliphatics	< 20	20	ug/g	1	AM	11/19/15	8393	11/23/15	21:39	MA EPH
C11-C22 Aromatics	< 20	20	ug/g	1	AM	11/19/15	8393	11/24/15	17:24	MA EPH
Surrogate Recovery		**Limits**								
1-chloro-octadecane SUR	**51**	40-140	%	1	AM	11/19/15	8393	11/23/15	21:39	MA EPH
o-terphenyl SUR	**53**	40-140	%	1	AM	11/19/15	8393	11/24/15	17:24	MA EPH
2-fluorobiphenyl SUR	**68**	40-140	%	1	AM	11/19/15	8393	11/24/15	17:24	MA EPH
2-bromonaphthalene SUR	**74**	40-140	%	1	AM	11/19/15	8393	11/24/15	17:24	MA EPH

Absolute Resource associates

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980
Sample#: 34980-040
Sample ID: LS-34
Matrix: Solid Percent Dry: 98% Results expressed on a dry weight basis.
Sampled: 11/12/15 17:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
naphthalene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	15:27	MA EPH
2-methylnaphthalene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	15:27	MA EPH
phenanthrene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	15:27	MA EPH
acenaphthene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	15:27	MA EPH
acenaphthylene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	15:27	MA EPH
fluorene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	15:27	MA EPH
anthracene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	15:27	MA EPH
fluoranthene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	15:27	MA EPH
pyrene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	15:27	MA EPH
benzo(a)anthracene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	15:27	MA EPH
chrysene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	15:27	MA EPH
benzo(b)fluoranthene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	15:27	MA EPH
benzo(k)fluoranthene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	15:27	MA EPH
benzo(a)pyrene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	15:27	MA EPH
indeno(1,2,3-cd)pyrene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	15:27	MA EPH
dibenzo(a,h)anthracene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	15:27	MA EPH
benzo(g,h,i)perylene	< 0.2	0.2	ug/g	1	AJD	11/19/15	8393	11/25/15	15:27	MA EPH
Unadjusted C11-C22 Aromatics	< 20	20	ug/g	1	AM	11/19/15	8393	12/4/15	11:16	MA EPH
C9-C18 Aliphatics	< 20	20	ug/g	1	AM	11/19/15	8393	11/23/15	22:04	MA EPH
C19-C36 Aliphatics	< 20	20	ug/g	1	AM	11/19/15	8393	11/23/15	22:04	MA EPH
C11-C22 Aromatics	< 20	20	ug/g	1	AM	11/19/15	8393	12/4/15	11:16	MA EPH
Surrogate Recovery		**Limits**								
1-chloro-octadecane SUR	**57**	40-140	%	1	AM	11/19/15	8393	11/23/15	22:04	MA EPH
o-terphenyl SUR	**53**	40-140	%	1	AM	11/19/15	8393	12/4/15	11:16	MA EPH
2-fluorobiphenyl SUR	**75**	40-140	%	1	AM	11/19/15	8393	12/4/15	11:16	MA EPH
2-bromonaphthalene SUR	**77**	40-140	%	1	AM	11/19/15	8393	12/4/15	11:16	MA EPH

Absolute Resource associates

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980

Sample#: 34980-031
Sample ID: BM-15
Matrix: Solid Percent Dry: 81.9% Results expressed on a dry weight basis.
Sampled: 11/13/15 13:45

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Lead	**550**	1.2	ug/g	1	AC	12/2/15	8415	12/2/15	19:41	SW3051A6010C

Sample#: 34980-041
Sample ID: Eq Blk Knife
Matrix: Water
Sampled: 11/13/15 16:15

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Mercury	< 0.0002	0.0002	mg/L	1	AC	11/19/15	8388	11/19/15	16:42	SW7470A

Sample#: 34980-043
Sample ID: 153-1 Carpet DUP
Matrix: Solid
Sampled: 11/13/15 15:45

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Mercury	< 0.17	0.17	ug/g	1	AC	12/3/15	8418	12/4/15	11:13	SW7471B

Sample#: 34980-044
Sample ID: 153-1 Carpet
Matrix: Solid
Sampled: 11/13/15 15:45

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Mercury	< 0.18	0.18	ug/g	1	AC	12/3/15	8418	12/4/15	11:19	SW7471B

Sample#: 34980-045
Sample ID: 153-3 Carpet
Matrix: Solid
Sampled: 11/13/15 16:15

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Mercury	**0.19**	0.18	ug/g	1	AC	12/3/15	8418	12/4/15	11:21	SW7471B

Sample#: 34980-046
Sample ID: 153-2 Carpet
Matrix: Solid
Sampled: 11/13/15 16:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Mercury	< 0.17	0.17	ug/g	1	AC	12/3/15	8418	12/4/15	11:22	SW7471B

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980

Sample#: 34980-047
Sample ID: 153-2 Wipe
Matrix: Wipe
Sampled: 11/13/15 16:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Mercury	< 0.04	0.04	ug/wipe	1	AC	12/3/15	8419	12/4/15	12:01	SW7471B

Sample#: 34980-048
Sample ID: 153-3 Wipe
Matrix: Wipe
Sampled: 11/13/15 16:15

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Mercury	**0.09**	0.04	ug/wipe	1	AC	12/3/15	8419	12/4/15	12:02	SW7471B

Sample#: 34980-049
Sample ID: 153-1 Wipe
Matrix: Wipe
Sampled: 11/13/15 15:45

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Mercury	< 0.04	0.04	ug/wipe	1	AC	12/3/15	8419	12/4/15	12:04	SW7471B

Sample#: 34980-050
Sample ID: 153-1 Wipe DUP
Matrix: Wipe
Sampled: 11/13/15 15:45

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Mercury	**0.07**	0.04	ug/wipe	1	AC	12/3/15	8419	12/4/15	12:06	SW7471B

Sample#: 34980-051
Sample ID: 85 Carpet Wipe
Matrix: Wipe
Sampled: 11/13/15 13:25

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Mercury	< 0.04	0.04	ug/wipe	1	AC	12/3/15	8419	12/4/15	12:08	SW7471B

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980

Sample#: 34980-055
Sample ID: SS-3
Matrix: Solid Percent Dry: 85.1% Results expressed on a dry weight basis.
Sampled: 11/13/15 11:02

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	**18**	1.1	ug/g	1	AC	12/2/15	8415	12/2/15	19:49	SW3051A6010C
Barium	**150**	6	ug/g	1	AC	12/2/15	8415	12/2/15	19:49	SW3051A6010C
Cadmium	**22**	0.4	ug/g	1	AC	12/2/15	8415	12/2/15	19:49	SW3051A6010C
Chromium	**250**	6	ug/g	1	AC	12/2/15	8415	12/2/15	19:49	SW3051A6010C
Lead	**410**	1.1	ug/g	1	AC	12/2/15	8415	12/2/15	19:49	SW3051A6010C
Mercury	< 0.19	0.19	ug/g	1	AC	12/3/15	8418	12/4/15	11:24	SW7471B
Selenium	< 6	6	ug/g	1	AC	12/2/15	8415	12/2/15	19:49	SW3051A6010C
Silver	**12**	0.8	ug/g	1	AC	12/2/15	8415	12/2/15	19:49	SW3051A6010C

Sample#: 34980-060
Sample ID: TP-1
Matrix: Solid Percent Dry: 92.6% Results expressed on a dry weight basis.
Sampled: 11/13/15 11:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	**2.6**	1.1	ug/g	1	AC	12/2/15	8415	12/2/15	19:57	SW3051A6010C
Barium	**13**	5	ug/g	1	AC	12/2/15	8415	12/2/15	19:57	SW3051A6010C
Cadmium	< 0.4	0.4	ug/g	1	AC	12/2/15	8415	12/2/15	19:57	SW3051A6010C
Chromium	**11**	5	ug/g	1	AC	12/2/15	8415	12/2/15	19:57	SW3051A6010C
Lead	**5.6**	1.1	ug/g	1	AC	12/2/15	8415	12/2/15	19:57	SW3051A6010C
Mercury	< 0.19	0.19	ug/g	1	AC	12/3/15	8418	12/4/15	11:26	SW7471B
Selenium	< 5	5	ug/g	1	AC	12/2/15	8415	12/2/15	19:57	SW3051A6010C
Silver	< 0.8	0.8	ug/g	1	AC	12/2/15	8415	12/2/15	19:57	SW3051A6010C

Sample#: 34980-061
Sample ID: TP-1DUP
Matrix: Solid Percent Dry: 93.9% Results expressed on a dry weight basis.
Sampled: 11/13/15 11:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	**2.1**	1.0	ug/g	1	AC	12/2/15	8415	12/2/15	20:04	SW3051A6010C
Barium	**8**	5	ug/g	1	AC	12/2/15	8415	12/2/15	20:04	SW3051A6010C
Cadmium	< 0.4	0.4	ug/g	1	AC	12/2/15	8415	12/2/15	20:04	SW3051A6010C
Chromium	**9**	5	ug/g	1	AC	12/2/15	8415	12/2/15	20:04	SW3051A6010C
Lead	**4.6**	1.0	ug/g	1	AC	12/2/15	8415	12/2/15	20:04	SW3051A6010C
Mercury	< 0.19	0.19	ug/g	1	AC	12/3/15	8418	12/4/15	11:28	SW7471B
Selenium	< 5	5	ug/g	1	AC	12/2/15	8415	12/2/15	20:04	SW3051A6010C
Silver	< 0.7	0.7	ug/g	1	AC	12/2/15	8415	12/2/15	20:04	SW3051A6010C

Project ID: HCPC/Corea 1014-253-00
Job ID: 34980
Sample#: 34980-062
Sample ID: TP-2
Matrix: Solid Percent Dry: 90.1% Results expressed on a dry weight basis.
Sampled: 11/13/15 11:45

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	**2.6**	1.1	ug/g	1	AC	12/2/15	8415	12/2/15	20:11	SW3051A6010C
Barium	**18**	6	ug/g	1	AC	12/2/15	8415	12/2/15	20:11	SW3051A6010C
Cadmium	< 0.4	0.4	ug/g	1	AC	12/2/15	8415	12/2/15	20:11	SW3051A6010C
Chromium	**14**	6	ug/g	1	AC	12/2/15	8415	12/2/15	20:11	SW3051A6010C
Lead	**5.3**	1.1	ug/g	1	AC	12/2/15	8415	12/2/15	20:11	SW3051A6010C
Mercury	< 0.19	0.19	ug/g	1	AC	12/3/15	8418	12/4/15	11:33	SW7471B
Selenium	< 6	6	ug/g	1	AC	12/2/15	8415	12/2/15	20:11	SW3051A6010C
Silver	< 0.8	0.8	ug/g	1	AC	12/2/15	8415	12/2/15	20:11	SW3051A6010C

Absolute Resource associates

Project ID: 1014-253-00 HCPC/Corea
Job ID: 34980
Sample #: 34980-052
Sample ID: 153-1 TCLP
Matrix: TCLP Extract
Sampled: 11/13/15 15:45
TCLP: 12/2/15

Parameter	Result	Reporting Limit	TCLP Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Mercury	< 0.0020	0.0020	0.2	mg/L	1	AC	12/3/15	8417	12/3/15	16:07	SW1311 SW7470A

Quality Control Report

Absolute Resource associates
124 Heritage Avenue Unit 16
Portsmouth, NH 03801
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Absolute Resource associates

Case Narrative
Lab # 34980

Sample Receiving and Chain of Custody Discrepancies

Samples were received in acceptable condition, in two coolers, at 4 and 5 degrees C, on ice, and in accordance with sample handling, preservation and integrity guidelines.

Calibration

No exceptions noted.

Method Blank

No exceptions noted.

Surrogate Recoveries

SVOC: The surrogates, nitrobenzene-D5 and p-terphenyl-D14, for sample 34980-056 showed recovery outside the acceptance limits. Matrix interference suspected.
PCB: The surrogate, decachlorobiphenyl, in the sample 34980-023 did not meet the acceptance limits due to an obvious matrix interference.
PCB: The surrogate, decachlorobiphenyl, in the LCS/D8392 and sample 34980-042 did not meet the acceptance limits due to a suspected interference exhibited during the extraction process. The surrogate, tetrachloro-m-xylene, and the spiking solution containing PCB-1016 and PCB-1260 showed acceptable recovery. No impact to the data suspected.
PCB: The surrogate, tetrachloro-m-xylene, for 34980-007 was above the acceptance criteria. Since no aroclors were detected above the quantitation limit, there is no impact to the data.
PCB: The surrogates were diluted out of the calibration range in the following samples: 34980-008, -017, -020, -021, -024, -025, -029, -030, and -065.

Laboratory Control Sample Results

VOC: The MLCS/D8401 did not meet the acceptance criteria for vinyl chloride and bromomethane. Since <10% of the compounds were outside of the acceptance criteria, reanalysis is not required.
EPH: The LCS8393 did not meet the acceptance criteria for acenaphthylene. The recovery was acceptable in the LCSD. Since <10% of the compounds were outside of the acceptance criteria, reanalysis is not required.

SVOC: The LCS8375 did not meet the acceptance criteria for hexachlorocyclopentadiene. Since <10% of the compounds were outside of the acceptance criteria, reanalysis is not required.

Matrix Spike/Matrix Spike Duplicate/Duplicate Results

SVOC: The matrix spike for 34980-062 did not meet the acceptance criteria for several analytes. Refer to QC report for specific analytes. The associated batch QC showed acceptable recovery. Matrix interference suspected.

Other

PCB: The following samples required a re-analysis at a dilution due to matrix interferences: 34980-018 and -026.
Reporting Limits: Dilutions performed during the analysis are noted on the result pages.

No other exceptions noted.

- QC Report -

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits	RPD	RPD Limit
SW5035A8260C	MB8401	dichlorodifluoromethane		<	0.1	ug/g					
		chloromethane		<	0.1	ug/g					
		vinyl chloride		<	0.1	ug/g					
		bromomethane		<	0.2	ug/g					
		chloroethane		<	0.1	ug/g					
		trichlorofluoromethane		<	0.1	ug/g					
		diethyl ether		<	0.5	ug/g					
		acetone		<	2.5	ug/g					
		1,1-dichloroethene		<	0.1	ug/g					
		methylene chloride		<	0.2	ug/g					
		carbon disulfide		<	0.1	ug/g					
		methyl t-butyl ether (MTBE)		<	0.1	ug/g					
		trans-1,2-dichloroethene		<	0.1	ug/g					
		1,1-dichloroethane		<	0.1	ug/g					
		2-butanone (MEK)		<	0.5	ug/g					
		2,2-dichloropropane		<	0.1	ug/g					
		cis-1,2-dichloroethene		<	0.1	ug/g					
		chloroform		<	0.1	ug/g					
		bromochloromethane		<	0.1	ug/g					
		tetrahydrofuran (THF)		<	0.5	ug/g					
		1,1,1-trichloroethane		<	0.1	ug/g					
		1,1-dichloropropene		<	0.1	ug/g					
		carbon tetrachloride		<	0.1	ug/g					
		1,2-dichloroethane		<	0.1	ug/g					
		benzene		<	0.1	ug/g					
		trichloroethene		<	0.1	ug/g					
		1,2-dichloropropane		<	0.1	ug/g					
		bromodichloromethane		<	0.1	ug/g					
		dibromomethane		<	0.1	ug/g					
		4-methyl-2-pentanone (MIBK)		<	0.5	ug/g					
		cis-1,3-dichloropropene		<	0.1	ug/g					
		toluene		<	0.1	ug/g					
		trans-1,3-dichloropropene		<	0.1	ug/g					
		2-hexanone		<	0.5	ug/g					
		1,1,2-trichloroethane		<	0.1	ug/g					
		1,3-dichloropropane		<	0.1	ug/g					
		tetrachloroethene		<	0.1	ug/g					
		dibromochloromethane		<	0.1	ug/g					
		1,2-dibromoethane (EDB)		<	0.1	ug/g					
		chlorobenzene		<	0.1	ug/g					
		1,1,1,2-tetrachloroethane		<	0.1	ug/g					
		ethylbenzene		<	0.1	ug/g					
		m&p-xylenes		<	0.1	ug/g					
		o-xylene		<	0.1	ug/g					
		styrene		<	0.1	ug/g					
		bromoform		<	0.1	ug/g					
		isopropylbenzene		<	0.1	ug/g					
		1,1,2,2-tetrachloroethane		<	0.1	ug/g					
		1,2,3-trichloropropane		<	0.1	ug/g					
		n-propylbenzene		<	0.1	ug/g					

