SITE INVESTIGATION REPORT
FOR
CASTLE CONSTRUCTION SITE
WILMINGTON, WILL COUNTY, ILLINOIS

Prepared for

U.S. ENVIRONMENTAL PROTECTION AGENCY
Region V
Emergency Response Branch
77 West Jackson Boulevard
Chicago, IL 60604-3507

Prepared by

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LIST OF ABBREVIATIONS AND ACRONYMS

%	Percent
°C	Degree Celsius
µg/kg	Microgram per kilogram
µg/L	Microgram per liter
API	American Petroleum Institute
bgs	Below ground surface
bss	Below sediment surface
Castle Construction	Castle Construction, Inc.
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CLP	Contract Laboratory Program
DO	Dissolved oxygen
ft	Feet
FWS	U.S. Fish and Wildlife Service
GIS	Geographic Information Systems
gpm	Gallon per minute
GPS	Global positioning system
HRS	Hazard Ranking System
IDPH	Illinois Department of Health
IEPA	Illinois Environmental Protection Agency
IDNR	Illinois Department of Natural Resources
ISGS	Illinois State Geological Survey
KRSP	Kankakee River State Park
MCL	Maximum Contaminant Level
MCLG	Maximum Contaminant Level Goal
mg/L	Milligram per liter
mg/kg	Milligram per kilogram
NFRAP	No Further Remedial Action Planned
NPL	National Priorities List
ORP	Oxidation-reduction potential

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LIST OF ABBREVIATIONS AND ACRONYMS (CONTINUED)

PA	Preliminary Assessment
PCB	Polychlorinated biphenyl
PID	Photoionization detector
PPE	Probable point of entry
SAM	Site Assessment Manager
SAP	Sampling and Analysis Plan
SCDM	Superfund Chemical Data Matrix
SDWIS	Safe Drinking Water Information System
SI	Site Investigation
SR	State Route
START	Superfund Technical Assessment and Response Team
SVOC	Semivolatile organic compound
TAL	Target Analyte List
TCL	Target Compound List
TDD	Technical Direction Document
TDL	Target distance limit
USGS	U.S. Geological Survey
VOC	Volatile organic compound
WESTON	Weston Solutions, Inc.

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1. INTRODUCTION

The U.S. Environmental Protection Agency tasked the Weston Solutions, Inc. (WESTON®), Superfund Technical Assessment and Response Team (START) to perform a Site Investigation (SI) at the Castle Construction site in Wilmington, Will County, Illinois (the Site; **Figure 1-1**). Specifically, under Technical Direction Document (TDD) No. S05-0008-1305-009, the EPA requested that WESTON (1) characterize the impact of the Site to the groundwater, soil, and surface water pathways by defining chemical contaminants in residential groundwater, soil, and sediment; (2) summarize the impact of the Site on the groundwater, soil, surface water, and air pathways; and (3) provide information necessary to determine if the Site qualifies for possible inclusion on the National Priorities List (NPL) or should have a status of No Further Remedial Action Planned (NFRAP).

From July 23 through 25, 2013, WESTON conducted the SI under the direction of the EPA Site Assessment Manager (SAM), Mr. David Brauner. All data collection activities performed by WESTON were conducted in accordance with WESTON's approved sampling and analysis plan (SAP) dated June 24, 2013.

The following sections of this SI report discuss the Site background (Section 2), SI activities (Section 3), sample analytical results (Section 4), and pathways (Section 5), and provide a summary of the SI (Section 6), followed by a list of references used to prepare this report (Section 7). Figures and tables are provided after Section 7. **Appendix A** provides photographic documentation of Site conditions and SI activities. **Appendix B** provides a copy of the Site logbook notes and well sampling logs. **Appendix C** provides laboratory analytical results and data validation reports.

2. SITE BACKGROUND

This section discusses the Site description, Site history, and Site geology and hydrogeology.

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2.1 SITE DESCRIPTION

The Site address is 19841 West Illinois State Route (SR) 102, Wilmington, Will County, Illinois. The Site's geographical coordinates are 41° 14' 32.65"' North latitude and 88° 5' 15.84" West longitude. The trapezoidal Site occupies approximately 30 acres. **Figure 2-1** shows the Site features.

According to the Will County Geographic Information Systems (GIS) Department, three parcels are associated with the Site having permanent index numbers (PIN) 08-25-21-100-024, 08-25-21-100-025, and 08-25-21-100-026 (Will County GIS Department 2012). Parcel 08-25-21-100-024 contains a pond, residential dwelling, and shed. Parcel 08-25-21-100-025 contains five structures, including sheds or barns potentially associated with the Castle Construction, Inc. (Castle Construction), business, and a plot of trees. Parcel 08-25-21-100-026 contains a residential dwelling and an agricultural plot. On January 21, 2013, WESTON viewed the Site from the public right-of-way and observed two addresses associated with the Site: 19841 and 19951 West Illinois SR 102.

The Site is bordered to the north by West Illinois SR 102, with a mix of residential and agricultural properties beyond; to the east by the Kankakee River State Park (KRSP), with a mix of residential and agricultural properties beyond; to the south by agricultural properties, with the Kankakee River beyond; and to the west by a mix of residential and agricultural properties. The closest perennial stream is Rayns Creek, located 500 feet (ft) southeast of the Site. The Kankakee River is located approximately 1,500 ft south of the Site.

2.2 SITE HISTORY

According to a National Comprehensive Report on Homer Castle, Castle Construction was established in 1964 as JR Castle Construction, Inc. (National Comprehensive Report 2012). Castle Construction is a private company categorized under renovation, remodeling, and repairs for industrial buildings (Manta Media, Inc. 2012). The Illinois Secretary of State website reports that JR Castle Construction, Inc. was incorporated on March 16, 1994 (Illinois Secretary of State 2013). According to the Google Earth historical aerial photographs, in 1993, the Site was undeveloped land, with no improvements. In 1998, a residential dwelling and two additional structures,

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potentially barns or sheds, appear to have been built on the Site. In 2002, a second residential dwelling and three additional structures appear to have been built on the Site. Finally, in 2005, a pond appears to have been built on the Site (Google 2013). Homer Castle died in May 2011 (National Comprehensive Report 2012).

In February 2013, WESTON performed a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Preliminary Assessment (PA) of the Site to determine its current and potential impact on surrounding human populations, area groundwater, and nearby surface water bodies. The PA was initiated by a request from a petition submitted under the authority of CERCLA Section 105(d) that requested EPA conduct a PA at the Site. According to the petition, people of the City of Wilmington, Illinois; the unincorporated communities of Ritchie and Resthaven, Illinois; and surrounding areas are threatened by the impacts of alleged illegal dumping by C. L. Hale that may have occurred at the Castle Construction Site from the 1960s to the 1990s. According to the petition, C.L. Hale owned an illegal hazardous materials dump site (hereafter referred to as C.L. Hale Septic site) located at 34135 Evergreen Street in Wilmington, Will County, Illinois. The C.L. Hale Septic site is located approximately 2.25 miles northwest of the Castle Construction Site. During the 1970s, open dumping by local industries occurred at the C. L. Hale Septic site, where a variety of wastes (such as household garbage; septic wastes; and waste oils, greases, and solvents) were disposed of illegally. Styrene, a material used to produce plastics, represented the largest waste stream disposed of at the C.L. Hale Septic site (Illinois Environmental Protection Agency [IEPA] 2000). The Hale site was investigated by and addressed under an Illinois state clean-up program. The petition states that the petitioner believes that water in the area has been impacted by dumping waste at the Castle Construction Site and that the dumping also may have caused cancer, infertility, lymphoma, breast cancer, and other illnesses. Although the claims stated in the petition have never been substantiated, including whether or not there is a connection between the Hale and Castle sites, the findings of the PA suggested that further investigation was necessary.