Absolute Resource associates

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5035A8260C	MB8401	bromobenzene		<	0.1	ug/g						
		1,3,5-trimethylbenzene		<	0.1	ug/g						
		2-chlorotoluene		<	0.1	ug/g						
		4-chlorotoluene		<	0.1	ug/g						
		tert-butylbenzene		<	0.1	ug/g						
		1,2,4-trimethylbenzene		<	0.1	ug/g						
		sec-butylbenzene		<	0.1	ug/g						
		1,3-dichlorobenzene		<	0.1	ug/g						
		4-isopropyltoluene		<	0.1	ug/g						
		1,4-dichlorobenzene		<	0.1	ug/g						
		1,2-dichlorobenzene		<	0.1	ug/g						
		n-butylbenzene		<	0.1	ug/g						
		1,2-dibromo-3-chloropropane (DBCP)		<	0.1	ug/g						
		1,2,4-trichlorobenzene		<	0.1	ug/g						
		hexachlorobutadiene		<	0.1	ug/g						
		naphthalene		<	0.2	ug/g						
		1,2,3-trichlorobenzene		<	0.1	ug/g						
		dibromofluoromethane SUR			83	%			78	114		
		toluene-D8 SUR			102	%			88	110		
		4-bromofluorobenzene SUR			96	%			86	115		
		a,a,a-trifluorotoluene SUR			114	%			70	130		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R		Limits		RPD	RPD Limit
SW5035A8260C	MLCS8401	dichlorodifluoromethane			0.8	ug/g	1	82		70	130		
		chloromethane			0.8	ug/g	1	82		70	130		
		vinyl chloride			0.7	ug/g	1	70		70	130		
		bromomethane			0.6	ug/g	1	60	*	70	130		
		chloroethane			1.1	ug/g	1	114		70	130		
		trichlorofluoromethane			1.1	ug/g	1	107		70	130		
		diethyl ether			1.1	ug/g	1	108		70	130		
		acetone		<	2.5	ug/g	1	113					
		1,1-dichloroethene			0.9	ug/g	1	88		70	130		
		methylene chloride			1.0	ug/g	1	103		70	130		
		carbon disulfide			1.1	ug/g	1	108		70	130		
		methyl t-butyl ether (MTBE)			1.1	ug/g	1	108		70	130		
		trans-1,2-dichloroethene			1.0	ug/g	1	95		70	130		
		1,1-dichloroethane			1.0	ug/g	1	102		70	130		
		2-butanone (MEK)			1.1	ug/g	1	105		70	130		
		2,2-dichloropropane			1.0	ug/g	1	99		70	130		
		cis-1,2-dichloroethene			1.0	ug/g	1	102		70	130		
		chloroform			1.0	ug/g	1	102		70	130		
		bromochloromethane			0.9	ug/g	1	92		70	130		
		tetrahydrofuran (THF)			1.1	ug/g	1	114		70	130		
		1,1,1-trichloroethane			1.0	ug/g	1	100		70	130		
		1,1-dichloropropene			1.0	ug/g	1	97		70	130		
		carbon tetrachloride			0.9	ug/g	1	94		70	130		
		1,2-dichloroethane			1.1	ug/g	1	106		70	130		
		benzene			1.1	ug/g	1	108		70	130		
		trichloroethene			1.1	ug/g	1	110		70	130		
		1,2-dichloropropane			1.1	ug/g	1	108		70	130		
		bromodichloromethane			1.0	ug/g	1	105		70	130		
		dibromomethane			1.0	ug/g	1	103		70	130		
		4-methyl-2-pentanone (MIBK)			1.1	ug/g	1	109		70	130		
		cis-1,3-dichloropropene			1.1	ug/g	1	109		70	130		
		toluene			1.1	ug/g	1	113		70	130		
		trans-1,3-dichloropropene			1.1	ug/g	1	110		70	130		
		2-hexanone			1.2	ug/g	1	122		70	130		
		1,1,2-trichloroethane			1.1	ug/g	1	108		70	130		
		1,3-dichloropropane			1.0	ug/g	1	102		70	130		
		tetrachloroethene			1.1	ug/g	1	105		70	130		
		dibromochloromethane			1.0	ug/g	1	96		70	130		
		1,2-dibromoethane (EDB)			1.1	ug/g	1	106		70	130		
		chlorobenzene			1.1	ug/g	1	108		70	130		
		1,1,1,2-tetrachloroethane			1.1	ug/g	1	106		70	130		
		ethylbenzene			1.0	ug/g	1	99		70	130		
		m&p-xylenes			2.1	ug/g	2	107		70	130		
		o-xylene			1.1	ug/g	1	112		70	130		
		styrene			1.1	ug/g	1	112		70	130		
		bromoform			0.9	ug/g	1	93		70	130		
		isopropylbenzene			1.0	ug/g	1	103		70	130		
		1,1,2,2-tetrachloroethane			1.0	ug/g	1	102		70	130		
		1,2,3-trichloropropane			1.1	ug/g	1	107		70	130		
		n-propylbenzene			1.0	ug/g	1	100		70	130		
		bromobenzene			1.1	ug/g	1	109		70	130		

Absolute Resource associates

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5035A8260C	MLCS8401	1,3,5-trimethylbenzene		1.0	ug/g	1	104	70	130		
		2-chlorotoluene		1.0	ug/g	1	100	70	130		
		4-chlorotoluene		1.1	ug/g	1	107	70	130		
		tert-butylbenzene		1.0	ug/g	1	102	70	130		
		1,2,4-trimethylbenzene		1.0	ug/g	1	102	70	130		
		sec-butylbenzene		1.0	ug/g	1	102	70	130		
		1,3-dichlorobenzene		1.1	ug/g	1	109	70	130		
		4-isopropyltoluene		1.1	ug/g	1	108	70	130		
		1,4-dichlorobenzene		1.1	ug/g	1	110	70	130		
		1,2-dichlorobenzene		1.1	ug/g	1	112	70	130		
		n-butylbenzene		1.0	ug/g	1	104	70	130		
		1,2-dibromo-3-chloropropane (DBCP)		1.0	ug/g	1	99	70	130		
		1,2,4-trichlorobenzene		1.2	ug/g	1	119	70	130		
		hexachlorobutadiene		1.3	ug/g	1	126	70	130		
		naphthalene		1.1	ug/g	1	112	70	130		
		1,2,3-trichlorobenzene		1.2	ug/g	1	124	70	130		
		dibromofluoromethane SUR		96	%			78	114		
		toluene-D8 SUR		102	%			88	110		
		4-bromofluorobenzene SUR		106	%			86	115		
		a,a,a-trifluorotoluene SUR		115	%			70	130		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R		Limits		RPD	RPD Limit
SW5035A8260C	MLCSD8401	dichlorodifluoromethane			0.8	ug/g	1	79		70	130	4	30
		chloromethane			0.8	ug/g	1	79		70	130	4	30
		vinyl chloride			0.7	ug/g	1	66	*	70	130	5	30
		bromomethane			0.6	ug/g	1	62	*	70	130	3	30
		chloroethane			1.1	ug/g	1	114		70	130	0	30
		trichlorofluoromethane			1.0	ug/g	1	101		70	130	6	30
		diethyl ether			1.1	ug/g	1	109		70	130	1	30
		acetone		<	2.5	ug/g	1	120				6	30
		1,1-dichloroethene			0.8	ug/g	1	79		70	130	11	30
		methylene chloride			1.0	ug/g	1	98		70	130	5	30
		carbon disulfide			1.1	ug/g	1	110		70	130	1	30
		methyl t-butyl ether (MTBE)			1.1	ug/g	1	111		70	130	2	30
		trans-1,2-dichloroethene			0.9	ug/g	1	91		70	130	5	30
		1,1-dichloroethane			1.0	ug/g	1	98		70	130	5	30
		2-butanone (MEK)			1.2	ug/g	1	116		70	130	9	30
		2,2-dichloropropane			0.9	ug/g	1	94		70	130	5	30
		cis-1,2-dichloroethene			1.0	ug/g	1	96		70	130	6	30
		chloroform			1.0	ug/g	1	99		70	130	3	30
		bromochloromethane			0.9	ug/g	1	92		70	130	0	30
		tetrahydrofuran (THF)			1.2	ug/g	1	124		70	130	9	30
		1,1,1-trichloroethane			1.0	ug/g	1	96		70	130	5	30
		1,1-dichloropropene			0.9	ug/g	1	93		70	130	4	30
		carbon tetrachloride			0.9	ug/g	1	89		70	130	5	30
		1,2-dichloroethane			1.0	ug/g	1	103		70	130	3	30
		benzene			1.0	ug/g	1	103		70	130	5	30
		trichloroethene			1.0	ug/g	1	103		70	130	6	30
		1,2-dichloropropane			1.0	ug/g	1	105		70	130	3	30
		bromodichloromethane			1.0	ug/g	1	101		70	130	4	30
		dibromomethane			1.0	ug/g	1	101		70	130	2	30
		4-methyl-2-pentanone (MIBK)			1.2	ug/g	1	116		70	130	6	30
		cis-1,3-dichloropropene			1.1	ug/g	1	106		70	130	3	30
		toluene			1.1	ug/g	1	109		70	130	4	30
		trans-1,3-dichloropropene			1.1	ug/g	1	107		70	130	2	30
		2-hexanone			1.3	ug/g	1	126		70	130	3	30
		1,1,2-trichloroethane			1.0	ug/g	1	105		70	130	3	30
		1,3-dichloropropane			1.0	ug/g	1	97		70	130	5	30
		tetrachloroethene			1.0	ug/g	1	98		70	130	7	30
		dibromochloromethane			0.9	ug/g	1	91		70	130	5	30
		1,2-dibromoethane (EDB)			1.0	ug/g	1	103		70	130	3	30
		chlorobenzene			1.0	ug/g	1	103		70	130	5	30
		1,1,1,2-tetrachloroethane			1.0	ug/g	1	101		70	130	5	30
		ethylbenzene			0.9	ug/g	1	95		70	130	5	30
		m&p-xylenes			2.0	ug/g	2	102		70	130	5	30
		o-xylene			1.1	ug/g	1	106		70	130	5	30
		styrene			1.1	ug/g	1	108		70	130	3	30
		bromoform			0.9	ug/g	1	90		70	130	3	30
		isopropylbenzene			1.0	ug/g	1	97		70	130	5	30
		1,1,2,2-tetrachloroethane			1.0	ug/g	1	101		70	130	1	30
		1,2,3-trichloropropane			1.0	ug/g	1	101		70	130	6	30
		n-propylbenzene			0.9	ug/g	1	94		70	130	6	30
		bromobenzene			1.0	ug/g	1	103		70	130	5	30

Absolute Resource associates

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW5035A8260C	MLCSD8401	1,3,5-trimethylbenzene		1.0	ug/g	1	98	70	130	6	30
		2-chlorotoluene		0.9	ug/g	1	95	70	130	5	30
		4-chlorotoluene		1.0	ug/g	1	101	70	130	5	30
		tert-butylbenzene		0.9	ug/g	1	93	70	130	10	30
		1,2,4-trimethylbenzene		1.0	ug/g	1	97	70	130	4	30
		sec-butylbenzene		1.0	ug/g	1	97	70	130	5	30
		1,3-dichlorobenzene		1.0	ug/g	1	104	70	130	5	30
		4-isopropyltoluene		1.0	ug/g	1	102	70	130	6	30
		1,4-dichlorobenzene		1.0	ug/g	1	104	70	130	5	30
		1,2-dichlorobenzene		1.1	ug/g	1	106	70	130	5	30
		n-butylbenzene		1.0	ug/g	1	99	70	130	4	30
		1,2-dibromo-3-chloropropane (DBCP)		1.0	ug/g	1	98	70	130	1	30
		1,2,4-trichlorobenzene		1.2	ug/g	1	115	70	130	3	30
		hexachlorobutadiene		1.2	ug/g	1	122	70	130	3	30
		naphthalene		1.1	ug/g	1	114	70	130	2	30
		1,2,3-trichlorobenzene		1.2	ug/g	1	125	70	130	0	30
		dibromofluoromethane SUR		100	%			78	114		
		toluene-D8 SUR		102	%			88	110		
		4-bromofluorobenzene SUR		106	%			86	115		
		a,a,a-trifluorotoluene SUR		112	%			70	130		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R		Limits		RPD	RPD Limit
MA EPH	BLK8393	naphthalene		<	0.2	ug/g							
		2-methylnaphthalene		<	0.2	ug/g							
		phenanthrene		<	0.2	ug/g							
		acenaphthene		<	0.2	ug/g							
		acenaphthylene		<	0.2	ug/g							
		fluorene		<	0.2	ug/g							
		anthracene		<	0.2	ug/g							
		fluoranthene		<	0.2	ug/g							
		pyrene		<	0.2	ug/g							
		benzo(a)anthracene		<	0.2	ug/g							
		chrysene		<	0.2	ug/g							
		benzo(b)fluoranthene		<	0.2	ug/g							
		benzo(k)fluoranthene		<	0.2	ug/g							
		benzo(a)pyrene		<	0.2	ug/g							
		indeno(1,2,3-cd)pyrene		<	0.2	ug/g							
		dibenzo(a,h)anthracene		<	0.2	ug/g							
		benzo(g,h,i)perylene		<	0.2	ug/g							
		Unadjusted C11-C22 Aromatics		<	20	ug/g							
		C9-C18 Aliphatics		<	20	ug/g							
		C19-C36 Aliphatics		<	20	ug/g							
		C11-C22 Aromatics		<	20	ug/g							
		1-chloro-octadecane SUR			55	%				40	140		
		o-terphenyl SUR			53	%				40	140		
		2-fluorobiphenyl SUR			67	%				40	140		
		2-bromonaphthalene SUR			72	%				40	140		
MA EPH	LCS8393	naphthalene			2.4	ug/g	6	40		40	140		
		2-methylnaphthalene			2.7	ug/g	6	44		40	140		
		phenanthrene			2.7	ug/g	6	45		40	140		
		acenaphthene			2.4	ug/g	6	40		40	140		
		acenaphthylene			2.4	ug/g	6	39	*	40	140		
		fluorene			2.7	ug/g	6	46		40	140		
		anthracene			2.6	ug/g	6	44		40	140		
		fluoranthene			2.9	ug/g	6	49		40	140		
		pyrene			2.5	ug/g	6	42		40	140		
		benzo(a)anthracene			3.2	ug/g	6	53		40	140		
		chrysene			2.9	ug/g	6	49		40	140		
		benzo(b)fluoranthene			3.0	ug/g	6	49		40	140		
		benzo(k)fluoranthene			2.8	ug/g	6	47		40	140		
		benzo(a)pyrene			2.9	ug/g	6	48		40	140		
		indeno(1,2,3-cd)pyrene			3.4	ug/g	6	56		40	140		
		dibenzo(a,h)anthracene			3.5	ug/g	6	58		40	140		
		benzo(g,h,i)perylene			3.3	ug/g	6	56		40	140		
		Unadjusted C11-C22 Aromatics			48	ug/g	102	47		40	140		
		C9-C18 Aliphatics			25	ug/g	36	69		40	140		
		C19-C36 Aliphatics			33	ug/g	48	69		40	140		
		C11-C22 Aromatics		<	20	ug/g							
		1-chloro-octadecane SUR			53	%				40	140		
		o-terphenyl SUR			52	%				40	140		
		2-fluorobiphenyl SUR			69	%				40	140		
		2-bromonaphthalene SUR			73	%				40	140		

Absolute Resource associates

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
MA EPH	LCSD8393	naphthalene			2.6	ug/g	6	44	40	140	9	25
		2-methylnaphthalene			2.8	ug/g	6	47	40	140	6	25
		phenanthrene			2.9	ug/g	6	49	40	140	9	25
		acenaphthene			2.6	ug/g	6	44	40	140	10	25
		acenaphthylene			2.6	ug/g	6	44	40	140	10	25
		fluorene			2.9	ug/g	6	48	40	140	6	25
		anthracene			2.9	ug/g	6	48	40	140	10	25
		fluoranthene			3.2	ug/g	6	54	40	140	10	25
		pyrene			2.7	ug/g	6	45	40	140	9	25
		benzo(a)anthracene			3.5	ug/g	6	58	40	140	9	25
		chrysene			3.2	ug/g	6	54	40	140	10	25
		benzo(b)fluoranthene			3.0	ug/g	6	50	40	140	3	25
		benzo(k)fluoranthene			3.4	ug/g	6	56	40	140	16	25
		benzo(a)pyrene			3.2	ug/g	6	54	40	140	11	25
		indeno(1,2,3-cd)pyrene			3.7	ug/g	6	61	40	140	9	25
		dibenzo(a,h)anthracene			3.8	ug/g	6	63	40	140	9	25
		benzo(g,h,i)perylene			3.7	ug/g	6	61	40	140	9	25
		Unadjusted C11-C22 Aromatics			53	ug/g	102	52	40	140	9	25
		C9-C18 Aliphatics			24	ug/g	36	66	40	140	5	25
		C19-C36 Aliphatics			34	ug/g	48	70	40	140	2	25
		C11-C22 Aromatics		<	20	ug/g						
		1-chloro-octadecane SUR			53	%			40	140		
		o-terphenyl SUR			54	%			40	140		
		2-fluorobiphenyl SUR			70	%			40	140		
		2-bromonaphthalene SUR			76	%			40	140		

Absolute Resource associates

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3510C8081B	BLK8383	alpha-BHC		<	0.04	ug/L						
		beta-BHC		<	0.04	ug/L						
		delta-BHC		<	0.04	ug/L						
		gamma-BHC (Lindane)		<	0.04	ug/L						
		Heptachlor		<	0.04	ug/L						
		Aldrin		<	0.04	ug/L						
		Heptachlor Epoxide		<	0.04	ug/L						
		Endosulfan I		<	0.04	ug/L						
		Dieldrin		<	0.04	ug/L						
		4,4'-DDE		<	0.04	ug/L						
		Endrin		<	0.04	ug/L						
		Endosulfan II		<	0.04	ug/L						
		4,4'-DDD		<	0.04	ug/L						
		Endosulfan Sulfate		<	0.04	ug/L						
		4,4'-DDT		<	0.04	ug/L						
		Methoxychlor		<	0.04	ug/L						
		Endrin Ketone		<	0.04	ug/L						
		Endrin Aldehyde		<	0.04	ug/L						
		alpha-Chlordane		<	0.04	ug/L						
		gamma-Chlordane		<	0.04	ug/L						
		Toxaphene		<	2.0	ug/L						
		tetrachloro-m-xylene SUR			63	%			30	150		
		decachlorobiphenyl SUR			78	%			30	150		
SW3510C8081B	LCS8383	Toxaphene										
		alpha-BHC			0.42	ug/L	1	42	40	140		
		beta-BHC			0.44	ug/L	1	44	40	140		
		delta-BHC			0.43	ug/L	1	43	40	140		
		gamma-BHC (Lindane)			0.42	ug/L	1	42	40	140		
		Heptachlor			0.45	ug/L	1	45	40	140		
		Aldrin			0.43	ug/L	1	43	40	140		
		Heptachlor Epoxide			0.47	ug/L	1	47	40	140		
		Endosulfan I			0.48	ug/L	1	48	40	140		
		Dieldrin			0.50	ug/L	1	50	40	140		
		4,4'-DDE			0.49	ug/L	1	49	40	140		
		Endrin			0.67	ug/L	1	67	40	140		
		Endosulfan II			0.49	ug/L	1	49	40	140		
		4,4'-DDD			0.49	ug/L	1	49	40	140		
		Endosulfan Sulfate			0.51	ug/L	1	51	40	140		
		4,4'-DDT			0.49	ug/L	1	49	40	140		
		Methoxychlor			0.54	ug/L	1	54	40	140		
		Endrin Ketone			0.51	ug/L	1	51	40	140		
		Endrin Aldehyde			0.46	ug/L	1	46	40	140		
		alpha-Chlordane			0.71	ug/L	1	71	40	140		
		gamma-Chlordane			0.43	ug/L	1	43	40	140		
		tetrachloro-m-xylene SUR			60	%			30	150		
		decachlorobiphenyl SUR			41	%			30	150		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3510C8082A	BLK8392	PCB-1016		<	0.30	ug/L						
		PCB-1221		<	0.30	ug/L						
		PCB-1232		<	0.30	ug/L						
		PCB-1242		<	0.30	ug/L						
		PCB-1248		<	0.30	ug/L						
		PCB-1254		<	0.30	ug/L						
		PCB-1260		<	0.30	ug/L						
		tetrachloro-m-xylene SUR			43	%			30	150		
		decachlorobiphenyl SUR			49	%			30	150		
SW3510C8082A	LCS8392	PCB-1016			1.1	ug/L	1	106	40	140		
		PCB-1221		<	0.3	ug/L						
		PCB-1232		<	0.3	ug/L						
		PCB-1242		<	0.3	ug/L						
		PCB-1248		<	0.3	ug/L						
		PCB-1254		<	0.3	ug/L						
		PCB-1260			1.1	ug/L	1	105	40	140		
		tetrachloro-m-xylene SUR			57	%			30	150		
		decachlorobiphenyl SUR			22	%			30	150		
SW3510C8082A	LCSD8392	PCB-1016			0.9	ug/L	1	91	40	140	15	20
		PCB-1221		<	0.3	ug/L						
		PCB-1232		<	0.3	ug/L						
		PCB-1242		<	0.3	ug/L						
		PCB-1248		<	0.3	ug/L						
		PCB-1254		<	0.3	ug/L						
		PCB-1260			1.0	ug/L	1	98	40	140	7	20
		tetrachloro-m-xylene SUR			54	%			30	150		
		decachlorobiphenyl SUR			19	%			30	150		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3540C8082A	BLK8394	PCB-1016		<	0.1	ug/g						
		PCB-1221		<	0.1	ug/g						
		PCB-1232		<	0.1	ug/g						
		PCB-1242		<	0.1	ug/g						
		PCB-1248		<	0.1	ug/g						
		PCB-1254		<	0.1	ug/g						
		PCB-1260		<	0.1	ug/g						
		tetrachloro-m-xylene SUR			62	%			30	150		
		decachlorobiphenyl SUR			59	%			30	150		
SW3540C8082A	LCS8394	PCB-1016			1.8	ug/g	2	90	40	140		
		PCB-1221		<	0.1	ug/g						
		PCB-1232		<	0.1	ug/g						
		PCB-1242		<	0.1	ug/g						
		PCB-1248		<	0.1	ug/g						
		PCB-1254		<	0.1	ug/g						
		PCB-1260			1.5	ug/g	2	74	40	140		
		tetrachloro-m-xylene SUR			67	%			30	150		
		decachlorobiphenyl SUR			55	%			30	150		
SW3540C8082A	LCSD8394	PCB-1016			2.0	ug/g	2	101	40	140	11	30
		PCB-1221		<	0.1	ug/g						
		PCB-1232		<	0.1	ug/g						
		PCB-1242		<	0.1	ug/g						
		PCB-1248		<	0.1	ug/g						
		PCB-1254		<	0.1	ug/g						
		PCB-1260			1.7	ug/g	2	85	40	140	13	30
		tetrachloro-m-xylene SUR			68	%			30	150		
		decachlorobiphenyl SUR			63	%			30	150		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3540C8082A	BLK8404	PCB-1016		<	0.1	ug/g						
		PCB-1221		<	0.1	ug/g						
		PCB-1232		<	0.1	ug/g						
		PCB-1242		<	0.1	ug/g						
		PCB-1248		<	0.1	ug/g						
		PCB-1254		<	0.1	ug/g						
		PCB-1260		<	0.1	ug/g						
		tetrachloro-m-xylene SUR			106	%			30	150		
		decachlorobiphenyl SUR			112	%			30	150		
SW3540C8082A	LCS8404	PCB-1016			2.3	ug/g	2	115	40	140		
		PCB-1221		<	0.1	ug/g						
		PCB-1232		<	0.1	ug/g						
		PCB-1242		<	0.1	ug/g						
		PCB-1248		<	0.1	ug/g						
		PCB-1254		<	0.1	ug/g						
		PCB-1260			2.4	ug/g	2	119	40	140		
		tetrachloro-m-xylene SUR			99	%			30	150		
		decachlorobiphenyl SUR			102	%			30	150		
SW3540C8082A	LCSD8404	PCB-1016			2.6	ug/g	2	128	40	140	11	30
		PCB-1221		<	0.1	ug/g						
		PCB-1232		<	0.1	ug/g						
		PCB-1242		<	0.1	ug/g						
		PCB-1248		<	0.1	ug/g						
		PCB-1254		<	0.1	ug/g						
		PCB-1260			2.6	ug/g	2	132	40	140	10	30
		tetrachloro-m-xylene SUR			105	%			30	150		
		decachlorobiphenyl SUR			107	%			30	150		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3546/8081B	BLK8391	alpha-BHC		<	0.10	ug/g						
		beta-BHC		<	0.10	ug/g						
		delta-BHC		<	0.10	ug/g						
		gamma-BHC (Lindane)		<	0.10	ug/g						
		Heptachlor		<	0.10	ug/g						
		Aldrin		<	0.10	ug/g						
		Heptachlor Epoxide		<	0.10	ug/g						
		Endosulfan I		<	0.10	ug/g						
		Dieldrin		<	0.10	ug/g						
		4,4'-DDE		<	0.10	ug/g						
		Endrin		<	0.10	ug/g						
		Endosulfan II		<	0.10	ug/g						
		4,4'-DDD		<	0.10	ug/g						
		Endosulfan Sulfate		<	0.10	ug/g						
		4,4'-DDT		<	0.10	ug/g						
		Methoxychlor		<	0.10	ug/g						
		Endrin Ketone		<	0.10	ug/g						
		Endrin Aldehyde		<	0.10	ug/g						
		alpha-Chlordane		<	0.10	ug/g						
		gamma-Chlordane		<	0.10	ug/g						
		Toxaphene		<	0.40	ug/g						
		tetrachloro-m-xylene SUR			72	%			30	150		
		decachlorobiphenyl SUR			108	%			30	150		
SW3546/8081B	LCS8391	alpha-BHC			0.18	ug/g	0.4	44	40	140		
		beta-BHC			0.18	ug/g	0.4	44	40	140		
		delta-BHC			0.16	ug/g	0.4	41	40	140		
		gamma-BHC (Lindane)			0.18	ug/g	0.4	44	40	140		
		Heptachlor			0.21	ug/g	0.4	53	40	140		
		Aldrin			0.20	ug/g	0.4	50	40	140		
		Heptachlor Epoxide			0.21	ug/g	0.4	53	40	140		
		Endosulfan I			0.21	ug/g	0.4	53	40	140		
		Dieldrin			0.22	ug/g	0.4	56	40	140		
		4,4'-DDE			0.22	ug/g	0.4	54	40	140		
		Endrin			0.26	ug/g	0.4	66	40	140		
		Endosulfan II			0.22	ug/g	0.4	54	40	140		
		4,4'-DDD			0.20	ug/g	0.4	51	40	140		
		Endosulfan Sulfate			0.22	ug/g	0.4	55	40	140		
		4,4'-DDT			0.21	ug/g	0.4	53	40	140		
		Methoxychlor			0.24	ug/g	0.4	60	40	140		
		Endrin Ketone			0.24	ug/g	0.4	61	40	140		
		Endrin Aldehyde			0.20	ug/g	0.4	51	40	140		
		alpha-Chlordane			0.32	ug/g	0.4	80	40	140		
		gamma-Chlordane			0.19	ug/g	0.4	48	40	140		
		Toxaphene		<	0.40	ug/g						
		tetrachloro-m-xylene SUR			59	%			30	150		
		decachlorobiphenyl SUR			70	%			30	150		

Absolute Resource associates

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits	RPD	RPD Limit
SW3546/8270D	BLK8375	N-nitrosodimethylamine		<	0.2	ug/g					
		aniline		<	0.2	ug/g					
		phenol		<	0.2	ug/g					
		2-chlorophenol		<	0.5	ug/g					
		bis(2-chloroethyl)ether		<	0.2	ug/g					
		1,3-dichlorobenzene		<	0.2	ug/g					
		1,4-dichlorobenzene		<	0.2	ug/g					
		1,2-dichlorobenzene		<	0.2	ug/g					
		benzyl alcohol		<	0.2	ug/g					
		2-methylphenol		<	0.2	ug/g					
		bis(2-chloroisopropyl) ether		<	0.2	ug/g					
		hexachloroethane		<	0.2	ug/g					
		N-nitroso-di-N-propylamine		<	0.2	ug/g					
		4-methylphenol		<	0.2	ug/g					
		nitrobenzene		<	0.2	ug/g					
		isophorone		<	0.5	ug/g					
		2-nitrophenol		<	0.2	ug/g					
		2,4-dimethylphenol		<	0.2	ug/g					
		bis(2-chloroethoxy)methane		<	0.5	ug/g					
		2,4-dichlorophenol		<	0.5	ug/g					
		1,2,4-trichlorobenzene		<	0.5	ug/g					
		naphthalene		<	0.05	ug/g					
		benzoic acid		<	5.0	ug/g					
		4-chloroaniline		<	0.2	ug/g					
		hexachlorobutadiene		<	0.2	ug/g					
		4-chloro-3-methylphenol		<	0.2	ug/g					
		2-methylnaphthalene		<	0.05	ug/g					
		hexachlorocyclopentadiene		<	1.0	ug/g					
		2,4,6-trichlorophenol		<	0.2	ug/g					
		2,4,5-trichlorophenol		<	0.2	ug/g					
		2-chloronaphthalene		<	0.5	ug/g					
		2-nitroaniline		<	0.2	ug/g					
		acenaphthylene		<	0.05	ug/g					
		dimethylphthalate		<	0.5	ug/g					
		2,6-dinitrotoluene		<	0.2	ug/g					
		2,4-dinitrotoluene		<	0.2	ug/g					
		acenaphthene		<	0.05	ug/g					
		3-nitroaniline		<	0.2	ug/g					
		2,4-dinitrophenol		<	5.0	ug/g					
		dibenzofuran		<	0.05	ug/g					
		4-nitrophenol		<	1.0	ug/g					
		fluorene		<	0.05	ug/g					
		diethyl phthalate		<	0.5	ug/g					
		4-chlorophenyl phenyl ether		<	0.5	ug/g					
		4-nitroaniline		<	0.5	ug/g					
		4,6-dinitro-2-methylphenol		<	2.0	ug/g					
		azobenzene		<	0.2	ug/g					
		N-nitrosodiphenylamine		<	0.2	ug/g					
		4-bromophenyl phenyl ether		<	0.2	ug/g					
		hexachlorobenzene		<	0.2	ug/g					
		pentachlorophenol		<	1.0	ug/g					

Absolute Resource associates

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3546/8270D	BLK8375	phenanthrene		<	0.05	ug/g						
		anthracene		<	0.05	ug/g						
		carbazole		<	0.2	ug/g						
		di-n-butylphthalate		<	0.5	ug/g						
		fluoranthene		<	0.05	ug/g						
		benzidine		<	3.0	ug/g						
		pyrene		<	0.05	ug/g						
		butyl benzyl phthalate		<	0.5	ug/g						
		benzo(a)anthracene		<	0.05	ug/g						
		chrysene		<	0.05	ug/g						
		3,3'-dichlorobenzidine		<	3.0	ug/g						
		bis(2-ethylhexyl)phthalate		<	0.5	ug/g						
		di-n-octyl phthalate		<	0.2	ug/g						
		benzo(b)fluoranthene		<	0.05	ug/g						
		benzo(k)fluoranthene		<	0.05	ug/g						
		benzo(a)pyrene		<	0.02	ug/g						
		indeno(1,2,3-cd)pyrene		<	0.05	ug/g						
		dibenzo(a,h)anthracene		<	0.05	ug/g						
		benzo(g,h,i)perylene		<	0.05	ug/g						
		2-fluorophenol SUR			78	%			21	100		
		phenol-D5 SUR			80	%			10	102		
		2,4,6-tribromophenol SUR			118	%			10	123		
		nitrobenzene-D5 SUR			72	%			35	114		
		2-fluorobiphenyl SUR			72	%			43	116		
		p-terphenyl-D14 SUR			89	%			33	141		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R		Limits		RPD	RPD Limit
SW3546/8270D	LCS8375	N-nitrosodimethylamine			2.2	ug/g	4	55		40	140		
		aniline			2.2	ug/g	4	56		40	140		
		phenol			3.0	ug/g	4	76		30	130		
		2-chlorophenol			2.7	ug/g	4	68		30	130		
		bis(2-chloroethyl)ether			2.8	ug/g	4	70		40	140		
		1,3-dichlorobenzene			2.4	ug/g	4	60		40	140		
		1,4-dichlorobenzene			2.1	ug/g	4	54		40	140		
		1,2-dichlorobenzene			2.5	ug/g	4	61		40	140		
		benzyl alcohol			3.2	ug/g	4	80		30	130		
		2-methylphenol			3.0	ug/g	4	75		30	130		
		bis(2-chloroisopropyl) ether			2.6	ug/g	4	65		40	140		
		hexachloroethane			2.5	ug/g	4	64		40	140		
		N-nitroso-di-N-propylamine			2.7	ug/g	4	67		40	140		
		4-methylphenol			3.1	ug/g	4	77		30	130		
		nitrobenzene			2.5	ug/g	4	62		40	140		
		isophorone			2.8	ug/g	4	70		40	140		
		2-nitrophenol			2.3	ug/g	4	59		30	130		
		2,4-dimethylphenol			2.5	ug/g	4	61		30	130		
		bis(2-chloroethoxy)methane			3.0	ug/g	4	74		40	140		
		2,4-dichlorophenol			2.7	ug/g	4	68		30	130		
		1,2,4-trichlorobenzene			2.4	ug/g	4	60		40	140		
		naphthalene			2.4	ug/g	4	61		40	140		
		benzoic acid		<	5.0	ug/g							
		4-chloroaniline			2.1	ug/g	4	52		40	140		
		hexachlorobutadiene			2.5	ug/g	4	63		40	140		
		4-chloro-3-methylphenol			2.9	ug/g	4	74		30	130		
		2-methylnaphthalene			2.51	ug/g	4	63		40	140		
		hexachlorocyclopentadiene		<	1.0	ug/g	4	22	*	40	140		
		2,4,6-trichlorophenol			2.8	ug/g	4	70		30	130		
		2,4,5-trichlorophenol			2.9	ug/g	4	72		30	130		
		2-chloronaphthalene			2.3	ug/g	4	58		40	140		
		2-nitroaniline			2.6	ug/g	4	65		40	140		
		acenaphthylene			2.2	ug/g	4	56		40	140		
		dimethylphthalate			2.9	ug/g	4	73		40	140		
		2,6-dinitrotoluene			2.9	ug/g	4	71		40	140		
		2,4-dinitrotoluene			2.6	ug/g	4	66		40	140		
		acenaphthene			2.3	ug/g	4	57		40	140		
		3-nitroaniline			2.4	ug/g	4	60		40	140		
		2,4-dinitrophenol		<	5.0	ug/g							
		dibenzofuran			2.7	ug/g	4	67		40	140		
		4-nitrophenol			1.7	ug/g	4	43		30	130		
		fluorene			2.7	ug/g	4	68		40	140		
		diethyl phthalate			2.6	ug/g	4	65		40	140		
		4-chlorophenyl phenyl ether			2.9	ug/g	4	72		40	140		
		4-nitroaniline			2.6	ug/g	4	64		40	140		
		4,6-dinitro-2-methylphenol		<	2.0	ug/g							
		azobenzene			2.2	ug/g	4	56		40	140		
		N-nitrosodiphenylamine			2.9	ug/g	4	72		40	140		
		4-bromophenyl phenyl ether			2.8	ug/g	4	69		40	140		
		hexachlorobenzene			3.1	ug/g	4	78		40	140		
		pentachlorophenol			2.2	ug/g	4	55		30	130		

Absolute Resource associates

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3546/8270D	LCS8375	phenanthrene			2.7	ug/g	4	67	40	140		
		anthracene			2.5	ug/g	4	63	40	140		
		carbazole			2.8	ug/g	4	69	40	140		
		di-n-butylphthalate			2.4	ug/g	4	59	40	140		
		fluoranthene			2.7	ug/g	4	68	40	140		
		benzidine		<	3.0	ug/g						
		pyrene			2.6	ug/g	4	64	40	140		
		butyl benzyl phthalate			2.4	ug/g	4	61	40	140		
		benzo(a)anthracene			2.9	ug/g	4	72	40	140		
		chrysene			2.8	ug/g	4	69	40	140		
		3,3'-dichlorobenzidine		<	3.0	ug/g						
		bis(2-ethylhexyl)phthalate			2.5	ug/g	4	62	40	140		
		di-n-octyl phthalate			2.2	ug/g	4	56	40	140		
		benzo(b)fluoranthene			2.7	ug/g	4	68	40	140		
		benzo(k)fluoranthene			2.8	ug/g	4	70	40	140		
		benzo(a)pyrene			2.9	ug/g	4	72	40	140		
		indeno(1,2,3-cd)pyrene			3.1	ug/g	4	77	40	140		
		dibenzo(a,h)anthracene			3.1	ug/g	4	77	40	140		
		benzo(g,h,i)perylene			2.9	ug/g	4	73	40	140		
		2-fluorophenol SUR			74	%			21	100		
		phenol-D5 SUR			77	%			10	102		
		2,4,6-tribromophenol SUR			108	%			10	123		
		nitrobenzene-D5 SUR			67	%			35	114		
		2-fluorobiphenyl SUR			68	%			43	116		
		p-terphenyl-D14 SUR			78	%			33	141		