2.3 SITE GEOLOGY AND HYDROGEOLOGY

According to the Illinois State Geological Survey (ISGS), three wells have been installed at the Site since 1998. **Figure 2-1** shows the well locations. The current operational use of these wells

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is unknown. Well logs provided by the ISGS indicate the information summarized below (ISGS 2008).

- American Petroleum Institute (API) Well No. 121973793700, located on parcel 08-25-21-100-025, was installed in January 1998 to a depth of 25 ft below ground surface (bgs). Sand and gravel were encountered from 0 to 25 ft bgs. The static water level in the well was 4 ft bgs.
- API Well No. 121973844100, located on parcel 08-25-21-100-026, was installed in November 1999 to a depth of 25 ft bgs. Glacial drift (comprised of sand and gravel) was encountered from 0 to 25 ft bgs. The static water level in the well was 9 ft bgs.
- API Well No. 121974227800, located on parcel 08-25-21-100-024, was installed in October 2006 to depth of 23 ft bgs. Soil was encountered from 0 to 1 ft bgs, and glacial drift (comprised of sand and gravel) was encountered from 1 to 23 ft bgs. The static water level in the well was 3 ft bgs.

The ISGS well logs suggest a glacial drift formation consisting of sand and gravel at the Site to a depth of at least 25 ft bgs. The aquifer is suspected to follow the topographic gradient of the Site and flow southeast.

ISGS well logs for nearby off-site residential wells indicate the presence of limestone bedrock at depths of up to 10 ft bgs. The well log for API Well No. 121972985200, located 0.4 mile northeast of the Site, indicates the presence of limestone from 10 to 21 ft bgs, shale from 21 to 96 ft bgs, a second layer of limestone from 96 to 140 ft bgs, a second layer of shale from 140 to 234 ft bgs, Galena Limestone from 234 to 590 ft bgs, and St. Peter Sandstone from 590 to 625 ft bgs (ISGS 2008).

3. SITE INVESTIGATION ACTIVITIES

As discussed below, WESTON START conducted a site reconnaissance and sampling activities at the Site from July 23 through 25, 2013. All sampling activities were conducted in accordance with WESTON START's approved SAP dated June 24, 2013. **Appendix A** provides photographic documentation of Site conditions and SI activities.

3.1 SITE RECONNAISSANCE

The site reconnaissance included the Site, Rayns Creek, and the Kankakee River. EPA and

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WESTON START walked along portions of Rayns Creek from West Illinois SR 102 to the Kankakee River. The creek generally was less than 1 ft deep, with occasional pools more than 3 ft deep. The streambed generally consisted of coarse materials ranging from coarse sand to large cobbles and boulders, although clays, silts, and organic matter occasionally were observed in depositional areas. Rayns Creek contained flowing water throughout the entire reach from West Illinois SR 102 to the Kankakee River.

According to the property owner, a historical pig farm associated with the Castle Construction Site was located on a parcel north of West Illinois SR 102.

3.2 SAMPLING ACTIVITIES

WESTON START collected groundwater samples from three wells located within the Site boundary; soil samples from six on-site locations and one off-site background location; and sediment samples from six locations in Rayns Creek and three locations in the Kankakee River. All sampling locations were recorded using a global positioning system (GPS) instrument after collection. **Figure 3-1** shows the groundwater, soil, and sediment sampling locations. **Table 3-1** summarizes information for each sample collected. All sampling information was recorded in the Site logbook, including sampling location, sampling date, sample description, and sampling time. **Appendix B** provides a copy of the Site logbook notes and well sampling logs.

In accordance with the approved site-specific health and safety plan, sampling activities were conducted in Level D personal protective equipment. Fresh sampling gloves were donned before sampling activities began at each new sampling location to avoid cross-contamination of collected samples. All non-dedicated equipment that contacted the samples was decontaminated between sampling at each new location. All generated waste products, including expendable personal protective equipment and spent sampling supplies, were placed into trash bags and properly disposed of off-site in accordance with appropriate local, state, and federal regulations. The following sections summarize groundwater, soil, and sediment sampling activities and discuss sample packaging, storage, shipment, and analysis.

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3.2.1 Groundwater Sampling

Four groundwater samples (three investigative and one duplicate) were collected from three on-site groundwater wells. All groundwater samples were collected from an outside spigot. The well locations are shown on Figure 3-1. Each groundwater sample CC-RW01-072313 (residence), CC-RW02-072313 (warehouse/equipment shed), CC-RW02-072313D and CC-RW03-072313 (residence) were collected from an outdoor spigot. Groundwater sample CC-RW02-072313D is duplicate sample collected at CC-RW02-072313. The groundwater sample locations are shown on Figure 3-1.

At each well, water softeners and filtration systems were bypassed if present, and the system was purged for a minimum of 20 minutes to ensure that samples were representative of water flowing through the aquifer. During the well purging, a Yellow Springs Instruments Model 556 multiparameter water-quality Sonde was used to monitor the pH, temperature, conductivity, dissolved oxygen (DO) content, and oxidation-reduction potential (ORP) of the purge water. Water quality parameters were recorded approximately every 5 minutes. Groundwater sampling began once stabilization was achieved for pH (± 0.1 standard unit), specific conductance (± 3 percent [%]), ORP (± 10 millivolts), DO (± 0.3 milligram per liter [mg/L]), temperature (± 0.5 degree Celsius [°C]), and turbidity (± 10%).

3.2.2 Soil Sampling

WESTON START used 3-inch, stainless-steel hand augers to advance 15 soil borings to a depth of 2 ft bgs at 14 on-site locations and 1 off-site background location (Figure 3-1: CC-SO01 through CC-SO15). At each soil boring location, WESTON START collected soil aliquots from 0 to 6, 6 to 12, 12 to 18, and 18 to 24 inches bgs. WESTON START recorded the lithology and visual observations for each core in the Site logbook and then photographed the material. A MultiRAE photoionization detector (PID) was used to screen each aliquot for volatile organic compounds (VOC). At one location, CC-SO08, PID readings exceeded the background readings in the aliquot from 12 to 18 inches bgs. WESTON START returned to this location, advanced a second boring adjacent to the original location, and collected a soil sample from 12 to 18 inches bgs.

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WESTON START collected another seven soil samples (six investigative and one duplicate) from on-site locations CC-SO01, CC-SO02, CC-SO08, CC-SO12, CC-SO13, and CC-SO14 from 0 to 12 inches bgs. These soil sampling locations were biased toward areas of alleged dumping reported by EPA SAM David Brauner. WESTON START also collected one soil sample from background location CC-SO15 in the KRSP from 0 to 12 inches bgs. Soil samples for VOC analysis were collected immediately from the 0- to 6-inch-bgs interval. The remaining sample material from 0 to 6 inches bgs and from 6 to 12 inches bgs was homogenized and transferred into appropriate sample jars. The homogenizing procedure was designed to increase the probability that a relatively small sample aliquot is representative of a relatively large soil volume removed from a sampling location, thereby enhancing the representativeness and reproducibility of the sample. The homogenizing process was considered complete when the texture and color of the sample appeared uniform throughout. Care was given to remove stones, grass, and root material from each sample before the sample jar was filled. New topsoil with grass seed was placed in auger holes advanced in residential yards.

3.2.3 Sediment Sampling

Twenty sediment samples (eighteen investigative and two duplicate) were collected from each of the nine sediment sampling locations from 0 to 6 and 6 to 12 inches below sediment surface (bss) (Figure 3-1: CC-SD01 through CC-SD09). Sediment cores were collected by driving a 3- or 4-inch-diameter Lexan tube using a slam bar into subsurface sediment to a depth 12 inches bss. In areas where obstruction or refusal occurred and a representative sample could not be collected, the location was off set up to 20 ft to obtain the appropriate material. A hand auger with a 4-inch bucket was used to collect the sediment cores in areas where the Lexan tube and slam bar could not be used because of the predominance of gravel and cobbles.

Sample cores collected using a Lexan tube were processed on shore at a designated sample processing area. Sample cores collected using a hand auger were processed in the field at the sampling location. WESTON recorded the lithology and visual observations for each sediment core in the Site logbook and photographed the material. Sediment samples for VOC analysis were collected immediately using Encore samplers to minimize potential volatilization. The remaining material was homogenized in an aluminum pan before placement into the required sample

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containers using a disposable plastic spoon. Samples were maintained at 4 °C with ice immediately after collection.

3.2.4 Sample Packaging, Storage, Shipment, and Analysis

WESTON START performed all sample packaging, storage, and shipment activities in accordance with the EPA-approved SAP. WESTON submitted 4 groundwater, 8 soil, and 20 sediment samples to the EPA Contract Laboratory Program (CLP) laboratories. The Chemtech Consulting Group laboratory in Mountainside, New Jersey, analyzed the samples for Target Analyte List (TAL) metals, mercury, and cyanide. The Spectrum Analytical, Inc., laboratory in North Kingstown, Rhode Island, analyzed the samples for Target Compound List (TCL) VOCs, TCL semivolatile organic compounds (SVOC), and % solids. All sample documents (such as chain-of-custody forms) were affixed to the underside of each sample transport container lid. Each container lid was sealed with shipping tape, and custody seals were affixed to each transport container. Transport containers were labeled with the origin and destination locations. Sample packing, storage, and shipment activities were carried out in accordance with regulations promulgated by the U.S. Department of Transportation and the International Air Transport Association.

4. SAMPLE ANALYTICAL RESULTS

This section discusses the background sample analytical results followed by the investigative sample analytical results. **Appendix C** provides laboratory analytical results and data validation reports for the samples collected.

4.1 SAMPLE ANALYTICAL RESULTS

Groundwater and soil sample analytical results were compared to Superfund Chemical Data Matrix (SCDM) benchmark values as discussed below. The SCDM is a source of factor values and benchmark values applied when evaluating potential NPL sites using the Hazard Ranking System (HRS). Factor values are part of the HRS mathematical equation for determining the relative threat posed by a hazardous waste site and reflect hazardous substance characteristics, such as toxicity and persistence in the environment, substance mobility, and potential for

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bioaccumulation. Benchmarks are environment- or health-based substance concentration limits, including some developed by or used in other EPA regulatory programs. SCDM contains HRS factor values and benchmark values for hazardous substances frequently found at sites evaluated using the HRS as well as the physical, chemical, and radiological data used to calculate those values. SCDM benchmarks do not exist for sediment samples. Sample results were also compared to background contaminant levels and to Contract Quantitation Reporting Limits (CRQLs) for contaminants that were not detected in background samples. The results of the sampling are discussed below.

4.1.1 Soil Sample Analytical Results

Soil SCDM benchmarks include Reference Dose Screening Concentrations for non-carcinogenic chemicals and Cancer Risk Screening Concentrations for carcinogenic chemicals. **Table 4-1** and **Figure 4-2** present the soil sample analytical results for each detected analyte. The soil background sample was collected from location CC-SO15 in the KRSP from 0 to 12 inches bgs. Results for this sample were compared to the analytical results for the investigative soil samples collected from the on-site locations (CC-SO01, CC-SO02, CC-SO08, CC-SO12, CC-SO13, and CC-SO14). **Table 4-2** presents analytical results for detected chemicals where (1) on-site sample concentrations exceeded three times the maximum background concentration or (2) background sample concentrations were below CRQLs and on-site sample concentrations were above CRQLs. No organic compounds met observed release criteria. While many inorganic contaminants met observed release criteria, nearly all of the detections that did so were in one soil sample. Results are summarized below.

- Aluminum was detected in soil sample CC-SO08-(12-24)-072313 at 8,520 milligrams per kilogram (mg/kg), more than three times the maximum background concentration of 2,590 mg/kg.
- Antimony was detected in release samples CC-SO01-[0-12]-072413, CC-SO02-[0-12]-072413, CC-SO08-[12-24]-072313, CC-SO13-[0-12]-072413, and in the background sample, but only one release sample exceeded 3x the background concentration and was "J" qualified, and therefore does not represent observed releases.
- Arsenic was detected in all the soil samples (CC-SO01-[0-12]-072413, CC-SO02-[0-12]-072413, CC-SO08-[12-24]-072313, CC-SO12-[0-12]-072313, CC-SO13-[0-12]-072413, CC-SO13-[0-12]-072413D, CC-SO14-[0-12]-072413, and CC-SO15-[0-12]-072513) at concentrations ranging from 1.2 to 19 mg/kg, but only exceeded 3x the background concentration of 1.7 mg/kg in one release sample: CC-SO08-(12-24)-072313 at 19 mg/kg.

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Arsenic was the only constituent detected at concentrations exceeding SCDM benchmark values. The concentration of arsenic in sample CC-SS08 exceeded the Cancer Risk Screening Concentration of 0.43 mg/kg, but does not exceed the Reference Dose Screening Concentration of 23 mg/kg.