Absolute Resource associates

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R		Limits		RPD	RPD Limit
SW3546/8270D	MS8375	N-nitrosodimethylamine	34980-062		1.5	ug/g	4.37	34	*	40	140		
		aniline	34980-062		1.6	ug/g	4.37	35	*	40	140		
		phenol	34980-062		2.4	ug/g	4.37	54		30	130		
		2-chlorophenol	34980-062		2.0	ug/g	4.37	45		30	130		
		bis(2-chloroethyl)ether	34980-062		2.2	ug/g	4.37	51		40	140		
		1,3-dichlorobenzene	34980-062		1.5	ug/g	4.37	33	*	40	140		
		1,4-dichlorobenzene	34980-062		1.4	ug/g	4.37	31	*	40	140		
		1,2-dichlorobenzene	34980-062		1.6	ug/g	4.37	37	*	40	140		
		benzyl alcohol	34980-062		2.5	ug/g	4.37	57		30	130		
		2-methylphenol	34980-062		2.5	ug/g	4.37	56		30	130		
		bis(2-chloroisopropyl) ether	34980-062		1.8	ug/g	4.37	41		40	140		
		hexachloroethane	34980-062		1.3	ug/g	4.37	30	*	40	140		
		N-nitroso-di-N-propylamine	34980-062		2.0	ug/g	4.37	46		40	140		
		4-methylphenol	34980-062		2.5	ug/g	4.37	58		30	130		
		nitrobenzene	34980-062		1.8	ug/g	4.37	40		40	140		
		isophorone	34980-062		2.3	ug/g	4.37	52		40	140		
		2-nitrophenol	34980-062		1.8	ug/g	4.37	41		30	130		
		2,4-dimethylphenol	34980-062		2.1	ug/g	4.37	49		30	130		
		bis(2-chloroethoxy)methane	34980-062		2.3	ug/g	4.37	54		40	140		
		2,4-dichlorophenol	34980-062		2.3	ug/g	4.37	53		30	130		
		1,2,4-trichlorobenzene	34980-062		1.7	ug/g	4.37	40		40	140		
		naphthalene	34980-062		1.7	ug/g	4.37	39	*	40	140		
		benzoic acid	34980-062	<	5.5	ug/g							
		4-chloroaniline	34980-062		2.1	ug/g	4.37	48		40	140		
		hexachlorobutadiene	34980-062		1.8	ug/g	4.37	41		40	140		
		4-chloro-3-methylphenol	34980-062		2.6	ug/g	4.37	60		30	130		
		2-methylnaphthalene	34980-062		1.99	ug/g	4.378	45		40	140		
		hexachlorocyclopentadiene	34980-062	<	1.1	ug/g	4.37	17	*	40	140		
		2,4,6-trichlorophenol	34980-062		2.6	ug/g	4.37	60		30	130		
		2,4,5-trichlorophenol	34980-062		2.7	ug/g	4.37	63		30	130		
		2-chloronaphthalene	34980-062		1.8	ug/g	4.37	42		40	140		
		2-nitroaniline	34980-062		2.2	ug/g	4.37	49		40	140		
		acenaphthylene	34980-062		1.8	ug/g	4.37	41		40	140		
		dimethylphthalate	34980-062		2.5	ug/g	4.37	57		40	140		
		2,6-dinitrotoluene	34980-062		2.5	ug/g	4.37	56		40	140		
		2,4-dinitrotoluene	34980-062		2.4	ug/g	4.37	54		40	140		
		acenaphthene	34980-062		1.8	ug/g	4.37	42		40	140		
		3-nitroaniline	34980-062		2.2	ug/g	4.37	51		40	140		
		2,4-dinitrophenol	34980-062	<	5.5	ug/g							
		dibenzofuran	34980-062		2.2	ug/g	4.37	51		40	140		
		4-nitrophenol	34980-062		2.2	ug/g	4.37	50		30	130		
		fluorene	34980-062		2.3	ug/g	4.37	53		40	140		
		diethyl phthalate	34980-062		2.2	ug/g	4.37	51		40	140		
		4-chlorophenyl phenyl ether	34980-062		2.5	ug/g	4.37	57		40	140		
		4-nitroaniline	34980-062		2.2	ug/g	4.37	50		40	140		
		4,6-dinitro-2-methylphenol	34980-062	<	2.2	ug/g	4.37	45		30	130		
		azobenzene	34980-062		1.8	ug/g	4.37	42		40	140		
		N-nitrosodiphenylamine	34980-062		2.5	ug/g	4.37	58		40	140		
		4-bromophenyl phenyl ether	34980-062		2.3	ug/g	4.37	53		40	140		
		hexachlorobenzene	34980-062		2.7	ug/g	4.37	62		40	140		
		pentachlorophenol	34980-062		3.4	ug/g	4.37	78		30	130		

Absolute Resource associates

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3546/8270D	MS8375	phenanthrene	34980-062		2.3	ug/g	4.37	54	40	140		
		anthracene	34980-062		2.2	ug/g	4.37	51	40	140		
		carbazole	34980-062		2.6	ug/g	4.37	59	40	140		
		di-n-butylphthalate	34980-062		2.2	ug/g	4.37	51	40	140		
		fluoranthene	34980-062		2.7	ug/g	4.37	61	40	140		
		benzidine	34980-062	<	3.3	ug/g						
		pyrene	34980-062		2.3	ug/g	4.37	53	40	140		
		butyl benzyl phthalate	34980-062		2.2	ug/g	4.37	50	40	140		
		benzo(a)anthracene	34980-062		2.8	ug/g	4.37	63	40	140		
		chrysene	34980-062		2.6	ug/g	4.37	60	40	140		
		3,3'-dichlorobenzidine	34980-062	<	3.3	ug/g						
		bis(2-ethylhexyl)phthalate	34980-062		2.3	ug/g	4.37	52	40	140		
		di-n-octyl phthalate	34980-062		2.1	ug/g	4.37	48	40	140		
		benzo(b)fluoranthene	34980-062		2.5	ug/g	4.37	57	40	140		
		benzo(k)fluoranthene	34980-062		2.9	ug/g	4.37	66	40	140		
		benzo(a)pyrene	34980-062		2.8	ug/g	4.37	64	40	140		
		indeno(1,2,3-cd)pyrene	34980-062		2.8	ug/g	4.37	64	40	140		
		dibenzo(a,h)anthracene	34980-062		2.9	ug/g	4.37	66	40	140		
		benzo(g,h,i)perylene	34980-062		2.6	ug/g	4.37	60	40	140		
		2-fluorophenol SUR	34980-062		49	%			21	100		
		phenol-D5 SUR	34980-062		55	%			10	102		
		2,4,6-tribromophenol SUR	34980-062		96	%			10	123		
		nitrobenzene-D5 SUR	34980-062		44	%			35	114		
		2-fluorobiphenyl SUR	34980-062		49	%			43	116		
		p-terphenyl-D14 SUR	34980-062		69	%			33	141		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW3051A6010C	BLK8415	Silver		<	0.25	ug/g						
		Arsenic		<	0.50	ug/g						
		Barium		<	2.5	ug/g						
		Cadmium		<	0.20	ug/g						
		Chromium		<	2.5	ug/g						
		Lead		<	0.50	ug/g						
		Selenium		<	2.5	ug/g						
SW3051A6010C	CRM8415	Silver			43	ug/g	38		25.1	51.9		
		Arsenic			450	ug/g	400		292	508		
		Barium			22	ug/g	25		0	51.3		
		Cadmium			17	ug/g	15		8.71	22		
		Chromium			12	ug/g	14		2.45	24.7		
		Lead			5200	ug/g	5100		3750	6470		
		Selenium		<	5.3	ug/g	6.6		0	18.4		
SW3051A6010C	CRMD8415	Silver			44	ug/g	38		25.1	51.9	2	35
		Arsenic			430	ug/g	400		292	508	6	35
		Barium			22	ug/g	25		0	51.3	2	35
		Cadmium			14	ug/g	15		8.71	22	17	35
		Chromium			13	ug/g	14		2.45	24.7	14	35
		Lead			5200	ug/g	5100		3750	6470	1	35
		Selenium			5.7	ug/g	6.6		0	18.4	13	35
SW3051A6010C	DUP8415	Silver	34980-062	<	0.55	ug/g						35
		Arsenic	34980-062		3.4	ug/g					27	35
		Barium	34980-062		15	ug/g					20	35
		Cadmium	34980-062	<	0.44	ug/g						35
		Chromium	34980-062		11	ug/g					28	35
		Lead	34980-062		6.0	ug/g					12	35
		Selenium	34980-062	<	5.5	ug/g						35
SW3051A6010C	MS8415	Silver	34980-062		26	ug/g	26	95	75	125		
		Arsenic	34980-062		56	ug/g	53	100	75	125		
		Barium	34980-062		71	ug/g	53	100	75	125		
		Cadmium	34980-062		53	ug/g	53	100	75	125		
		Chromium	34980-062		66	ug/g	53	97	75	125		
		Lead	34980-062		59	ug/g	53	101	75	125		
		Selenium	34980-062		50	ug/g	53	93	75	125		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
SW7470A	BLK8388	Mercury		<	0.0002	mg/L						
SW7470A	LCS8388	Mercury			0.0020	mg/L	0.002	102	80	120		
SW7470A	LCSD8388	Mercury			0.0020	mg/L	0.002	101	80	120	1	20
SW7470A	BLK8417	Mercury		<	0.0002	mg/L						
SW7470A	DUP8417	Mercury	35047-001	<	0.0002	mg/L						20
SW7470A	LCS8417	Mercury			0.0020	mg/L	0.002	98	80	120		
SW7470A	LCSD8417	Mercury			0.0019	mg/L	0.002	96	80	120	2	20
SW7470A	MS8417	Mercury	35047-001		0.0019	mg/L	0.002	97	75	125		
SW7471B	BLK8418	Mercury		<	0.14	ug/g						
SW7471B	CRM8418	Mercury			1.6	ug/g	1.1		0.49	1.76		
SW7471B	CRMD8418	Mercury			1.6	ug/g	1.1		0.49	1.76	1	35
SW7471B	DUP8418	Mercury	34980-043	<	0.16	ug/g						35
SW7471B	MS8418	Mercury	34980-043		0.45	ug/g	0.4	95	75	125		
SW7471B	MS8418	Mercury	35096-001		2.3	ug/g	1.92	108	75	125		
SW7471B	BLK8419	Mercury		<	0.14	ug/g						
SW7471B	CRM8419	Mercury			0.82	ug/g	1.1		0.49	1.76		
SW7471B	CRMD8419	Mercury			0.80	ug/g	1.1		0.49	1.76	3	35

Absolute Resource associates

124 Heritage Avenue #16
Portsmouth, NH 03801
603-436-2001
absoluteresourceassociates.com

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

34980

Company Name: Campbell Environmental Group
Company Address: 173 Gray Rd Falmouth ME
Report To: Rich Campbell
Phone #: 207 253 1990
Invoice to Email: rcampbell@cegenvironmental.com
☐ Hard Copy Invoice Required

Project Name: HCPC/Corea
Project #: 1014-253-06
Project Location: NH MA ME VT NY Other
Protocol: RCRA MCP SDWA NHDES NPDES OTHER
Reporting Limits: QAPP GW-1 S-1 EPA DW Other
Quote # Bob Reid ☐ NH Reimbursement Pricing
PO #

ANALYSIS REQUEST

☐ VOC 8260 ☐ VOC 8260 NHDES ☐ VOC 8260 MADEP
☐ VOC 624 ☐ VOC BTEX ☐ MtBE, only ☐ VOC 8021VT
☐ VPH MADEP ☐ MEGRO ☐ GRO 8015 ☐ 1,4-Dioxane
☐ VOC 524.2 ☐ VOC 524.2 NH List ☐ Gases-List:
☐ TPH ☐ DRC 8015 ☐ MEDRO ☐ EPH MADEP ☐ TPH Fingerprint
☐ 8270PAH ☐ 8270ABN ☐ 625 ☐ EDB
☐ 8082 PCB ☐ 8081 Pesticides ☐ 608 Pest/PCB 5ox
☐ O&G 1664 ☐ Mineral O&G SM5520F
☐ pH ☐ BOD ☐ Conductivity ☐ Turbidity
☐ TSS ☐ TDS ☐ TS ☐ TVS ☐ Alkalinity
☐ RCRA Metals ☐ Priority Pollutant Metals ☐ TAL Metals ☐ Hardness
☐ Total Metals-list:
☐ Dissolved Metals-list:
☐ Ammonia ☐ COD ☐ TKN ☐ TN ☐ TDN ☐ TOC
☐ T-Phosphorus ☐ Phenols ☐ Bacteria P/A ☐ Bacteria MPN
☐ Cyanide ☐ Sulfide ☐ Nitrate + Nitrite ☐ Ortho P
☐ Nitrate ☐ Nitrite ☐ Chloride ☐ Sulfate ☐ Bromide ☐ Fluoride
☐ Corrosivity ☐ Reactive CN ☐ Reactive S- ☐ Ignitibility/FP
☐ TCLP Metals ☐ TCLP VOC ☐ TCLP SVOC ☐ TCLP Pesticide
Subcontract: ☐ Grain Size ☐ Herbicides ☐ Formaldehyde
Grab (G) or Composite (C)

Lab Sample ID (Lab Use Only)	Field ID	# CONTAINERS	Matrix: WATER	SOLID	OTHER	Preservation Method: HCl	HNO_3	H_2SO_4	NaOH	MeOH	Sampling: DATE	TIME	SAMPLER	8082 PCB
34980-01	BM-20-B	1		✓							11/12	11:00	RC	X
-02	BM-14-B	1		✓							11/12	12:45		X
-03	BM-14-C	1		✓							11/12	12:58		X
-04	BM-20-A	1		✓							11/12	10:40		X
-05	BM-20-C	1		✓							11/12	11:16		X
-06	BM-7-A Dup	1		✓							11/13	10:20		X
-07	BM-7-A	1		✓							11/13	10:20		X
-08	BM-5-C	1		✓							11/12	17:18		X
-09	BM-5-B	1		✓							11/12	16:55		X
-10	BM-5-A	1		✓							11/12	16:48		X
-11	BM-3-C	1		✓							11/12	15:00		X

TAT REQUESTED
Priority (24 hr)* ☐
Expedited (48 hr)* ☐
Standard (10 Business Days) ✓
*Date Needed _____

See absoluteresourceassociates.com for sample acceptance policy and current accreditation lists.

SPECIAL INSTRUCTIONS Current EDD xls file needed.

REPORTING INSTRUCTIONS ✓ PDF (e-mail address) dwallace@cegenvironmental.com
☐ HARD COPY REQUIRED ☐ FAX (FAX#)

RECEIVED ON ICE ☒ YES ☐ NO
TEMPERATURE 4.5 °C

CUSTODY RECORD
QSD-01 Revision 10/14/15

Relinquished by Sampler:	Date	Time	Received by:	Date	Time
[signature]	11/16/15	12:00	[signature]	11/16/15	12:00
Relinquished by:	Date	Time	Received by:	Date	Time
			[signature]	11/16/15	15:13
Relinquished by:	Date	Time	Received by Laboratory:	Date	Time
			[signature]	11/16/15	15:13

Absolute Resource associates

124 Heritage Avenue #16
Portsmouth, NH 03801
603-436-2001
absoluteresourceassociates.com

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Company Name: Campbell Environmental Group
Company Address: 173 Gray Rd Falmouth ME 04105
Report To: Danica Wallace
Phone #: 207-253-1990
Invoice to Email: dwallace@cegenvironmental.com
☐ Hard Copy Invoice Required

Project Name: HCPC/Corea
Project #: 1014-253-00
Project Location: NH MA ME VT NY ____ Other
Protocol: RCRA MCP SDWA NHDES NPDES OTHER
Reporting Limits: QAPP GW-1 S-1 EPA DW Other ____
Quote # Brian Pelletier ☐ NH Reimbursement Pricing
PO # ____

ANALYSIS REQUEST

☐ VOC 8260 ☐ VOC 8260 NHDES ☐ VOC 8260 MADEP ☐ VOC 624 ☐ VOC BTEX ☐ MtBE, only ☐ VOC 8021VT ☐ VPH MADEP ☐ MEGRO ☐ GRO 8015 ☐ 1,4-Dioxane ☐ VOC 524.2 ☐ VOC 524.2 NH List ☐ Gases-List: ☐ TPH ☐ DRO 8015 ☐ MEDRO ☐ EPH MADEP ☐ TPH Fingerprint ☐ 8270PAH ☐ 8270ABN ☐ 625 ☐ EDB ☐ 8082 PCB ☐ 8081 Pesticides ☐ 608 Pest/PCB ☐ O&G 1664 ☐ Mineral O&G SM5520F ☐ pH ☐ BOD ☐ Conductivity ☐ Turbidity ☐ TSS ☐ TDS ☐ TS ☐ TVS ☐ Alkalinity ☐ RCRA Metals ☐ Priority Pollutant Metals ☐ TAL Metals ☐ Hardness ☐ Total Metals-list: ☐ Dissolved Metals-list: ☐ Ammonia ☐ COD ☐ TKN ☐ TN ☐ TON ☐ TOC ☐ T-Phosphorus ☐ Phenols ☐ Bacteria P/A ☐ Bacteria MPN ☐ Cyanide ☐ Sulfide ☐ Nitrate + Nitrite ☐ Ortho P ☐ Nitrate ☐ Nitrite ☐ Chloride ☐ Sulfate ☐ Bromide ☐ Fluoride ☐ Corrosivity ☐ Reactive CN ☐ Reactive S- ☐ Ignitibility/FP ☐ TCLP Metals ☐ TCLP VOC ☐ TCLP SVOC ☐ TCLP Pesticide ☐ Subcontract: ☐ Grain Size ☐ Herbicides ☐ Formaldehyde

SOX

Lab Sample ID (Lab Use Only)	Field ID	# CONTAINERS	Matrix: WATER	SOLID	OTHER	Preservation Method: HCl	HNO_3	H_2SO_4	NaOH	MeOH	Sampling: DATE	TIME	SAMPLER	8082 PCB	Grab (G) or Composite (C)
34980-12	BM-3-B	1		X							11/12	14:42	RC	X	
-13	BM-3-A	1		X							11/12	14:30	RC	X	
-14	BM-1-C	1		X							11/12	13:53	RC	X	
-15	BM-1-B	1		X							11/12	13:44	RC	X	
-16	BM-1-A	1		X							11/12	13:23	RC	X	
-17	BM-2	1		X							11/13	11:30	RC	X	
-18	BM-30	1		X							11/13	15:30	RC	X	
-19	BM-31	1		X							11/13	15:40	RC	X	
-20	BM-32	1		X							11/13	15:45	RC	X	
-21	BM-33	1		X							11/13	15:50	RC	X	
-22	BM-34	1		X							11/13	15:55	RC	X	

TAT REQUESTED
Priority (24 hr)* ☐
Expedited (48 hr)* ☐
Standard (10 Business Days) ☒
*Date Needed ____

See absoluteresourceassociates.com for sample acceptance policy and current accreditation lists.