- Barium was detected in soil sample CC-SO08-(12-24)-072313 at 240 mg/kg, more than three times the maximum background concentration of 53 mg/kg.
- Cadmium was detected below the CRQL in soil samples CC-SO14-(0-12)-072413 and CC-SO01-(0-12)-072413 at concentrations of 0.11 mg/kg and 0.42 mg/kg, respectively. Cadmium was detected above the CRQL in soil sample CC-SO08-(12-24)-072313. Cadmium was not detected above the CRQL in the background sample.
- Cobalt was detected below the CRQL in soil sample CC-SO14-(0-12)-072413 at an estimated concentrations of 1.1 mg/kg. Cobalt was detected above the CRQL in soil samples CC-SO01-(0-12)-072413 and CC-SO08-(12-24)-072313 at concentrations of 5.7 and 20.2 mg/kg, respectively. Cobalt was not detected above the CRQL in the background sample.
- Copper was detected in soil samples CC-SO01-(0-12)-072413, CC-SO08-(12-24)-072313, CC-SO13-(0-12)-072413, and CC-SO13-(0-12)-072413D at concentrations ranging from 9.5 to 12.5 mg/kg, more than three times the maximum background concentration of 3.1 mg/kg.
- Iron was detected in soil sample CC-SO08-(12-24)-072313 at 47,800 mg/kg, more than three times the maximum background concentration of 5,120 mg/kg.
- Lead was detected in soil sample CC-SO08-(12-24)-072313 at 34.5 mg/kg, more than three times the maximum background concentration of 8.1 mg/kg.
- Manganese was detected in soil sample CC-SO08-(12-24)-072313 at 4,370 mg/kg, more than three times the maximum background concentration of 660 mg/kg.
- Nickel was detected in soil sample CC-SO08-(12-24)-072313 at 28.4 mg/kg, more than three times the maximum background concentration of 3.7 mg/kg.
- Selenium was detected below the CRQL in soil samples CC-SO01-(0-12)-072413, CC-SO02-(0-12)-072413, CC-SO08-(12-24)-072313, CC-SO12-(0-12)-072313, CC-SO13-(0-12)-072413, CC-SO13-(0-12)-072413D, and CC-SO14-(0-12)-072413 at estimated concentrations ranging from 0.41 to 1.3 mg/kg. Selenium was detected above the CRQL in soil sample CC-SO08-(12-24)-072313 at a concentration of 4.1 mg/kg. Selenium was not detected above the CRQL in the background sample.
- Silver was detected in soil sample CC-SO08-(12-24)-072313 at 4.5 mg/kg, more than three times the maximum background concentration of 0.48 mg/kg.
- Vanadium was detected in soil sample CC-SO08-(12-24)-072313 at 25.5 mg/kg, more than three times the maximum background concentration of 6.2 mg/kg.
- Bis(2-ethylhexyl)phthalate was detected below the CRQL in soil samples CC-SO13-(0-12)-072413 and CC-SO13-(0-12)-072413D at an estimated concentration of 38

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micrograms per kilogram (µg/kg). Bis(2-ethylhexyl)phthalate was not detected above the CRQL in the background sample.

- Butylbenzylphthalate was detected below the CRQL in soil samples CC-SO13-(0-12)-072413 and CC-SO13-(0-12)-072413D at estimated concentrations of 41 and 38 µg/kg, respectively. Butylbenzylphthalate was not detected above the CRQL in the background sample.

4.1.2 Sediment Sample Analytical Results

Table 4-3 and **Figures 4-3** and **4-4** present the sediment sample analytical results for each detected analyte. Results for sediment samples collected from Rayns Creek from background locations CC-SD01 and CC-SD02 were compared to results for investigative sediment samples collected from downstream Rayns Creek from locations CC-SD03 through CC-SD06. Kankakee River samples CC-SD07 and CC-SD09 were compared to background sample CC-SD08. For Rayns Creek and the Kankakee River, **Table 4-4** and **Table 4-5** respectively present analytical results for detected chemicals where (1) downstream sample concentrations exceeded three times the maximum background concentration or (2) background sample concentrations were below detection limits and downstream sample concentrations were above CRQLs. Cadmium, cobalt, cyanide, manganese, nickel, potassium, selenium, bis(2-ethylhexyl)phthalate, and butylbenzylphthalate met these observed release criteria for Rayns Creek. Results are summarized below.

- Cadmium was detected below CRQL in Rayns Creek sediment samples CC-SD05-(0-6)-072413 and CC-SD06-(0-6)-072413 at estimated concentrations of 0.14 and 0.41 mg/kg, respectively. Cadmium was detected in Rayns Creek sediment samples CC-SD04-(0-6)-072513D (duplicate sample), CC-SD05-(6-12)-072413 and CC-SD06-(6-12)-072413 at concentrations of 0. 53, 0.72 and 0.98 mg/kg, respectively. Cadmium was not detected above the CRQL in any Rayns Creek background sample. Cadmium was detected in Kankakee River sediment samples but no release sample concentration exceeded three times the background concentration.
- Cobalt was detected in Rayns Creek sediment samples CC-SD03-(0-6)-072513, CC-SD03-(6-12)-072513, CC-SD04-(0-6)-072513, CC-SD04-(6-12)-072513, CC-SD05-(0-6)-072413, CC-SD06-(0-6)-072413 at estimated concentrations ranging from 1.9 to 3.9 mg/kg. Cobalt was detected above the CRQL in Rayns Creek sediment samples CC-SD04-(0-6)-072513D, CC-SD05-(6-12)-072413, and CC-SD06-(6-12)-072413 at concentrations ranging from 7 to 14.8 mg/kg. Cobalt was not detected above the CRQL in any Rayns Creek background sample. Cobalt was detected in Kankakee River sediment samples but no release sample concentration exceeded three times the background concentration.

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- Cyanide was detected below the CRQL at an estimated concentration of 0.31 mg/kg in sediment sample CC-SD06-(0-6)-072413. Cyanide was not detected above the CRQL in any Rayns Creek background sample. Cyanide was not detected in Kankakee River sediment samples
- Manganese was detected in sediment sample CC-SD04-(0-6)-072513D at an estimated concentration of 799 mg/kg ("J") and in sediment sample CC-SD06-(0-6)-072413 at 545 mg/kg, more than three times the maximum background concentration of 173 mg/kg. Manganese was detected in Kankakee River samples, but no release sample concentration exceeded three times the background concentration.
- Mercury was detected below CRQL at an estimated concentration of 0.077 mg/kg ("J-") in Kankakee River sediment sample CC-SD07-(6-12)-072413. Mercury was not detected above the CRQL in the background sample. Mercury was not detected in any Rayns Creek sediment sample. Mercury does not met observed release criteria.
- Nickel was detected in Rayns Creek sediment sample CC-SD06-(6-12)-072413 at 35.3 mg/kg, more than three times the maximum background concentration of 11.6 mg/kg. Nickel was detected in all three Kankakee River samples, but no release sample concentration exceeded three times the background concentration.
- Selenium was detected in Rayns Creek sediment samples CC-SD05-(6-12)-072413 and CC-SD06-(6-12)-072413 at estimated concentrations of 2.6 and 3.3 mg/kg, respectively, more than three times the estimated maximum background concentration of 0.55 mg/kg. Selenium was detected at estimated concentrations in all three Kankakee River samples, but no release sample concentration exceeded three times the estimated background concentration.
- Bis(2-ethylhexyl)phthalate was detected in Rayns Creek sediment samples CC-SD04-(0-6)-072513, CC-SD04-(0-6)-072513D, CC-SD04-(6-12)-072513, CC-SD05-(0-6)-072413, and CC-SD06-(0-6)-072413 at estimated concentrations ranging from 70 to 160 µg/kg. Bis(2-ethylhexyl)phthalate was not detected above the CRQL in any Rayns Creek background sample, but was detected in sediment sample CC-SD05-(6-12)-072413 at a concentration of 290 µg/kg, which was greater than the CRQL and therefore established observed release to Rayns Creek. Bis(2-ethylhexyl)phthalate was detected in Kankakee River sample CC-SD09-(0-6) at 1,500 µg/kg. The Kankakee River background sample concentration was "J" qualified. Therefore it was adjusted according to EPA guidance (EPA 540-F-94-028) to a concentration of 520 µg/kg. The release sample concentration of 1500 µg/kg is less than 3x the adjusted background sample concentration and therefore does not meet observed release criteria.
- Butylbenzylphthalate was detected in sediment samples CC-SD04-(0-6)-072513, CC-SD04-(0-6)-072513D, CC-SD04-(6-12)-072513, CC-SD05-(0-6)-072413, CC-SD05-(6-12)-072413, CC-SD06-(0-6)-072413, and CC-SD06-(6-12)-072413 at estimated concentrations ranging from 43 to 62 µg/kg. Butylbenzylphthalate was not detected above CRQLs in any Rayns Creek background sample. Butylbenzylphthalate was detected in all Kankakee River samples, but no release sample concentration exceeded three times the background concentration.