SPECIAL INSTRUCTIONS Current EDD xls file needed

REPORTING INSTRUCTIONS ☒ PDF (e-mail address) dwallace@cegenvironmental.com
☐ HARD COPY REQUIRED ☐ FAX (FAX#) ____

RECEIVED ON ICE ☒ YES ☐ NO
TEMPERATURE 4.5 °C

CUSTODY RECORD
QSD-01 Revision 10/14/15

Relinquished by Sampler:	Date	Time	Received by:	Date	Time
[signature]	11/16/15	12:00	[signature]	11/16/15	12:00
Relinquished by: [signature]	11/16/15	15:15	Received by:	Date	Time
Relinquished by:	Date	Time	Received by Laboratory: [signature]	11/16/15	1513

3 of

Absolute Resource associates

124 Heritage Avenue #16
Portsmouth, NH 03801
603-436-2001
absoluteresourceassociates.com

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Company Name: Campbell Environmental Group
Company Address: 173 Gray Rd, Falmouth, ME 04105
Report To: Donica Wallace
Phone #: 207-253-1990
Invoice to Email: dwallace@cegenvironmental.com
☐ Hard Copy Invoice Required

Project Name: HCPC/Loica
Project #: 1014-253-00
Project Location: NH MA (ME) VT NY ____ Other
Protocol: RCRA MCP SDWA NHDES NPDES OTHER
Reporting Limits: (QAPP) EPA DW GW-1 S-1 Other ____
Quote # Brown Bill ☐ NH Reimbursement Pricing
PO # ____

ANALYSIS REQUEST

☐ VOC 8260 ☐ VOC 8260 NHDES ☐ VOC 8260 MADEP
☐ VOC 624 ☐ VOC BTEX ☐ MtBE, only ☐ VOC 8021VT
☐ VPH MADEP ☐ MEGRO ☐ GRO 8015 ☐ 1,4-Dioxane
☐ VOC 524.2 ☐ VOC 524.2 NH List ☐ Gases-List:
☐ TPH ☐ DRO 8015 ☐ MEDRO ☐ EPH MADEP ☐ TPH Fingerprint
☐ 8270PAH ☐ 8270ABN ☐ 625 ☐ EDB
☐ 8082 PCB ☐ 8081 Pesticides ☐ 608 Pest/PCB SOX
☐ O&G 1664 ☐ Mineral O&G SM5520F
☐ pH ☐ BOD ☐ Conductivity ☐ Turbidity
☐ TSS ☐ TDS ☐ TS ☐ TVS ☐ Alkalinity
☐ RCRA Metals ☐ Priority Pollutant Metals ☐ TAL Metals ☐ Hardness
☐ ~~Total Metals-list:~~ Lead only
☐ Dissolved Metals-list:
☐ Ammonia ☐ COD ☐ TKN ☐ TN ☐ TON ☐ TOC
☐ T-Phosphorus ☐ Phenols ☐ Bacteria P/A ☐ Bacteria MPN
☐ Cyanide ☐ Sulfide ☐ Nitrate + Nitrite ☐ Ortho P
☐ Nitrate ☐ Nitrite ☐ Chloride ☐ Sulfate ☐ Bromide ☐ Fluoride
☐ Corrosivity ☐ Reactive CN ☐ Reactive S- ☐ Ignitibility/FP
☐ TCLP Metals ☐ TCLP VOC ☐ TCLP SVOC ☐ TCLP Pesticide
Subcontract: ☐ Grain Size ☐ Herbicides ☐ Formaldehyde
TCLP Mercury
8151A 2,4-D
8081 Pesticides
Grab (G) or Composite (C)

Lab Sample ID (Lab Use Only)	Field ID	# CONTAINERS	Matrix: WATER	Matrix: SOLID	Matrix: OTHER	Preservation Method: HCl	HNO_3	H_2SO_4	NaOH	MeOH	Sampling: DATE	TIME	SAMPLER	8082 PCB	8081 Pesticides	Lead only	8151A 2,4-D	8081 Pesticides	Grab (G) or Composite (C)
SW20-23	BM-12	1		X							11/13	12:45	RC	X					
-24	BM-3	1		X							11/13	11:45	RC	X					
-25	BM-4	1		X							11/13	11:49	RC	X					
-26	BM-6	1		X							11/13	11:53	RC	X					
-27	BM-85 Carpet	1		X							11/13	13:25	RC	X					
-28	BM-6 Dup	1		X							11/13	11:53	RC	X					
-29	BM-11	1		X							11/13	12:40	RC	X					
-30	BM-10	1		X							11/13	12:30	RC	X					
-31	BM-15	1									11/13	13:45				X			
~~-32~~	~~153-1~~	~~1~~		~~X~~							~~11/13~~	~~15:45~~	~~DW~~						
32 ~~-33~~	SW-1 Dup	2	X								11/13	7:30	DW				X	X	

TAT REQUESTED
Priority (24 hr)* ☐
Expedited (48 hr)* ☐
Standard (10 Business Days) ☒
*Date Needed ____

See absoluteresourceassociates.com for sample acceptance policy and current accreditation lists.

SPECIAL INSTRUCTIONS current EDD w/s file needed

REPORTING INSTRUCTIONS ☒ PDF (e-mail address) dwallace@cegenvironmental.com
☐ HARD COPY REQUIRED ☐ FAX (FAX#) ____

RECEIVED ON ICE ☒ YES ☐ NO
TEMPERATURE 4.5 °C

CUSTODY RECORD
QSD-01 Revision 10/14/15

Relinquished by:	Date	Time	Received by:	Date	Time
Sampler: [signature]	11/16/15	12:00	[signature]	11/16/15	12:00
[signature]	11/16/15	15:15			
			Received by laboratory: [signature]	11/16/15	15:13

4 (pm)

Absolute Resource associates
124 Heritage Avenue #16
Portsmouth, NH 03801
603-436-2001
absoluteresourceassociates.com

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Company Name: Campbell Environmental Group
Company Address: 173 Gray Rd, Falmouth, ME 04105
Report To: Danica Wallace
Phone #: 207-253-1990
Invoice to Email: dwallace@cegenvironmental.com
☐ Hard Copy Invoice Required

Project Name: HCPL/Corea
Project #: 1014-253-00
Project Location: NH MA (ME) VT NY Other
Protocol: RCRA MCP SDWA NHDES NPDES OTHER
Reporting Limits: (QAPP) EPA DW GW-1 S-1 Other
Quote # Brownfield ☐ NH Reimbursement Pricing
PO #

ANALYSIS REQUEST

☐ VOC 8260 ☐ VOC 8260 NHDES ☐ VOC 8260 MADEP
☐ VOC 624 ☐ VOC BTEX ☐ MtBE, only ☐ VOC 8021VT
☐ VPH MADEP ☐ MEGRO ☐ GRO 8015 ☐ 1,4-Dioxane
☐ VOC 524.2 ☐ VOC 524.2 NH List ☐ Gases-List:
☐ TPH ☐ DRO 8015 ☐ MEDRO ☐ EPH MADEP ☐ TPH Fingerprint
☐ 8270PAH ☐ 8270ABN ☐ 625 ☐ EDB
☐ 8082 PCB ☐ 8081 Pesticides ☐ 608 Pest/PCB
☐ O&G 1664 ☐ Mineral O&G SM5520F
☐ pH ☐ BOD ☐ Conductivity ☐ Turbidity
☐ TSS ☐ TDS ☐ TS ☐ TVS ☐ Alkalinity
☐ RCRA Metals ☐ Priority Pollutant Metals ☐ TAL Metals ☐ Hardness
☐ Total Metals-list:
☐ Dissolved Metals-list:
☐ Ammonia ☐ COD ☐ TKN ☐ TN ☐ TON ☐ TOC
☐ T-Phosphorus ☐ Phenols ☐ Bacteria P/A ☐ Bacteria MPN
☐ Cyanide ☐ Sulfide ☐ Nitrate + Nitrite ☐ Ortho P
☐ Nitrate ☐ Nitrite ☐ Chloride ☐ Sulfate ☐ Bromide ☐ Fluoride
☐ Corrosivity ☐ Reactive CN ☐ Reactive S- ☐ Ignitibility/FP
☐ TCLP Metals ☐ TCLP VOC ☐ TCLP SVOC ☐ TCLP Pesticide
Subcontract: ☐ Grain Size ☐ Herbicides ☐ Formaldehyde
Mercury
Grab (G) or Composite (C)

	Lab Sample ID (Lab Use Only)	Field ID	# CONTAINERS	Matrix: WATER	SOLID	OTHER	Preservation Method: HCl	HNO_3	H_2SO_4	NaOH	MeOH	Sampling: DATE	TIME	SAMPLER	8082 PCB	Mercury	Grab (G) or Composite (C)
-33	34980-31	LS-9	1		X							11/12/15	12:15	DW			
-34	-35	LS-14	1		X							11/12/15	12:26	DW			
-35	-36	LS-20	1		X							11/12/15	13:05	DW			
-36	-37	LS-22	1		X							11/12/15	13:20	DW			
-37	-38	LS-22 Dup	1		X							11/12/15	13:20	DW			
-38	-39	LS-29	1		X							11/12/15	16:40	DW			
-39	-40	LS-32	1		X							11/12/15	16:55	DW			
-40	-41	LS-34	1		X							11/12/15	17:00	DW			
-41	-42	Eq Blk Knife	1	X			X					11/13/15	16:15	RC		X	
-42	-43	Eq Blk chisel	1	X								11/13/15	16:20	RC	X		
	-44																

TAT REQUESTED
Priority (24 hr)* ☐
Expedited (48 hr)* ☐
Standard (10 Business Days) ☒
*Date Needed _____

See absoluteresourceassociates.com for sample acceptance policy and current accreditation lists.

SPECIAL INSTRUCTIONS Current EDD xls file needed.

REPORTING INSTRUCTIONS ☒ PDF (e-mail address) dwallace@cegenvironmental.com
☐ HARD COPY REQUIRED ☐ FAX (FAX#)

RECEIVED ON ICE ☒ YES ☐ NO
TEMPERATURE 4.6 °C

CUSTODY RECORD
QSD-01 Revision 10/14/15

Relinquished by:	Date	Time	Received by:	Date	Time
Sampler: [signature]	11/16/15	12:00	[signature]	11/16/15	12:00
[signature]	11/16/15	15:15			
			Received by Laboratory: [signature]	11/16/15	15:13

Absolute Resource associates

124 Heritage Avenue #16
Portsmouth, NH 03801
603-436-2001
absoluteresourceassociates.com

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Company Name: Campbell Environmental Group
Company Address: 173 Gray Rd Falmouth
Report To: Danica Wallace
Phone #: 207-253-1990
Invoice to Email: dwallace@cegenvironmental.com
☐ Hard Copy Invoice Required

Project Name: HCPL/Corea
Project #: 1014-253-00
Project Location: NH MA (ME) VT NY Other
Protocol: RCRA SDWA NPDES MCP NHDES OTHER
Reporting Limits: (QAPP) GW-1 S-1 EPA DW Other
Quote # Brian Pelletier ☐ NH Reimbursement Pricing
PO #

ANALYSIS REQUEST

☐ VOC 8260 ☐ VOC 8260 NHDES ☐ VOC 8260 MADEP
☐ VOC 624 ☐ VOC BTEX ☐ MtBE, only ☐ VOC 8021VT
☐ VPH MADEP ☐ MEGRO ☐ GRO 8015 ☐ 1,4-Dioxane
☐ VOC 524.2 ☐ VOC 524.2 NH List ☐ Gases-List:
☐ TPH ☐ DRO 8015 ☐ MEDRO ☐ EPH MADEP ☐ TPH Fingerprint
☐ 8270PAH ☐ 8270ABN ☐ 625 ☐ EDB
☐ 8082 PCB ☐ 8081 Pesticides ☐ 608 Pest/PCB
☐ O&G 1664 ☐ Mineral O&G SM5520F
☐ pH ☐ BOD ☐ Conductivity ☐ Turbidity
☐ TSS ☐ TDS ☐ TS ☐ TVS ☐ Alkalinity
☐ RCRA Metals ☐ Priority Pollutant Metals ☐ TAL Metals ☐ Hardness
☐ Total Metals-list:
☐ Dissolved Metals-list:
☐ Ammonia ☐ COD ☐ TKN ☐ TN ☐ TON ☐ TOC
☐ T-Phosphorus ☐ Phenols ☐ Bacteria P/A ☐ Bacteria MPN
☐ Cyanide ☐ Sulfide ☐ Nitrate + Nitrite ☐ Ortho P
☐ Nitrate ☐ Nitrite ☐ Chloride ☐ Sulfate ☐ Bromide ☐ Fluoride
☐ Corrosivity ☐ Reactive CN ☐ Reactive S- ☐ Ignitibility/FP
☐ TCLP Metals ☐ TCLP VOC ☐ TCLP SVOC ☐ TCLP Pesticide
Subcontract: ☐ Grain Size ☐ Herbicides ☐ Formaldehyde

	Lab Sample ID (Lab Use Only)	Field ID	# CONTAINERS	Matrix: WATER	SOLID	OTHER	Preservation Method: HCl	HNO_3	H_2SO_4	NaOH	MeOH	Sampling: DATE	TIME	SAMPLER	Mercury	TCLP Mercury	Grab (G) or Composite (C)
-43	3480-45	153-1 Carpet Dup	1		X							11/13	15:45	DW	X		
-44	-46	153-1 Carpet	1		X							11/13	15:45	DW	X		
-45	-47	153-3 Carpet	1		X							11/13	16:15	DW	X		
-46	-48	153-2 Carpet	1		X							11/13	16:00	DW	X		
-47	-49	153-2 Wipe	1			X						11/13	16:00	DW	X		
-48	-50	153-3 Wipe	1			X						11/13	16:15	DW	X		
-49	-51	153-1 Wipe	1			X						11/13	15:45	DW	X		
-50	-52	153-1 Wipe Dup	1			X						11/13	15:45	DW	X		
-51	-53	85 Carpet Wipe	1			X						11/13	13:25	DW	X		
-52	-54	153-1 TCLP	1		X							11/13	15:45	DW		X	
	-55																

TAT REQUESTED
Priority (24 hr)* ☐
Expedited (48 hr)* ☐
Standard (10 Business Days) ☒
*Date Needed _____

See absoluteresourceassociates.com for sample acceptance policy and current accreditation lists.

SPECIAL INSTRUCTIONS current EAD xls file needed.