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4.1.3 Groundwater Sample Analytical Results

Groundwater sample analytical results were compared to Maximum Contaminant Levels (MCL) / Maximum Contaminant Level Goals (MCLG), **Table 4-6** and **Figure 4-1** present the groundwater sample analytical results for each detected analyte. Arsenic was detected in samples CC-RW02-072313 and CC-RW02-072313D at 5.5 and 5.4 micrograms per liter (µg/L), respectively, exceeding the CRQL of 1 µg/L. These concentrations do not exceed the MCL of 10 µg/L.

5. PATHWAYS

This section discusses the groundwater, surface water, soil exposure, and air pathways for the Site.

5.1 GROUNDWATER PATHWAY

The groundwater pathway is of concern for the Site because of the potential for Site-related contaminants to migrate into local groundwater. However, there is no indication that the Castle Construction site is impacting local groundwater used for drinking water supply purposes. **Figure 5-1** presents the 4-mile radius map for the Site.

ISGS well logs suggest that a glacial drift formation consisting of sand and gravel exists at the Site to at least 25 ft bgs (ISGS 2008). No potentiometric surface for the on-site glacial drift aquifer could be created for the figures in this report based on the three well logs provided by ISGS. However, the aquifer is expected to follow the topographic gradient of the Site and flow southwest.

The generalized Site area geology is depicted on three cross-section figures created based on available ISGS well logs (ISGS 2008). **Figure 5-2** shows the locations of the geologic cross sections. **Figures 5-3**, **5-4,** and **5-5**, respectively, show cross sections A-A,' B-B,' and C-C'. The boring logs used to develop the cross sections are provided in Appendix D. The generalized area geological cross sections indicate that the sand and/or gravel layer is continuous to approximately 2 miles west, northwest, southwest, and southeast of the Site. Approximately 3,000 ft east and 1.75 miles northeast of the Site, the sand and/or gravel layer is replaced by a clay layer.

The following sections discuss the public water supply, karst areas, and wellhead protection areas.

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5.1.1 Public Water Supply

According to the City of Wilmington Department of Public Works (WESTON 2013) and an EPA Safe Drinking Water Information System (SDWIS) search for Will County, Illinois (EPA 2013a), Lakewood Shores and the City of Wilmington obtain groundwater from a community water system that serves the same people year-round. The Reed Custer Primary School obtains groundwater from a non-transient, non-community water system that serves the same people but not year-round. The KRSP obtains groundwater from a transient, non-community water system that does not consistently serve the same people. Both the school and park are located within the 4-mile target distance limit (TDL) from the Site (**Figure 5-1**). The following sections summarize the public groundwater supply systems for Lakewood Shores (Section 5.1.1.1), the City of Wilmington (Section 5.1.1.2), Reed Custer Primary School (Section 5.1.1.3), and KRSP (Section 5.1.1.4). Section 5.1.1.5 discusses the private residential water supply.

5.1.1.1 Lakewood Shores

Lakewood Shores is located about 1.5 miles south of the City of Wilmington and within the 1- to 2-, 2- to 3-, and 3- to 4-mile radii from the Site (**Figure 5-1**). The Lakewood Shores Improvement Association installed a community water system in 1957 (Woller and Sanderson 1983). In 1983, four groundwater wells were in use. Each groundwater well was drilled to 700 ft bgs and open to the Maquoketa group, the Galena-Platteville Dolomite group, and Glenwood-St. Peter Sandstone group. However, some time before 2008, Lakewood Shores began purchasing surface water from the City of Wilmington (Hect and Knapp 2008; EPA 2013a; WESTON 2013). Therefore, although the Lakewood Shores community is located within the 1- to 2-, 2- to 3-, and 3- to 4-mile radii from the Site, the estimated 868 people served by the community water system (EPA 2013a) are not considered targets for exposure through the groundwater pathway.

5.1.1.2 City of Wilmington

The City of Wilmington is located within the 3- to 4-mile radius from the Site (**Figure 5-1**). The City of Wilmington installed a community water system in 1892, and up to three wells historically have been in use. However, in 1990, the City of Wilmington began pumping water from the Kankakee River because of concerns about radium contamination in groundwater and overall cost

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efficiency (Hect and Knapp 2008; WESTON 2013) (See Section 5.2.1.1). The system maintains a backup well on South Island approximately 5.3 miles northwest of the Site, beyond the 4-mile radius from the Site. Therefore, although the City of Wilmington is located within the 3- to 4-mile radius from the Site, the estimated 5,764 people served by the city's community water system (EPA 2013a) are not considered targets for exposure through the groundwater pathway.

5.1.1.3 Reed Custer Primary School

The Reed Custer Primary School is located within the 2- to 3-mile radius from the Site (**Figure 5-1**). A non-transient, non-community water system provides water to the Reed Custer Primary School located at 35445 Washington Street, Custer Park, Illinois (**Figure 5-1**). According to the ISGS well log for API Well No. 1219707660, the well at Reed Custer Primary School property was installed in August 1969 to approximately 810 ft bgs into a sandstone formation (ISGS 2008). The well is approximately 2.14 miles west of the Site and serves approximately 300 people (EPA 2013a). Although the Reed Custer Primary School well is within the 2- to 3-mile radius from the Site, it is unlikely to be susceptible to contamination from the Site because it pumps water from a deep sandstone aquifer suspected to be hydraulically separate from the surface glacial drift aquifer.

5.1.1.4 Kankakee River State Park

The KRSP, which borders the Site to the east, installed a public water supply in 1953. According to the City of Kankakee, over 1 million people visit the KRSP each year (City of Kankakee Undated). The closest KRSP well to the Site is Well No. 5 (Camp Site 2 - Chippewa Campgrounds) which is located within the 3- to 4-mile radius from the Site (**Figure 5-1**). This well was completed in October 1958 to 102 ft bgs and serves one fountain and four taps at Camp Site 2 of the park (Woller and Sanderson 1983). The visitors to the park are not considered receptors because they do not consume the water from the park's well on a daily, long-term basis.

5.1.1.5 Private Residential Water Supply

Based on the U.S. Geological Survey (USGS) topographic map and 2010 U.S. Census Bureau data for Will County, Illinois, approximately 2,591 people live outside the incorporated boundaries of Lakewood Shores and the City of Wilmington within a 4-mile radius of the Site (USGS 1973a, 1973b, 1999a, 1999b; U.S. Census Bureau 2012). This population is supplied with water through

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private residential drinking water wells. The residential population with private residential wells within the 0- to 0.25-, 0.25- to 0.5-, 0.5- to 1-, 1- to 2-, and 3- to 4-mile radii from the Site were evaluated as potential primary targets as summarized below.

Distance from Site (miles)	No. of Households	Approximate Population using Residential Well
On site	2	6
0 to 0.25	2	6
0.25 to 0.5	9	27
0.5 to 1	38	114
1 to 2	298	899
2 to 3	247	743
3 to 4	286	861

Households within the incorporated boundary of the City of Wilmington located within the 3- to 4- mile radii from the Site were not counted because the City of Wilmington community water system supplies water to this population. Households within the boundary of the Lakewood Shores community located within the 2- to 3- and 3- to 4-mile radii from the Site were not counted because the Lakewood Shores community water system supplies water to this population.