REPORTING INSTRUCTIONS ☒ PDF (e-mail address) dwallace@cegenvironmental.com
☐ ~~HARD COPY REQUIRED~~ ☐ FAX (FAX#) _____

RECEIVED ON ICE ☒ YES ☐ NO
TEMPERATURE 4.5 °C

CUSTODY RECORD
QSD-01 Revision 10/14/15

Relinquished by:	Date	Time	Received by:	Date	Time
Sampler	11/16/15	12:00		11/16/15	12:00
	11/16/15	15:15			
			Received by Laboratory:	11/16/15	1512

Absolute Resource associates
124 Heritage Avenue #16
Portsmouth, NH 03801
603-436-2001
absoluteresourceassociates.com

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

34980

Company Name: Campbell Environmental Group
Company Address: 173 Gray Rd, Falmouth, ME 04105
Report To: Danica Wallace
Phone #: 207-253-1990
Invoice to Email: dwallace@cegenvironmental.com
☐ Hard Copy Invoice Required

Project Name: HCPC/Corea
Project #: 1014-253-00
Project Location: NH MA (ME, circled) VT NY ___ Other
Protocol: RCRA MCP SDWA NHDES NPDES OTHER
Reporting Limits: (QAPP, circled) GW-1 S-1 EPA DW Other___
Quote # Brookfield ☐ NH Reimbursement Pricing
PO # ___

ANALYSIS REQUEST

Analysis columns:
1. ☒ VOC 8260 ☐ VOC 8260 NHDES ☐ VOC 8260 MADEP
2. ☐ VOC 624 ☐ VOC BTEX ☐ MBE, only ☐ VOC 8021VT
3. ☐ VPH MADEP ☐ MEGRO ☐ GRO 8015 ☐ 1,4-Dioxane
4. ☐ VOC 524.2 ☐ VOC 524.2 NH List ☐ Gases-List:
5. ☐ TPH ☐ DRO 8015 ☐ MEDRO ☐ EPH MADEP ☐ TPH Fingerprint
6. ☐ 8270PAH ☒ 8270ABN ☐ 625 ☐ EDB
7. ☒ 8082 PCB ☐ 8081 Pesticides ☐ 608 Pest/PCB
8. ☐ O&G 1664 ☐ Mineral O&G SM5520F
9. ☐ pH ☐ BOD ☐ Conductivity ☐ Turbidity
10. ☐ TSS ☐ TDS ☐ TS ☐ TVS ☐ Alkalinity
11. ☒ RCRA Metals ☐ Priority Pollutant Metals ☐ TAL Metals ☐ Hardness
12. ☐ Total Metals-list:
13. ☐ Dissolved Metals-list:
14. ☐ Ammonia ☐ COD ☐ TKN ☐ TN ☐ TON ☐ TOC
15. ☐ T-Phosphorus ☐ Phenols ☐ Bacteria P/A ☐ Bacteria MPN
16. ☐ Cyanide ☐ Sulfide ☐ Nitrate + Nitrite ☐ Ortho P
17. ☐ Nitrate ☐ Nitrite ☐ Chloride ☐ Sulfate ☐ Bromide ☐ Fluoride
18. ☐ Corrosivity ☐ Reactive CN ☐ Reactive S- ☐ Ignitibility/FP
19. ☐ TCLP Metals ☐ TCLP VOC ☐ TCLP SVOC ☐ TCLP Pesticide
20. Subcontract: ☐ Grain Size ☐ Herbicides ☐ Formaldehyde
21. 8151A 2,4-D
22. (blank)
23. (blank)
24. Grab (G) or Composite (C)

Lab Sample ID (Lab Use Only)	Field ID	# Containers	Water	Solid	Other	HCl	HNO_3	H_2SO_4	NaOH	MeOH	Date	Time	Sampler	VOC 8260	8270	8082 PCB	RCRA Metals	8151A 2,4-D
-53 34980-56	SS-1	2		X							11/13/15	11:00	DW			X		X
-54 -57	SS-2	2		X							11/13/15	11:15	DW			X		X
-55 -58	SS-3	2		X							11/13/15	11:02	DW	X			X	
-56 -59	SS-4	2		X							11/13/15	15:00	DW	X	X			
-57 -60	SS-5	2		X							11/13/15	11:13	DW			X		X
-58 -61	SS-5 Dup	2		X							11/13/15	9:30	DW			X		X
-59 -62	SS-6	2		X							11/13/15	9:42	DW			X		X
-60 -63	TP-1	3		X							11/13/15	11:30	DW	X	X		X	
-61 -64	TP-1 Dup	3		X							11/13/15	11:30	DW	X	X		X	
-62 -65	TP-2	3		X							11/13/15	11:45	DW	X	X		X	
-63 -66	SW-1	3	X								11/13/15	7:30	DW			X		X
64																		
* 65																		

TAT REQUESTED
Priority (24 hr)* ☐
Expedited (48 hr)* ☐
Standard (10 Business Days) ☒
*Date Needed ___

See absoluteresourceassociates.com for sample acceptance policy and current accreditation lists.

SPECIAL INSTRUCTIONS: current EDD xls file needed.
* Trip blank, 34980-64 AD * BM-14A Solid PCB SOX 34980-65 * AD (sampled 11/12/15 12:32)

REPORTING INSTRUCTIONS ☒ PDF (e-mail address) dwallace@cegenvironmental.com
☐ HARD COPY REQUIRED ☐ FAX (FAX#)___

RECEIVED ON ICE ☒ YES ☐ NO
TEMPERATURE 4.5 °C

CUSTODY RECORD

	Date	Time		Date	Time
Relinquished by Sampler: [signature]	11/16/15	12:00	Received by: [signature]	11/16/15	12:00
Relinquished by: [signature]	11/16/15	15:15	Received by:		
Relinquished by:			Received by Laboratory: [signature]	11/16/15	15:13

QSD-01 Revision 10/14/15

PHOENIX
Environmental Laboratories, Inc.

Wednesday, November 25, 2015

Attn: Mr Aaron DeWeer
Absolute Resource Associates
124 Heritage Avenue
Portsmouth, NH 03801

Project ID: 34980
Sample ID#s: BK25604 - BK25610

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #MA-CT-007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
VT Lab Registration #VT11301

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Telephone (860) 645-1102 Fax (860) 645-0823

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

November 25, 2015

FOR: Attn: Mr Aaron DeWeer
Absolute Resource Associates
124 Heritage Avenue
Portsmouth, NH 03801

Sample Information		Custody Information		Date	Time
Matrix:	WATER	Collected by:		11/13/15	7:30
Location Code:	RESOURCE	Received by:	LK	11/19/15	10:24
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	34980				

Laboratory Data

SDG ID: GBK25604
Phoenix ID: BK25604

Project ID: 34980
Client ID: 32

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for Herbicide	Completed				11/20/15	/D	SW8151A
Chlorinated Herbicides							
2,4,5-T	ND	1.3	ug/L	10	11/24/15	BB	SW8151A
2,4,5-TP (Silvex)	ND	1.3	ug/L	10	11/24/15	BB	SW8151A
2,4-D	ND	1.3	ug/L	10	11/24/15	BB	SW8151A
2,4-DB	ND	10	ug/L	10	11/24/15	BB	SW8151A
Dalapon	ND	1.3	ug/L	10	11/24/15	BB	SW8151A
Dicamba	ND	2.5	ug/L	10	11/24/15	BB	SW8151A
Dichloroprop	ND	1.3	ug/L	10	11/24/15	BB	SW8151A
Dinoseb	ND	2.5	ug/L	10	11/24/15	BB	SW8151A
QA/QC Surrogates							
% DCAA	78		%	10	11/24/15	BB	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quanitation) ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director
November 25, 2015
Reviewed and Released by: Bobbi Aloisa, Vice President

PHOENIX

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587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

November 25, 2015

FOR: Attn: Mr Aaron DeWeer
Absolute Resource Associates
124 Heritage Avenue
Portsmouth, NH 03801

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		11/13/15	11:00
Location Code:	RESOURCE	Received by:	LK	11/19/15	10:24
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	34980				

Laboratory Data

SDG ID: GBK25604
Phoenix ID: BK25605

Project ID: 34980
Client ID: 53

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	91		%		11/20/15	W	SW846-%Solid
Soil Extraction for Herbicide	Completed				11/19/15	Q/D	SW8151A
Chlorinated Herbicides							
2,4,5-T	ND	45	ug/Kg	10	11/20/15	BB	SW8151A
2,4,5-TP (Silvex)	ND	45	ug/Kg	10	11/20/15	BB	SW8151A
2,4-D	ND	45	ug/Kg	10	11/20/15	BB	SW8151A
2,4-DB	ND	450	ug/Kg	10	11/20/15	BB	SW8151A
Dalapon	ND	45	ug/Kg	10	11/20/15	BB	SW8151A
Dicamba	ND	91	ug/Kg	10	11/20/15	BB	SW8151A
Dichloroprop	ND	45	ug/Kg	10	11/20/15	BB	SW8151A
Dinoseb	ND	91	ug/Kg	10	11/20/15	BB	SW8151A
QA/QC Surrogates							
% DCAA	68		%	10	11/20/15	BB	30 - 150 %

Project ID: 34980
Client ID: 53

Phoenix I.D.: BK25605

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quanitation) ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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November 25, 2015
Reviewed and Released by: Bobbi Aloisa, Vice President

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587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac
NY # 11301

Analysis Report

November 25, 2015

FOR: Attn: Mr Aaron DeWeer
Absolute Resource Associates
124 Heritage Avenue
Portsmouth, NH 03801

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		11/13/15	11:15
Location Code:	RESOURCE	Received by:	LK	11/19/15	10:24
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	34980				

Laboratory Data

SDG ID: GBK25604
Phoenix ID: BK25606

Project ID: 34980
Client ID: 54

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	88		%		11/20/15	W	SW846-%Solid
Soil Extraction for Herbicide	Completed				11/19/15	Q/D	SW8151A
Chlorinated Herbicides							
2,4,5-T	ND	47	ug/Kg	10	11/20/15	BB	SW8151A
2,4,5-TP (Silvex)	ND	47	ug/Kg	10	11/20/15	BB	SW8151A
2,4-D	ND	47	ug/Kg	10	11/20/15	BB	SW8151A
2,4-DB	ND	470	ug/Kg	10	11/20/15	BB	SW8151A
Dalapon	ND	47	ug/Kg	10	11/20/15	BB	SW8151A
Dicamba	ND	94	ug/Kg	10	11/20/15	BB	SW8151A
Dichloroprop	ND	47	ug/Kg	10	11/20/15	BB	SW8151A
Dinoseb	ND	94	ug/Kg	10	11/20/15	BB	SW8151A
QA/QC Surrogates							
% DCAA	58		%	10	11/20/15	BB	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quanitation) ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

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November 25, 2015
Reviewed and Released by: Bobbi Aloisa, Vice President

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Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

November 25, 2015

FOR: Attn: Mr Aaron DeWeer
Absolute Resource Associates
124 Heritage Avenue
Portsmouth, NH 03801

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		11/13/15	11:13
Location Code:	RESOURCE	Received by:	LK	11/19/15	10:24
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	34980				

Laboratory Data

SDG ID: GBK25604
Phoenix ID: BK25607

Project ID: 34980
Client ID: 57

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	94		%		11/20/15	W	SW846-%Solid
Soil Extraction for Herbicide	Completed				11/19/15	Q/D	SW8151A
Chlorinated Herbicides							
2,4,5-T	ND	44	ug/Kg	10	11/20/15	BB	SW8151A
2,4,5-TP (Silvex)	ND	44	ug/Kg	10	11/20/15	BB	SW8151A
2,4-D	ND	44	ug/Kg	10	11/20/15	BB	SW8151A
2,4-DB	ND	440	ug/Kg	10	11/20/15	BB	SW8151A
Dalapon	ND	44	ug/Kg	10	11/20/15	BB	SW8151A
Dicamba	ND	88	ug/Kg	10	11/20/15	BB	SW8151A
Dichloroprop	ND	44	ug/Kg	10	11/20/15	BB	SW8151A
Dinoseb	ND	88	ug/Kg	10	11/20/15	BB	SW8151A
QA/QC Surrogates							
% DCAA	71		%	10	11/20/15	BB	30 - 150 %

Project ID: 34980
Client ID: 57

Phoenix I.D.: BK25607

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quanitation) ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director
November 25, 2015
Reviewed and Released by: Bobbi Aloisa, Vice President

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587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac
NY # 11301

Analysis Report

November 25, 2015

FOR: Attn: Mr Aaron DeWeer
Absolute Resource Associates
124 Heritage Avenue
Portsmouth, NH 03801

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		11/13/15	9:30
Location Code:	RESOURCE	Received by:	LK	11/19/15	10:24
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	34980				

Laboratory Data

SDG ID: GBK25604
Phoenix ID: BK25608

Project ID: 34980
Client ID: 58

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	93		%		11/20/15	W	SW846-%Solid
Soil Extraction for Herbicide	Completed				11/19/15	Q/D	SW8151A
Chlorinated Herbicides							
2,4,5-T	ND	45	ug/Kg	10	11/20/15	BB	SW8151A
2,4,5-TP (Silvex)	ND	45	ug/Kg	10	11/20/15	BB	SW8151A
2,4-D	ND	45	ug/Kg	10	11/20/15	BB	SW8151A
2,4-DB	ND	450	ug/Kg	10	11/20/15	BB	SW8151A
Dalapon	ND	45	ug/Kg	10	11/20/15	BB	SW8151A
Dicamba	ND	89	ug/Kg	10	11/20/15	BB	SW8151A
Dichloroprop	ND	45	ug/Kg	10	11/20/15	BB	SW8151A
Dinoseb	ND	89	ug/Kg	10	11/20/15	BB	SW8151A
QA/QC Surrogates							
% DCAA	66		%	10	11/20/15	BB	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quanitation) ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director
November 25, 2015
Reviewed and Released by: Bobbi Aloisa, Vice President

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

November 25, 2015

FOR: Attn: Mr Aaron DeWeer
Absolute Resource Associates
124 Heritage Avenue
Portsmouth, NH 03801

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		11/13/15	9:42
Location Code:	RESOURCE	Received by:	LK	11/19/15	10:24
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	34980				

Laboratory Data

SDG ID: GBK25604
Phoenix ID: BK25609

Project ID: 34980
Client ID: 59

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	87		%		11/20/15	W	SW846-%Solid
Soil Extraction for Herbicide	Completed				11/19/15	Q/D	SW8151A
Chlorinated Herbicides							
2,4,5-T	ND	47	ug/Kg	10	11/20/15	BB	SW8151A
2,4,5-TP (Silvex)	ND	47	ug/Kg	10	11/20/15	BB	SW8151A
2,4-D	ND	47	ug/Kg	10	11/20/15	BB	SW8151A
2,4-DB	ND	470	ug/Kg	10	11/20/15	BB	SW8151A
Dalapon	ND	47	ug/Kg	10	11/20/15	BB	SW8151A
Dicamba	ND	95	ug/Kg	10	11/20/15	BB	SW8151A
Dichloroprop	ND	47	ug/Kg	10	11/20/15	BB	SW8151A
Dinoseb	ND	95	ug/Kg	10	11/20/15	BB	SW8151A
QA/QC Surrogates							
% DCAA	65		%	10	11/20/15	BB	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quanitation) ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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November 25, 2015
Reviewed and Released by: Bobbi Aloisa, Vice President

PHOENIX

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587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

November 25, 2015

FOR: Attn: Mr Aaron DeWeer
Absolute Resource Associates
124 Heritage Avenue
Portsmouth, NH 03801

Sample Information		Custody Information		Date	Time
Matrix:	WATER	Collected by:		11/13/15	7:30
Location Code:	RESOURCE	Received by:	LK	11/19/15	10:24
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	34980				

Laboratory Data

SDG ID: GBK25604
Phoenix ID: BK25610

Project ID: 34980
Client ID: 63

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for Herbicide	Completed				11/20/15	/D	SW8151A
Chlorinated Herbicides							
2,4,5-T	ND	1.3	ug/L	10	11/22/15	BB	SW8151A
2,4,5-TP (Silvex)	ND	1.3	ug/L	10	11/22/15	BB	SW8151A
2,4-D	ND	1.3	ug/L	10	11/22/15	BB	SW8151A
2,4-DB	ND	10	ug/L	10	11/22/15	BB	SW8151A
Dalapon	ND	1.3	ug/L	10	11/22/15	BB	SW8151A
Dicamba	ND	2.5	ug/L	10	11/22/15	BB	SW8151A
Dichloroprop	ND	1.3	ug/L	10	11/22/15	BB	SW8151A
Dinoseb	ND	2.5	ug/L	10	11/22/15	BB	SW8151A
QA/QC Surrogates							
% DCAA	74		%	10	11/22/15	BB	30 - 150 %

Project ID: 34980
Client ID: 63

Phoenix I.D.: BK25610

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quanitation) ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director
November 25, 2015
Reviewed and Released by: Bobbi Aloisa, Vice President

PHOENIX

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587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

QA/QC Report

November 25, 2015

QA/QC Data

SDG I.D.: GBK25604

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 327331 (ug/Kg), QC Sample No: BK24934 2X (BK25605, BK25606, BK25607, BK25608, BK25609)											
Chlorinated Herbicides - Solid											
2,4,5-T	ND	8.3	40	41	2.5	34	38	11.1	40 - 140	30	
2,4,5-TP (Silvex)	ND	8.3	49	58	16.8	51	52	1.9	40 - 140	30	
2,4-D	ND	8.3	41	57	32.7	40	46	14.0	40 - 140	30	r
2,4-DB	ND	67	117	86	30.5	107	77	32.6	40 - 140	30	r
Dalapon	ND	8.3	54	54	0.0	105	98	6.9	40 - 140	30	
Dicamba	ND	17	90	96	6.5	90	89	1.1	40 - 140	30	
Dichloroprop	ND	8.3	56	63	11.8	60	60	0.0	40 - 140	30	
Dinoseb	ND	17	129	87	38.9	125	82	41.5	40 - 140	30	r
% DCAA (Surrogate Rec)	96	%	86	89	3.4	83	77	7.5	30 - 150	30	
QA/QC Batch 327401 (ug/L), QC Sample No: BK25604 10X (BK25604, BK25610)											
Chlorinated Herbicides - Water											
2,4,5-T	ND	1.3	79	93	16.3				40 - 140	20	
2,4,5-TP (Silvex)	ND	1.3	63	77	20.0				40 - 140	20	
2,4-D	ND	1.3	119	86	32.2				40 - 140	20	r
2,4-DB	ND	10	52	64	20.7				40 - 140	20	r
Dalapon	ND	1.3	42	68	47.3				40 - 140	20	r
Dicamba	ND	2.5	77	92	17.8				40 - 140	20	
Dichloroprop	ND	1.3	64	111	53.7				40 - 140	20	r
Dinoseb	ND	2.5	65	76	15.6				40 - 140	20	
% DCAA (Surrogate Rec)	77	%	61	70	13.7				30 - 150	20	

r = This parameter is outside laboratory RPD specified recovery limits.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference

Phyllis Shiller, Laboratory Director
November 25, 2015

Sample Criteria Exceedences Report

GBK25604 - RESOURCE

Criteria: None

State: NH

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units

*** No Data to Display ***

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

Pheonix Labs

PAGE 1 OF 1

Absolute Resource associates

124 Heritage Avenue #16
Portsmouth, NH 03801
603-436-2001
absoluteresourceassociates.com

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

4°C WC ID

Company Name: See Above

Company Address:

Report To: Aaron Dewees

Phone #:

Invoice to Email: Same

☐ Hard Copy Invoice Required

Project Name:

Project #: 34980

Project Location: NH MA ME VT NY ____ Other

Protocol: RCRA SDWA NPDES MCP NHDES OTHER

Reporting Limits: QAPP GW-1 S-1 EPA DW Other____

Quote #____ ☐ NH Reimbursement Pricing

PO # 34980

ANALYSIS REQUEST

☐ VOC 8260 ☐ VOC 8260 NHDES ☐ VOC 8260 MADEP
☐ VOC 624 ☐ VOC BTEX ☐ MtBE, only ☐ VOC 8021VT
☐ VPH MADEP ☐ MEGRO ☐ GRO 8015 ☐ 1,4-Dioxane
☐ VOC 524.2 ☐ VOC 524.2 NH List ☐ Gasses-List:
☐ TPH ☐ DRO 8015 ☐ MEDRO ☐ EPH MADEP ☐ TPH Fingerprint
☐ 8270PAH ☐ 8270ABN ☐ 625 ☐ EDB
☐ 8082 PCB ☐ 8081 Pesticides ☐ 608 Pest/PCB
☐ O&G 1664 ☐ Mineral O&G SM5520F
☐ pH ☐ BOD ☐ Conductivity ☐ Turbidity
☐ TSS ☐ TDS ☐ TS ☐ TVS ☐ Alkalinity
☐ RCRA Metals ☐ Priority Pollutant Metals ☐ TAL Metals ☐ Hardness
☐ Total Metals-list:
☐ Dissolved Metals-list:
☐ Ammonia ☐ COD ☐ TKN ☐ TN ☐ TON ☐ TOC
☐ T-Phosphorus ☐ Phenols ☐ Bacteria P/A ☐ Bacteria MPN
☐ Cyanide ☐ Sulfide ☐ Nitrate + Nitrite ☐ Ortho P
☐ Nitrate ☐ Nitrite ☐ Chloride ☐ Sulfate ☐ Bromide ☐ Fluoride
☐ Corrosivity ☐ Reactive CN ☐ Reactive S- ☐ Ignitibility/FP
☐ TCLP Metals ☐ TCLP VOC ☐ TCLP SVOC ☐ TCLP Pesticide
Subcontract: ☐ Grain Size ☐ Herbicides ☐ Formaldehyde
Grab (G) or Composite (C)

Lab Sample ID (Lab Use Only)	Field ID	# CONTAINERS	Matrix: WATER	Matrix: SOLID	Matrix: OTHER	Preservation Method: HCl	HNO_3	H_2SO_4	NaOH	MeOH	Sampling: DATE	TIME	SAMPLER	Subcontract: Herbicides
25604	34980.32	1	X								11/13/15	730		X
25605	53			X							11/13/15	1100		
25606	54			X							11/13/15	1115		
25607	57			X							11/13/15	1113		
25608	58			X							11/13/15	930		
25609	59			X							11/13/15	942		
25610	63		X								11/13/15	730		

TAT REQUESTED

Priority (24 hr)* ☐
Expedited (48 hr)* ☐
Standard (10 Business Days) ☒
*Date Needed _____

See absoluteresourceassociates.com for sample acceptance policy and current accreditation lists.

SPECIAL INSTRUCTIONS

REPORTING INSTRUCTIONS ☒ PDF (e-mail address) aarond + cathyd

☐ HARD COPY REQUIRED ☐ FAX (FAX#)_____

RECEIVED ON ICE ☒ YES ☐ NO

TEMPERATURE _____°C

CUSTODY RECORD

QSD-01 Revision 10/14/15

Relinquished by Sampler:	Date	Time	Received by:	Date	Time
Relinquished by: [signature]	11/18/15	1410	Received by: UPS	11/18/15	1410
Relinquished by: UPS	11/19/15	10:24	Received by Laboratory: TFCLIENT	Date	Time

Katahdin
ANALYTICAL SERVICES

Cert. No. E87604

December 7, 2015

Ms. Danica Wallace
Campbell Environmental Group
173 Gray Road
Falmouth,ME 04105

RE: Katahdin Lab Number: SI9252
Project ID: HCPC/Corea
Project Manager: Ms. Diane Paul
Sample Receipt Date(s): November 16, 2015

Dear Ms. Wallace:

Please find enclosed the following information:

* Report of Analysis (Analytical and/or Field)
* Quality Control Data Summary
* Chain of Custody (COC)
* Login Report

A copy of the Chain of Custody is included in the paginated report. The original COC is attached as an addendum to this report.

Should you have any questions or comments concerning this Report of Analysis, please do not hesitate to contact the project manager listed above. The results contained in this report relate only to the submitted samples. This cover letter is an integral part of the ROA.

We certify that the test results provided in this report meet all the requirements of the NELAC standards unless otherwise noted in an attached technical narrative or in the Report of Analysis.

We appreciate your continued use of our laboratory and look forward to working with you in the future. The following signature indicates technical review and acceptance of the data.

Please go to http://www.katahdinlab.com/cert.html for copies of Katahdin Analytical Services Inc. current certificates and analyte lists.

Sincerely,
KATAHDIN ANALYTICAL SERVICES

Deborah J. Nadeau
Authorized Signature

12/07/2015
Date

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Danica Wallace
Campbell Environmental Group
173 Gray Road
Falmouth,ME 04105

Lab Sample ID: SI9252-1
Report Date: 07-DEC-15
Client PO:
Project: HCPC/Corea
SDG: SI9252

Sample Description	Matrix	Date Sampled	Date Received
SS-1	SL	13-NOV-15 11:00:00	16-NOV-15

Parameter	Result	Adj PQL	Adj MDL	Anal. Method	QC Batch	Analysis Date	Prep. Method	Prep. Date	Analyst	Footnotes
TOC In Soil	1900 ug/gdrywt	520	110	SW846 9060A Mod.	WG175264	01-DEC-15 15:07:37	N/A	N/A	ZF	
Total Solids	96. %	1		SM2540G	WG174480	19-NOV-15 14:51:23	SM2540G	18-NOV-15	AP	

600 Technology Way
P.O. Box 540, Scarborough, ME 04070

http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Danica Wallace
Campbell Environmental Group
173 Gray Road
Falmouth,ME 04105

Lab Sample ID: SI9252-2
Report Date: 07-DEC-15
Client PO:
Project: HCPC/Corea
SDG: SI9252

Sample Description	Matrix	Date Sampled	Date Received
SS-2	SL	13-NOV-15 11:15:00	16-NOV-15

Parameter	Result	Adj PQL	Adj MDL	Anal. Method	QC Batch	Analysis Date	Prep. Method	Prep. Date	Analyst	Footnotes
TOC In Soil	1800 ug/gdrywt	450	95.	SW846 9060A Mod.	WG175264	01-DEC-15 15:41:21	N/A	N/A	ZF	
Total Solids	94. %	1		SM2540G	WG174480	19-NOV-15 14:51:33	SM2540G	18-NOV-15	AP	

600 Technology Way
P.O. Box 540, Scarborough, ME 04070

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ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Danica Wallace
Campbell Environmental Group
173 Gray Road
Falmouth,ME 04105

Lab Sample ID: SI9252-3
Report Date: 07-DEC-15
Client PO:
Project: HCPC/Corea
SDG: SI9252

Sample Description	Matrix	Date Sampled	Date Received
SS-5	SL	13-NOV-15 09:30:00	16-NOV-15

Parameter	Result	Adj PQL	Adj MDL	Anal. Method	QC Batch	Analysis Date	Prep. Method	Prep. Date	Analyst	Footnotes
TOC In Soil	3300 ug/gdrywt	470	99.	SW846 9060A Mod.	WG175335	02-DEC-15 15:19:36	N/A	N/A	ZF	
Total Solids	90. %	1		SM2540G	WG174480	19-NOV-15 14:51:44	SM2540G	18-NOV-15	AP	

600 Technology Way
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Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Danica Wallace
Campbell Environmental Group
173 Gray Road
Falmouth,ME 04105

Lab Sample ID: SI9252-4
Report Date: 07-DEC-15
Client PO:
Project: HCPC/Corea
SDG: SI9252

Sample Description	Matrix	Date Sampled	Date Received
SS-2 DUP	SL	13-NOV-15 11:15:00	16-NOV-15

Parameter	Result	Adj PQL	Adj MDL	Anal. Method	QC Batch	Analysis Date	Prep. Method	Prep. Date	Analyst	Footnotes
TOC In Soil	2400 ug/gdrywt	590	120	SW846 9060A Mod.	WG175335	02-DEC-15 13:57:09	N/A	N/A	ZF	
Total Solids	85. %	1		SM2540G	WG174480	19-NOV-15 14:51:52	SM2540G	18-NOV-15	AP	

600 Technology Way
P.O. Box 540, Scarborough, ME 04070

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sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Accredited in accordance with nelac
Cert No E87604

Report of Analytical Results

Client: Danica Wallace
Campbell Environmental Group
173 Gray Road
Falmouth,ME 04105

Lab Sample ID: SI9252-5
Report Date: 07-DEC-15
Client PO:
Project: HCPC/Corea
SDG: SI9252

Sample Description	Matrix	Date Sampled	Date Received
SS-6	SL	13-NOV-15 09:42:00	16-NOV-15

Parameter	Result	Adj PQL	Adj MDL	Anal. Method	QC Batch	Analysis Date	Prep. Method	Prep. Date	Analyst	Footnotes
TOC In Soil	14000 ug/gdrywt	660	140	SW846 9060A Mod.	WG175335	02-DEC-15 14:19:14	N/A	N/A	ZF	
Total Solids	88. %	1		SM2540G	WG174480	19-NOV-15 14:52:00	SM2540G	18-NOV-15	AP	

600 Technology Way
P.O. Box 540, Scarborough, ME 04070

http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

ACCREDITED IN ACCORDANCE WITH nelac
Cert No E87604

Quality Control Report

Blank Sample Summary Report

TOC in Soil

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL
MBLANK	WG175264	SW846 9060A Mod.	01-DEC-15	N/A	J 99. ug/gdrywt	400 ug/gdrywt
MBLANK	WG175335	SW846 9060A Mod.	02-DEC-15	N/A	U 300 ug/gdrywt	400 ug/gdrywt

Total Solids

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL
MBLANK	WG174480	SM2540	19-NOV-15	18-NOV-15	U 1 %	1 %

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Quality Control Report

Laboratory Control Sample Summary Report

TOC In Soil

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG175264-2	LCS	WG175264	01-DEC-15	N/A	ug/gdrywt	400000.000	400000	101	80-120	
WG175335-2	LCS	WG175335	02-DEC-15	N/A	ug/gdrywt	400000.000	400000	100	80-120	
WG175335-3	LCSD	WG175335	02-DEC-15	N/A	ug/gdrywt	400000.000	410000	102	80-120	2

Total Solids

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG174480-2	LCS	WG174480	19-NOV-15	18-NOV-15	%	90	90.	100	90-110	

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ANALYTICAL SERVICES

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Cert No E87604

Quality Control Report

Duplicate Sample Summary Report

TOC In Soil

Duplicate Sample ID	Original Sample ID	QC Batch	Analysis Date	Result Units	Sample Result	Duplicate Result	RPD(%)	RPD Limit
WG175264-3	SI9252-1	WG175264	01-DEC-15	ug/gdrywt	1900	2000	5	30

Total Solids

Duplicate Sample ID	Original Sample ID	QC Batch	Analysis Date	Result Units	Sample Result	Duplicate Result	RPD(%)	RPD Limit
WG174480-3	SI9252-2	WG174480	19-NOV-15	%	94.	92.	2	20

Katahdin Analytical Services, LLC.

Sample Receipt Condition Report

Client:	CEG	KAS PM:	DJP	Sampled By:	Client
Project:		KIMS Entry By:	AP	Delivered By:	KAS
KAS Work Order#:	S19252	KIMS Review By:	DJP	Received By:	AP
SDG #:	Cooler: 1 of 1			Date/Time Rec.:	11/16/15 1600

Receipt Criteria	Y	N	EX*	NA	Comments and/or Resolution
1. Custody seals present / intact?		✓			
2. Chain of Custody present in cooler?	✓				
3. Chain of Custody signed by client?	✓				
4. Chain of Custody matches samples?	✓				
5. Temperature Blanks present? If not, take temperature of any sample w/ IR gun.		✓			Temp (°C): 15.1
Samples received at <6 °C w/o freezing?		✓			Note: Not required for metals (except Hg) analysis.
Ice packs or ice present?		✓			The lack of ice or ice packs (i.e. no attempt to begin cooling process) or insufficient ice may not meet certain regulatory requirements and may invalidate certain data.
If yes, was there sufficient ice to meet temperature requirements?				✓	
If temp. out, has the cooling process begun (i.e. ice or packs present) and sample collection times <6hrs., but samples are not yet cool?		✓			Note: No cooling process required for metals (except Hg) analysis.
6. Volatiles:					
Aqueous: No bubble larger than a pea?				✓	
Soil/Sediment:					
Received in airtight container?				✓	
Received in methanol?				✓	
Methanol covering soil?				✓	
D.I. Water - Received within 48 hour HT?				✓	
Air: Refer to KAS COC for canister/flow controller requirements.	√ if air included				
7. Trip Blank present in cooler?				✓	
8. Proper sample containers and volume?	✓				
9. Samples within hold time upon receipt?	✓				
10. Aqueous samples properly preserved? Metals, COD, NH3, TKN, O/G, phenol, TPO4, N+N, TOC, DRO, TPH – pH <2				✓	
Sulfide - >9				✓	
Cyanide – pH >12				✓	

* Log-In Notes to Exceptions: document any problems with samples or discrepancies or pH adjustments.

QA-048 – Revision 5 – 05/01/2015

Katahdin ANALYTICAL SERVICES
340 County Road No. 5
P.O. Box 720
Westbrook, ME 04092
Tel: (207) 874-2400
Fax: (207) 775-4029

CHAIN of CUSTODY

PLEASE BEAR DOWN AND PRINT LEGIBLY IN PEN

Client: Campbell Environmental Group
Contact: D. Wallace
Phone #: (207) 253-1990
Fax #: ( )
Address: 173 Gray Rd
City: Falmouth
State: ME
Zip Code: 04105
Purchase Order #:
Proj. Name / No.: HCPC/Corea
Katahdin Quote #:
Bill (if different than above):
Address:
Sampler (Print / Sign): Danica Wallace / [signature]
Copies To:

LAB USE ONLY
WORK ORDER #: S19252
KATAHDIN PROJECT NUMBER:

REMARKS:

SHIPPING INFO: ❒ FED EX ❒ UPS ❒ CLIENT
AIRBILL NO:
TEMP°C ❒ TEMP BLANK ❒ INTACT ❒ NOT INTACT

ANALYSIS AND CONTAINER TYPE PRESERVATIVES

*	Sample Description	Date / Time coll'd	Matrix	No. of Cntrs.	Organic Carbon	Filt. ❒Y ❒N	Filt. ❒Y ❒N	Filt. ❒Y ❒N	Filt. ❒Y ❒N	Filt. ❒Y ❒N	Filt. ❒Y ❒N	Filt. ❒Y ❒N	Filt. ❒Y ❒N	Filt. ❒Y ❒N	Filt. ❒Y ❒N
	~~SW-1~~	~~11/13 / 7:30~~	~~W~~	~~1~~	~~X~~										
	SS-1	11/13 / 11:00	S	1	X										
	SS-2	11/13 / 11:15	S	1	X										
	SS-5	11/13 / ~~11:13~~ 9:30	S	1	X										
	SS-2 Dup	11/13 / 11:15	S	1	X										
	SS-6	11/13 / 9:42	S	1	X										
		/													
		/													
		/													
		/													
		/													
		/													
		/													
		/													
		/													
		/													

COMMENTS

Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)
[signature]	11/16 3:42	[signature]			
Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)

THE TERMS AND CONDITIONS ON THE REVERSE SIDE HEREOF SHALL GOVERN SERVICES, EXCEPT WHEN A SIGNED CONTRACTUAL AGREEMENT EXISTS.