5.1.1.6 On-Site Residential Wells

Arsenic was detected at 5.5 µg/L in sample CC-RW02-072313. However, this was a non-residential well and may not be used for drinking water purposes. The concentration of 5.5 µg/L is also less than the EPA MCL of 10 µg/L. Barium (12.2 µg/L), copper (6.9 µg/L), manganese (27.7 µg/L), nickel (1.1 µg/L), and zinc (3.7 µg/L) were all detected in sample CC-RW03-072313 at levels exceeding their respective CRQLs, suggesting an observed release to that well. However, none exceeded EPA MCLs where available (MCLs do not exist for nickel and are secondary standards for manganese and zinc). There is no indication that the Castle Construction site is impacting on-site private drinking water supply wells.

5.1.1.7 Karst Areas

According to the ISGS Map Service, there are no karst areas within a 4-mile radius from the Site (ISGS 2008).

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5.1.2 Wellhead Protection Areas

According to the Illinois Resource Management Mapping Service, there are no community water system Phase II wellhead protection areas within a 4-mile radius of the Site (University of Illinois Board of Trustees 2003).

5.2 SURFACE WATER PATHWAY

The surface water pathway consists of two pathways, the surface water overland migration and groundwater to surface water pathways. Each pathway is discussed below. **Figure 5-6** presents a map showing the 15-mile TDL from the probable point of entry (PPE). There is no indication that the Castle Construction site is impacting either Rayns Creek or the Kankakee River.

5.2.1 Surface Water Overland Migration Pathway

Surface water runoff from the Site flows southeast to Rayns Creek approximately 500 ft southeast of the Site. Surface water in Rayns Creek flows approximately 0.48 mile south, where the creek discharges into the Kankakee River. The Kankakee River flows northwest approximately 14.52 miles to the TDL. In 2011, the average discharge within the Kankakee River at a location within in the 15-mile TDL was 4,900 cubic feet per second (USGS 2013), making the classification of this reach of the Kankakee River a large stream to river.

The following sections discuss the public water supply, fisheries, sensitive environments, and endangered and threatened species.

5.2.1.1 Public Water Supply

In 1990, the City of Wilmington began using the Kankakee River for its community water system because of concerns about radium contamination in groundwater and overall cost efficiency (Hect and Knapp 2008; WESTON 2013). The community water system intake is located 8.3 stream miles from the PPE (**Figure 5-6**). The community water system provides water to approximately 5,764 residents in the City of Wilmington (EPA 2013a). The City of Wilmington can process up to 4.8 million gallons per day from the Kankakee River (Hect and Knapp 2008). Water is gravity-

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fed into a wet well before it is pumped to a treatment plant. The intake can pump 1,000 gallons per minute (gpm), but the plant can treat only 600 gpm.

Lakewood Shores purchases drinking water from the City of Wilmington (Hect and Knapp 2008; WESTON 2013). The City of Wilmington community water system provides water to 868 residents in Lakewood Shores (EPA 2013a).

5.2.1.2 Fisheries

The Kankakee River system contains a rich assemblage of about 72 species of fish (Illinois Department of Natural Resources [IDNR] 1996). Within the 15-mile TDL, the sport fishery includes smallmouth bass (*Micropterus dolomieu*), largemouth bass (*Micropterus salmoides*), rock bass (*Ambloplites rupestris*), walleye (*Sander vitreu*), northern pike (*Esox luciu*), crappie (*Pomoxis sp.)*, bluegill (*Lepomis macrochirus*), and channel catfish (*Ictalurus punctatus)*.

According to the Illinois Department of Health (IDPH), a fish consumption advisory exists within the 15-mile TDL for carp (*Cyprinus carpio*). The IDPH advises that for carp of any size caught between the Kankakee River Dam and the Illinois River, only one meal of carp be consumed per week due to high polychlorinated biphenyl (PCB) levels (IDPH 2012).

5.2.1.3 Sensitive Environments

According to the U.S. Fish and Wildlife Service (FWS), the 15-mile TDL surface water migration pathway is contiguous, with approximately 2,500 ft of wetlands along Rayns Creek. These wetlands are located within the KRSP. According to the FWS, the 15-mile TDL surface water migration pathway is contiguous, with approximately 5.76 miles of wetlands consisting of several freshwater forested/shrub wetlands (PFO1A) present along the riparian regions of the Kankakee River (FWS 2012).

5.2.1.4 Endangered and Threatened Species

One specimen of the federally endangered sheepnose mussel (*Plethobasus cyphyus*) was collected from the Kankakee River at Wilmington during a 1985 Illinois Natural History Survey (Kasprowicz and others 1985).

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Eleven specimens of the state-threatened river redhorse (*Moxostoma carinatum*) were collected from the Kankakee River at the Wilmington Dam during a 2000 IDNR survey (Pescitelli and Rung 2003).

5.2.2 Groundwater to Surface Water Pathway

The groundwater flow direction beneath the Site is unknown but suspected to be downgradient southeast toward Rayns Creek (PPE No. 2) approximately 1,200 ft southeast of the Site. From Rayns Creek, surface water follows the same route as discussed in Section 5.2.1 for the PPE.

5.3 SOIL EXPOSURE PATHWAY

The Site occupies approximately 30 acres. According to the petition submitted to the EPA under the authority of CERCLA Section 105(d), the Site is the location of illegal dumping that took place from the 1960s to the 1990s.

Two residential dwellings are located at the Site. According to the U.S. Census Bureau, the average household in Will County, Illinois, contains 3.01 persons (U.S. Census Bureau 2012). Based on this number, approximately six people live within the Site boundary. Three residential dwellings border the Site to the north, but these dwellings are more than 200 ft. from the Site. The population in 2010 living within a 1-mile radius of the Site was 166 people (EPA 2013b). Additionally, in 2012, Castle Construction had five to nine employees (Manta Media, Inc. 2012). No schools or daycare centers are located within 200 ft. of the Site.

No sensitive terrestrial environments are located on the Site, but approximately 5.6 acres of the Site appear to be used for agricultural purposes. There is no indication that the soil exposure pathway is being impacted by the Castle Construction site.

5.4 AIR PATHWAY

Two residential dwellings are located on the Site. According to the U.S. Census Bureau, the average household in Will County, Illinois, contains 3.01 persons (U.S. Census Bureau 2012). Based on this number, approximately six people live within the Site boundary. The EPA EJView mapper, formerly known as the Environmental Justice Geographic Assessment Tool, was used to

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calculate the population from 0 to 0.25, 0.25 to 0.5, 0.5 to 1, 1 to 2, 2 to 3, and 3 to 4 miles from the Site (EPA 2013b). The 2010 populations within these distance categories from the Site are summarized below.

Distance from Site (miles)	No. of Households
On site	6
0 to 0.25	0
0.25 to 0.5	30
0.5 to 1	136
1 to 2	818
2 to 3	904
3 to 4	1,212

According to the FWS, six wetlands comprising a total area of 33.17 acres are located within a 0.5-mile radius of the Site (FWS 2012) as summarized below.