Katahdin ANALYTICAL SERVICES

Katahdin Analytical Services

Login Chain of Custody Report (lno1)

Nov. 16, 2015
04:25 PM

Login Number: SI9252

Account: CAMPBE001 NoWeb
Campbell Environmental Group

Project:

Primary Report Address:
Danica Wallace
Campbell Environmental Group
173 Gray Road

Falmouth,ME 04105
dwallace@cegenvironmental.com

Primary Invoice Address:
Accounts Payable
Campbell Environmental Group
173 Gray Road

Falmouth,ME 04105

Report CC Addresses:
Invoice CC Addresses:

Quote/Incoming:

Login Information:

ANALYSIS INSTRUCTIONS	:	MEGAD, merge results for EDD
CHECK NO.	:	
CLIENT PO#	:	
CLIENT PROJECT MANAGE	:	
CONTRACT	:	
COOLER TEMPERATURE	:	15.1
DELIVERY SERVICES	:	KAS
EDD FORMAT	:	KAS064QC-XLS
LOGIN INITIALS	:	AP
PM	:	DJP
PROJECT NAME	:	HCPC/Corea
QC LEVEL	:	II+
REGULATORY LIST	:	
REPORT INSTRUCTIONS	:	Email PDF, EDD and Invoice to Kevin Hardwick, khardwick@cegenvironmental.com, also send a CD
SDG ID	:	
SDG STATUS	:	

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SI9252-1	SS-1	13-NOV-15 11:00	16-NOV-15			24-NOV-15	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Solid	S	SW9060M-TOC	11-DEC-15	4oz Glass		
Solid	S	TS-ME	13-DEC-15			

SI9252-2	SS-2	13-NOV-15 11:15	16-NOV-15			24-NOV-15	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Solid	S	SW9060M-TOC	11-DEC-15	4oz Glass		
Solid	S	TS-ME	13-DEC-15			

SI9252-3	SS-5	13-NOV-15 09:30	16-NOV-15			24-NOV-15	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Solid	S	SW9060M-TOC	11-DEC-15	4oz Glass		
Solid	S	TS-ME	13-DEC-15			

SI9252-4	SS-2 DUP	13-NOV-15 11:15	16-NOV-15			24-NOV-15	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Solid	S	SW9060M-TOC	11-DEC-15	4oz Glass		
Solid	S	TS-ME	13-DEC-15			

SI9252-5	SS-6	13-NOV-15 09:42	16-NOV-15			24-NOV-15	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Solid	S	SW9060M-TOC	11-DEC-15	4oz Glass		
Solid	S	TS-ME	13-DEC-15			

Total Samples: *5* ***Total Analyses:*** *10*

Pacific Agricultural Laboratory
12505 N.W. Cornell Rd. • Portland, OR 97229-5651 • Ph 503.626.7943 • Fx 503.641.0644

Campbell Environmental Group
173 Gray Road
Falmouth, ME 04105

Report Number: P152539
Report Date: December 01, 2015
Client Project ID: 1014-253-00

Analytical Report

Client Sample ID: SW-1
Matrix: water

PAL Sample ID: P152539-01
Sample Date: 11/13/15

Extraction Date	Analysis Date	Analyte	Amount Detected	Limit of Quantitation	Notes
Method: Modified EPA 8270D (GC-MS/MS)					
11/17/15	11/23/15	Simazine	Not Detected	0.060 ug/L	
Surrogate Recovery: 74 %					
Surrogate Recovery Range: 29-130					
(DCBP used as Surrogate)					
Method: Modified EPA 8321B (LC-MS/MS)					
11/17/15	11/28/15	Bromacil	Not Detected	0.060 ug/L	

Client Sample ID: SW-1 Dup
Matrix: water

PAL Sample ID: P152539-02
Sample Date: 11/13/15

Extraction Date	Analysis Date	Analyte	Amount Detected	Limit of Quantitation	Notes
Method: Modified EPA 8270D (GC-MS/MS)					
11/17/15	11/24/15	Simazine	Not Detected	0.060 ug/L	
Surrogate Recovery: 76 %					
Surrogate Recovery Range: 29-130					
(DCBP used as Surrogate)					
Method: Modified EPA 8321B (LC-MS/MS)					
11/17/15	11/28/15	Bromacil	Not Detected	0.060 ug/L	

Rick Jordan, Laboratory Manager

Pacific Agricultural Laboratory
12505 N.W. Cornell Rd. • Portland, OR 97229-5651 • Ph 503.626.7943 • Fx 503.641.0644

Campbell Environmental Group
173 Gray Road
Falmouth, ME 04105

Report Number: P152539
Report Date: December 01, 2015
Client Project ID: 1014-253-00

Analytical Report

Client Sample ID: SS-1
Matrix: soil

PAL Sample ID: P152539-03
Sample Date: 11/13/15

Extraction Date	Analysis Date	Analyte	Amount Detected	Limit of Quantitation	Notes
Method: Modified EPA 8270D (GC-MS/MS)					
11/19/15	11/24/15	Simazine	Not Detected	0.013 mg/kg	
Surrogate Recovery: 98 %					
Surrogate Recovery Range: 54-120					
(DCBP used as Surrogate)					
Method: Modified EPA 8321B (LC-MS/MS)					
11/19/15	11/28/15	Bromacil	Not Detected	0.0067 mg/kg	

Client Sample ID: SS-2
Matrix: soil

PAL Sample ID: P152539-04
Sample Date: 11/13/15

Extraction Date	Analysis Date	Analyte	Amount Detected	Limit of Quantitation	Notes
Method: Modified EPA 8270D (GC-MS/MS)					
11/19/15	11/24/15	Simazine	Not Detected	0.013 mg/kg	
Surrogate Recovery: 92 %					
Surrogate Recovery Range: 54-120					
(DCBP used as Surrogate)					
Method: Modified EPA 8321B (LC-MS/MS)					
11/19/15	11/28/15	Bromacil	0.0076 mg/kg	0.0067 mg/kg	

Rick Jordan, Laboratory Manager

Pacific Agricultural Laboratory
12505 N.W. Cornell Rd. • Portland, OR 97229-5651 • Ph 503.626.7943 • Fx 503.641.0644

Campbell Environmental Group
173 Gray Road
Falmouth, ME 04105

Report Number: P152539
Report Date: December 01, 2015
Client Project ID: 1014-253-00

Analytical Report

Client Sample ID: SS-5
Matrix: soil

PAL Sample ID: P152539-05
Sample Date: 11/13/15

Extraction Date	Analysis Date	Analyte	Amount Detected	Limit of Quantitation	Notes
Method: Modified EPA 8270D (GC-MS/MS)					
11/19/15	11/24/15	Simazine	Not Detected	0.013 mg/kg	
Surrogate Recovery: 108 %					
Surrogate Recovery Range: 54-120					
(DCBP used as Surrogate)					
Method: Modified EPA 8321B (LC-MS/MS)					
11/19/15	11/28/15	Bromacil	Not Detected	0.0067 mg/kg	

Client Sample ID: SS-5 Dup
Matrix: soil

PAL Sample ID: P152539-06
Sample Date: 11/13/15

Extraction Date	Analysis Date	Analyte	Amount Detected	Limit of Quantitation	Notes
Method: Modified EPA 8270D (GC-MS/MS)					
11/19/15	11/24/15	Simazine	Not Detected	0.013 mg/kg	
Surrogate Recovery: 107 %					
Surrogate Recovery Range: 54-120					
(DCBP used as Surrogate)					
Method: Modified EPA 8321B (LC-MS/MS)					
11/19/15	11/28/15	Bromacil	Not Detected	0.0067 mg/kg	

Rick Jordan, Laboratory Manager

Pacific Agricultural Laboratory
12505 N.W. Cornell Rd. • Portland, OR 97229-5651 • Ph 503.626.7943 • Fx 503.641.0644

Campbell Environmental Group
173 Gray Road
Falmouth, ME 04105

Report Number: P152539
Report Date: December 01, 2015
Client Project ID: 1014-253-00

Analytical Report

Client Sample ID: SS-6
Matrix: soil

PAL Sample ID: P152539-07
Sample Date: 11/13/15

Extraction Date	Analysis Date	Analyte	Amount Detected	Limit of Quantitation	Notes
Method: Modified EPA 8270D (GC-MS/MS)					
11/19/15	11/24/15	Simazine	Not Detected	0.013 mg/kg	
Surrogate Recovery: 110 %					
Surrogate Recovery Range: 54-120					
(DCBP used as Surrogate)					
Method: Modified EPA 8321B (LC-MS/MS)					
11/19/15	11/28/15	Bromacil	Not Detected	0.0067 mg/kg	

Rick Jordan, Laboratory Manager

Pacific Agricultural Laboratory
12505 N.W. Cornell Rd. • Portland, OR 97229-5651 • Ph 503.626.7943 • Fx 503.641.0644

Campbell Environmental Group
173 Gray Road
Falmouth, ME 04105

Report Number: P152539
Report Date: December 01, 2015
Client Project ID: 1014-253-00

Quality Assurance

Method Blank Data **Matrix:** water

Extraction Date	Analysis Date	Batch QC Sample #	Analyte	% Recovery	Expected % Recovery	Notes
11/17/15	11/28/15	5111705-BLK1	Bromacil	Not Detected	< 0.060 ug/L	
11/17/15	11/24/15	5111705-BLK1	Simazine	Not Detected	< 0.060 ug/L	

Method Blank Data **Matrix:** soil

Extraction Date	Analysis Date	Batch QC Sample #	Analyte	% Recovery	Expected % Recovery	Notes
11/19/15	11/28/15	5111904-BLK1	Bromacil	Not Detected	< 0.0067 mg/kg	
11/19/15	11/24/15	5111904-BLK1	Simazine	Not Detected	< 0.013 mg/kg	

Blank Spike Data **Matrix:** water

Extraction Date	Analysis Date	Batch QC Sample #	Analyte	% Recovery	Expected % Recovery	Notes
11/17/15	11/28/15	5111705-BS1	Bromacil	103	60-140	
11/17/15	11/28/15	5111705-BSD1	Bromacil	96	60-140	
11/17/15	11/23/15	5111705-BS1	Simazine	136	40-156	
11/17/15	11/23/15	5111705-BSD1	Simazine	137	40-156	

Matrix Spike Data **Matrix:** soil

Extraction Date	Analysis Date	Batch QC Sample #	Analyte	% Recovery	Expected % Recovery	Notes
11/19/15	11/28/15	5111904-MS1	Bromacil	94	29-165	
11/19/15	11/28/15	5111904-MSD1	Bromacil	115	29-165	
11/19/15	11/24/15	5111904-MS1	Simazine	128	33-199	
11/19/15	11/24/15	5111904-MSD1	Simazine	129	33-199	

Rick Jordan, Laboratory Manager

ANALYTICAL REPORT

Lab Number:	L1529995
Client:	Campbell Environmental Group 173 Gray Road Falmouth, ME 04105
ATTN:	Rich Campbell
Phone:	(207) 253-1990
Project Name:	HCPC COREA
Project Number:	1014-253-00
Report Date:	11/25/15

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), ME (MA00030), PA (68-02089), VA (460194), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), USFWS (Permit #LE2069641), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: HCPC COREA
Project Number: 1014-253-00

Lab Number: L1529995
Report Date: 11/25/15

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1529995-01	85 AIR	AIR MEDIA	COREA, ME	11/13/15 14:13	11/16/15
L1529995-02	153-1-AIR	AIR MEDIA	COREA, ME	11/13/15 16:33	11/16/15
L1529995-03	153-2-AIR	AIR MEDIA	COREA, ME	11/13/15 17:02	11/16/15
L1529995-04	153-3-AIR	AIR MEDIA	COREA, ME	11/13/15 17:25	11/16/15

Project Name: HCPC COREA
Project Number: 1014-253-00

Lab Number: L1529995
Report Date: 11/25/15

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: HCPC COREA
Project Number: 1014-253-00

Lab Number: L1529995
Report Date: 11/25/15

Case Narrative (continued)

Mercury in Air

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Christopher J. Anderson

Title: Technical Director/Representative

Date: 11/25/15

METALS

Project Name:	HCPC COREA	**Lab Number:**	L1529995
Project Number:	1014-253-00	**Report Date:**	11/25/15

SAMPLE RESULTS

Lab ID:	L1529995-01	Date Collected:	11/13/15 14:13
Client ID:	85 AIR	Date Received:	11/16/15
Sample Location:	COREA, ME	Field Prep:	Not Specified
Matrix:	Air Media		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Mercury in Air - Mansfield Lab											
Mercury, Total	ND		ug/m3	5.00	--	1	11/23/15 11:55	11/23/15 18:41	114,6009(M)	114,6009(M)	LC

Project Name:	HCPC COREA	**Lab Number:**	L1529995
Project Number:	1014-253-00	**Report Date:**	11/25/15

SAMPLE RESULTS

Lab ID:	L1529995-02	Date Collected:	11/13/15 16:33
Client ID:	153-1-AIR	Date Received:	11/16/15
Sample Location:	COREA, ME	Field Prep:	Not Specified
Matrix:	Air Media		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Mercury in Air - Mansfield Lab											
Mercury, Total	ND		ug/m3	5.00	--	1	11/23/15 11:55	11/23/15 18:51	114,6009(M)	114,6009(M)	LC

Project Name:	HCPC COREA	**Lab Number:**	L1529995
Project Number:	1014-253-00	**Report Date:**	11/25/15

SAMPLE RESULTS

Lab ID:	L1529995-03	Date Collected:	11/13/15 17:02
Client ID:	153-2-AIR	Date Received:	11/16/15
Sample Location:	COREA, ME	Field Prep:	Not Specified
Matrix:	Air Media		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Mercury in Air - Mansfield Lab											
Mercury, Total	ND		ug/m3	3.33	--	1	11/23/15 11:55	11/23/15 18:53	114,6009(M)	114,6009(M)	LC

Project Name:	HCPC COREA	**Lab Number:**	L1529995
Project Number:	1014-253-00	**Report Date:**	11/25/15

SAMPLE RESULTS

Lab ID:	L1529995-04	Date Collected:	11/13/15 17:25
Client ID:	153-3-AIR	Date Received:	11/16/15
Sample Location:	COREA, ME	Field Prep:	Not Specified
Matrix:	Air Media		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Mercury in Air - Mansfield Lab											
Mercury, Total	ND		ug/m3	2.50	--	1	11/23/15 11:55	11/23/15 18:56	114,6009(M)	114,6009(M)	LC

Project Name: HCPC COREA
Project Number: 1014-253-00

Lab Number: L1529995
Report Date: 11/25/15

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Mercury in Air - Mansfield Lab for sample(s): 01-04 Batch: WG843532-1										
Mercury, Total	ND		ug/m3	0.010	--	1	11/23/15 11:55	11/23/15 18:31	114,6009(M)	LC

Prep Information

Digestion Method: 114,6009(M)

Lab Control Sample Analysis
Batch Quality Control

Project Name: HCPC COREA
Project Number: 1014-253-00

Lab Number: L1529995
Report Date: 11/25/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Mercury in Air - Mansfield Lab Associated sample(s): 01-04 Batch: WG843532-2 WG843532-3 SRM Lot Number: HPHGAF								
Mercury, Total	101		98		90-110	3		

Project Name: HCPC COREA
Project Number: 1014-253-00

Lab Number: L1529995
Report Date: 11/25/15

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information	Custody Seal
Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1529995-01A	Sorbent Tube (Disposable)	A	N/A	2.5	Y	Absent	A2-HG-6009(30)
L1529995-02A	Sorbent Tube (Disposable)	A	N/A	2.5	Y	Absent	A2-HG-6009(30)
L1529995-03A	Sorbent Tube (Disposable)	A	N/A	2.5	Y	Absent	A2-HG-6009(30)
L1529995-04A	Sorbent Tube (Disposable)	A	N/A	2.5	Y	Absent	A2-HG-6009(30)

*Values in parentheses indicate holding time in days

Project Name:	HCPC COREA	**Lab Number:**	L1529995
Project Number:	1014-253-00	**Report Date:**	11/25/15

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

Report Format: Data Usability Report

Project Name: HCPC COREA **Lab Number:** L1529995

Project Number: 1014-253-00 **Report Date:** 11/25/15

Data Qualifiers

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

Project Name: HCPC COREA **Lab Number:** L1529995
Project Number: 1014-253-00 **Report Date:** 11/25/15

REFERENCES

114 Analysis of Mercury in Air with a Modified NIOSH 6009 Method, U.S. EPA Environmental Response Team Standard Operating Procedure, SOP 1827, Revision 2, May 13, 1999.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 8260C: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene; Iodomethane (methyl iodide) (soil); Methyl methacrylate (soil); Azobenzene.
EPA 8270D: Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 625: 4-Chloroaniline, 4-Methylphenol.
SM4500: Soil: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
EPA 8270D: Biphenyl.
EPA 2540D: TSS
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water
EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7**: Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water
EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;
EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;
EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F,**
EPA 353.2: Nitrate-N**, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

Serial_No:11251508:54

AIR ANALYSIS - SORBENT MEDIA
CHAIN OF CUSTODY

Page 1 of 1

Date Rec'd in Lab 11/16/15

ALPHA Job # L1529995

Westborough, MA TEL: 508-898-9220 FAX: 508-822-3288
Mansfield, MA TEL: 508-822-9300 508-822-3288

Client Information

Client: Campbell Environmental
Address: Group
173 Gray Rd. Falmouth
Phone: ME 04105 2072531...
Fax:
Email: rcampbell@ceg environmental.com

Project Information

Project Name: HCPC Corea
Project Location: Corea, ME
Project #: 1014-253-00
(Use Project name as Project #) ☐
Project Manager: R. Campbell
ALPHA Quote #:

Turn-Around Time

Standard ☑ Due Date:
Rush (only if pre approved) ☐ Time:

Report Information - Data Deliverables

☐ FAX
☐ ADEx
Criteria Checker:
Other Formats:
☑ EMAIL
☐ Add'l Deliverables

Report to: (if different than Project Manager)

Billing Information

☑ Same as Client Info
PO # HCPC Corea

Regulatory Requirements/Report Limits

State/Fed	Program	Criteria

These samples have been previously analyzed by Alpha ☐

Other Project Specific Requirements/ Comments/Detection Limits

For PCBs, selection is REQUIRED:
☐ Congeners
☐ Homologs
☐ Aroclors (Low Vol only)

NOTE: For metals, please specify elements of interest and media type.
☐ PM-10
☐ TSP
☐ MCE

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Start Time	End Time	Flow Rate (L/min)	Total Volume (L)	Sample Matrix*	Sampler's Initials	Media ID# (1)	TO-13A	PCBs (High Vol)	PCBs (Low Vol)	TO-11A	Hg via NIOSH 6009 Mod.	Metals	TO-17		Sample Comments (i.e. PID)
29995.01	BS Air	11/13	13:30	14:13	[illegible]	2L	Air	RC						✓				
02	153-1-AiR	11/13	15:50	1633	[illegible]	2L	"	↓						✓				
03	153-2-AiR	11/13	16:05	1707	[illegible]	3L	"	↓						✓				
04	153-3 AiR	11/13	16:20	1725		4L	"	↓						✓				

* SAMPLE MATRIX CODES	AA = Ambient Air (Indoor/Outdoor) SV = Soil Vapor/Landfill Gas/SVE Other = Please Specify	(1) Required for PUF cartridges, PM-10 and TSP filters and TO-17 sorbent tubes.	Media Type	P	P	P	D	T	F	T	

Media Code
D = DNPH Cartridge
F = Filter
P = PUF Cartridge
T = Sorbent Tube
O = Other

Relinquished By:	Date/Time	Received By:	Date/Time
Rick Campbell	11/16/15 3:30	[signature]	11/16/15 1530
J. [signature]	11/16/15 2015	[signature]	11/16/15 2015
[signature]	11/17/15 0400	Kim [signature]	11/17/15 0400

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 101-13 (rev 01-OCT-2013)