Wetland Type	Wetland Classification	Distance and Direction from Site	Acres
Freshwater Emergent Wetland	PEMf	0.2 mile west-southwest	2.18
Freshwater Forested/Shrub Wetland	PFO1A	0.2 mile east-southeast	3.59
Freshwater Emergent Wetland	PEMf	0.25 mile south	0.26
Freshwater Forested/Shrub Wetland	PFO1C	0.35 mile east-southeast	5.47
Freshwater Emergent Wetland	PEMf	0.45 mile east-northeast	1.1
Freshwater Forested/Shrub Wetland	PFO1A	0.45 mile south	20.57
Total Wetland Area			**33.17**

6. SUMMARY

From July 23 through 25, 2013, WESTON conducted the SI in order to (1) characterize the impact of the Site to the groundwater, soil, and surface water pathways by defining chemical contaminants in residential groundwater, soil, and sediment; (2) summarize the impact of the Site on the groundwater, soil, surface water, and air pathways; and (3) provide information necessary to determine if the Site qualifies for possible inclusion on the NPL or should have a status of NFRAP.

The Site occupies approximately 30 acres and contains a pond, two residential dwellings, six structures (including sheds or barns potentially associated with the Castle Construction business),

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a plot of trees, and an agricultural plot. The Site is located within a mixed agricultural, residential, and undeveloped area. The closest perennial stream is Rayns Creek located 500 ft southeast of the Site. The Kankakee River is located 1,500 ft south of the Site. Approximately six people live within the Site boundary, no other people live within 200 ft of the Site, and approximately 166 people live within 1 mile of the Site. No schools or daycare centers are located within 200 ft of the Site.

WESTON START collected groundwater samples from three wells located within the Site boundary. While seven constituents were detected at levels that exceeded their respective CRQLs, none exceeded their respective EPA MCLs in any groundwater sample. Arsenic did exceed the SCDM cancer-risk benchmark value, but this was only in samples CC-RW02 (5.5 µg/L) and CC-RW02D (duplicate of CC-RW02) (5.4 µg/L), which were taken from a well not associated with a residence. However, arsenic was not detected in either residential well used for drinking water purposes. There is no indication that the groundwater pathway is being impacted by the Site.

Within the 4-mile groundwater TDL from the Site, a non-transient, non-community water system provides water to the Reed Custer Primary School located approximately 2.14 miles west of the Site. This system serves approximately 300 people. Additionally, approximately 2,591 people living outside the incorporated boundaries of Lakewood Shores and the City of Wilmington are supplied with water from private residential drinking wells. There is no indication that these targets are being impacted by the Site.

WESTON START collected soil samples from six on-site locations and one off-site background location. No SVOCs were detected at levels exceeding their respective CRQLs. Two were detected at levels below the CRQLs: bis(2-ethylhexyl)phthalate (38 µg/kg “J”) and butylbenzylphthalate (41 µg/kg “J”). No VOCs were detected in the soil samples at concentrations exceeding laboratory detection limits. No SVOCs or VOCs met observed release criteria. Arsenic was detected in all eight soil samples, but concentrations only exceeded three times background in sample CC-SO08. Cobalt and copper were detected at elevated levels in one (cobalt) or two (copper) other sample locations, the results in the release samples were only slightly above the CRQL (for cobalt) or 3x background (for copper). While these localized results met observed release criteria, there is no indication of site-wide soil contamination.

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WESTON START collected sediment samples from six locations in Rayns Creek and three locations in the Kankakee River. In Rayns Creek, four metals, and one SVOCs were detected in downstream sediment samples at concentrations exceeding either (1) three times the maximum background sample concentration or (2) the CRQL in downstream samples for chemicals not detected in the background samples. Neither cobalt nor cadmium was detected in either Rayns Creek background sample and therefore were compared to their respective CRQLs. Cobalt was detected in all release samples at levels exceeding the CRQL for cobalt; cadmium concentrations exceeded its CRQL in three samples. Manganese (two samples) and nickel (one sample) exceeded three times background concentrations in Rayns Creek. The organic compound bis(2-ethylhexyl)phthalate was detected in one Rayns Creek sample at a concentration that exceeded the CRQL (290 µg/kg in sample [CC-SD05-(6-12)].

In the Kankakee River, while the organic compound bis(2-ethylhexyl)phthalate was detected at 1500 µg/kg in one Kankakee River sample [CC-SD09-(0-6)], that concentration did not exceed three times the adjusted background concentration for the Kankakee River; and therefore observed release to the Kankakee River is not established for that compound.

It is not apparent that bis(2-ethylhexyl)phthalate detections in Rayns Creek or the Kankakee River can be attributed to the site. First, bis(2-ethylhexyl)phthalate was only detected in one soil sample on site at 38 µg/kg "J", which was lower than its CRQL, indicating that there was no observed release of that contaminant. Second, it was not detected in any of the on-site groundwater samples and does not appear to be related to any on-site activities or operations, which include a small agricultural area, two residences, and vehicle sheds/warehouses for the Castle Construction business. There is no indication that the site is impacting either Rayns Creek or the Kankakee River.

Within the 15-mile surface water TDL from the Site, the City of Wilmington community water system uses the Kankakee River. The community water system intake is located 8.3 stream miles from the PPE. The community water system provides water to 5,764 residents in the City of Wilmington and to the 868 residents in the Lakewood Shores community. There is no indication that this municipal water system has been impacted by the Site.

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The Kankakee River system contains a rich assemblage of 72 species of fish. Within the 15-mile TDL, the sport fishery includes several species of fish. One specimen of the federally endangered sheepnose mussel (*Plethobasus cyphyus*) was collected from the Kankakee River at Wilmington during a 1985 Illinois Natural History Survey, and 11 specimens of the state-threatened river redhorse (*Moxostoma carinatum*) were collected from the Kankakee River at the Wilmington Dam during a 2000 IDNR survey. According to the IDPH, a fish consumption advisory exists within the 15-mile TDL for carp (*Cyprinus carpio*). The IDPH advises that for carp of any size caught between the Kankakee River Dam and the Illinois River, only one meal of carp be consumed per week due to high PCB levels. PCBs are not associated with the Site; and therefore the Site is not contributing to the fish advisory.

The 15-mile TDL surface water migration pathway is contiguous, with appro-ximately 2,500 feet of wetlands along Rayns Creek and approximately 5.76 miles of wetlands along the Kankakee River. Additionally, six wetlands comprising a total area of 33.17 acres are located within a 0.5-mile radius of the Site. There is no indication that the wetlands have been impacted by the Site.

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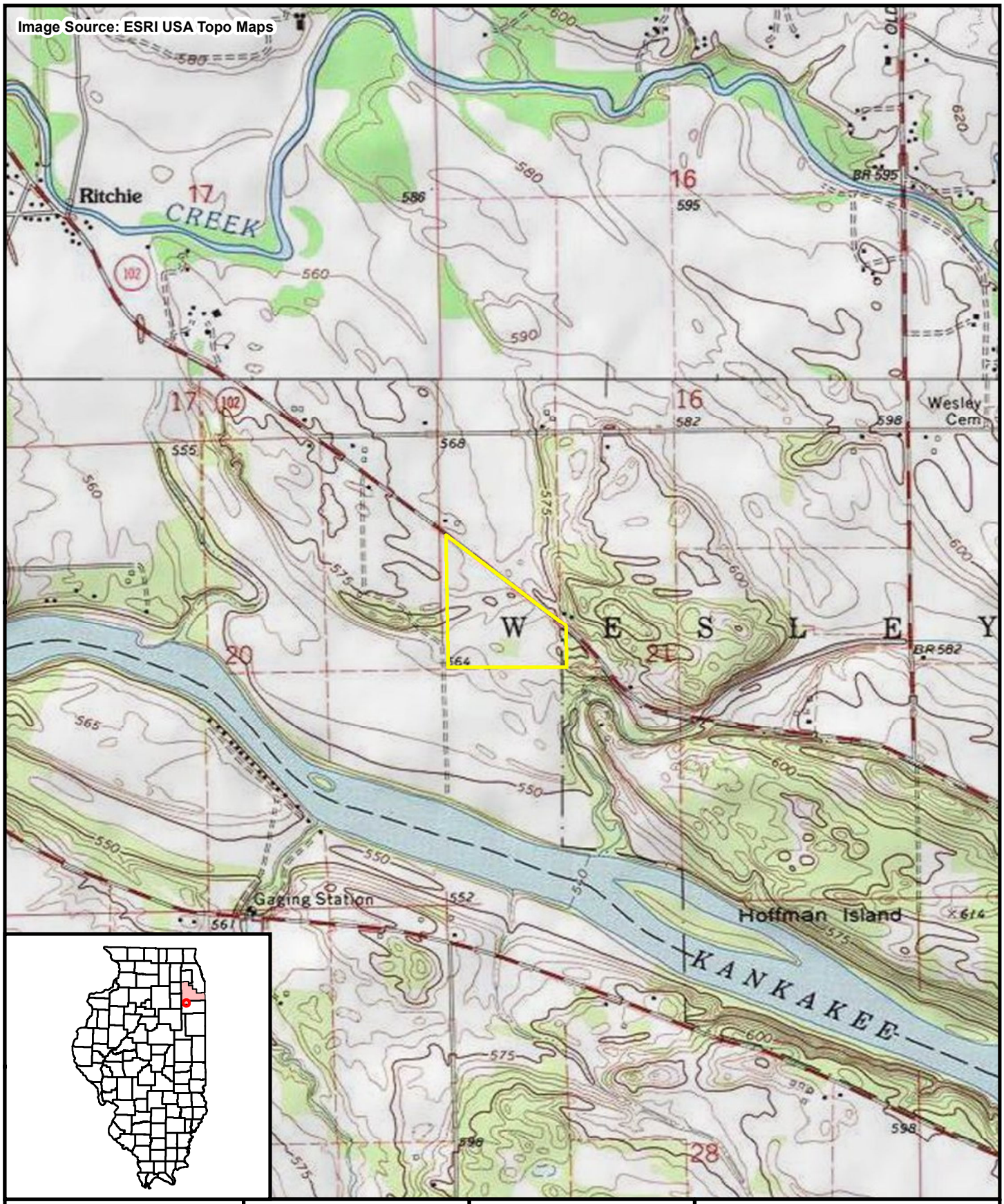

Legend

Site Boundary

0 2,000 Feet

N

Prepared For:
U.S. EPA REGION V

Contract No.: EP-S5-06-04
TDD: S05-0008-1305-009
DCN: 2141-2A-BIMG

Prepared By:
WESTON SOLUTIONS, INC

750 E Bunker Ct.
Suite 500
Vernon Hills, IL 60061

Figure 1-1
Site Location Map
Castle Construction Site
Wilmington, Will County, Illinois

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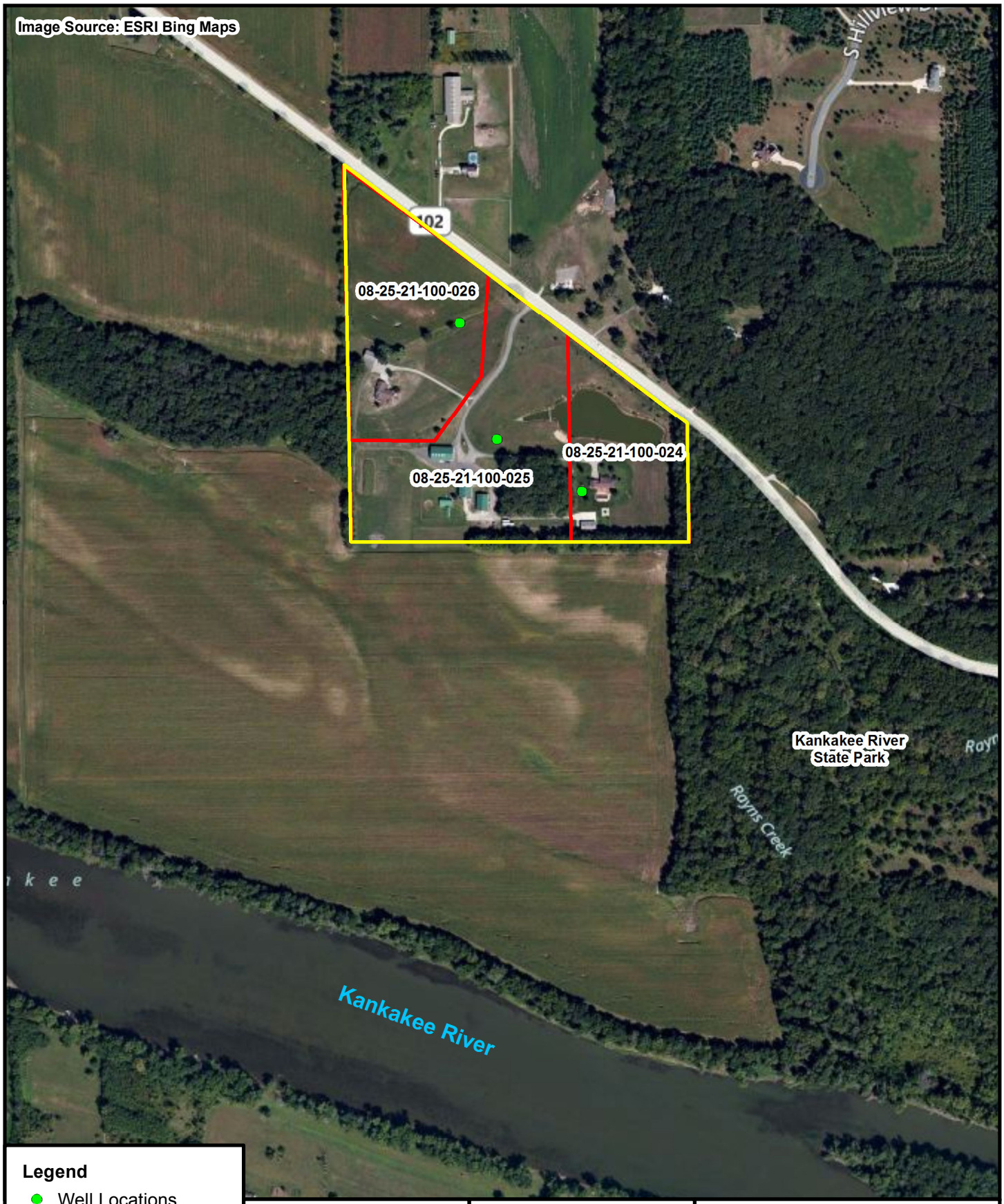

Legend

- Well Locations
- Site Boundary
- Parcels

0 700 Feet

N

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Contract No.: EP-S5-06-04
TDD: S05-0008-1305-009
DCN: 2141-2A-BIMG

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Figure 2-1
Site Features Map
Castle Construction Site
Wilmington, Will County, Illinois

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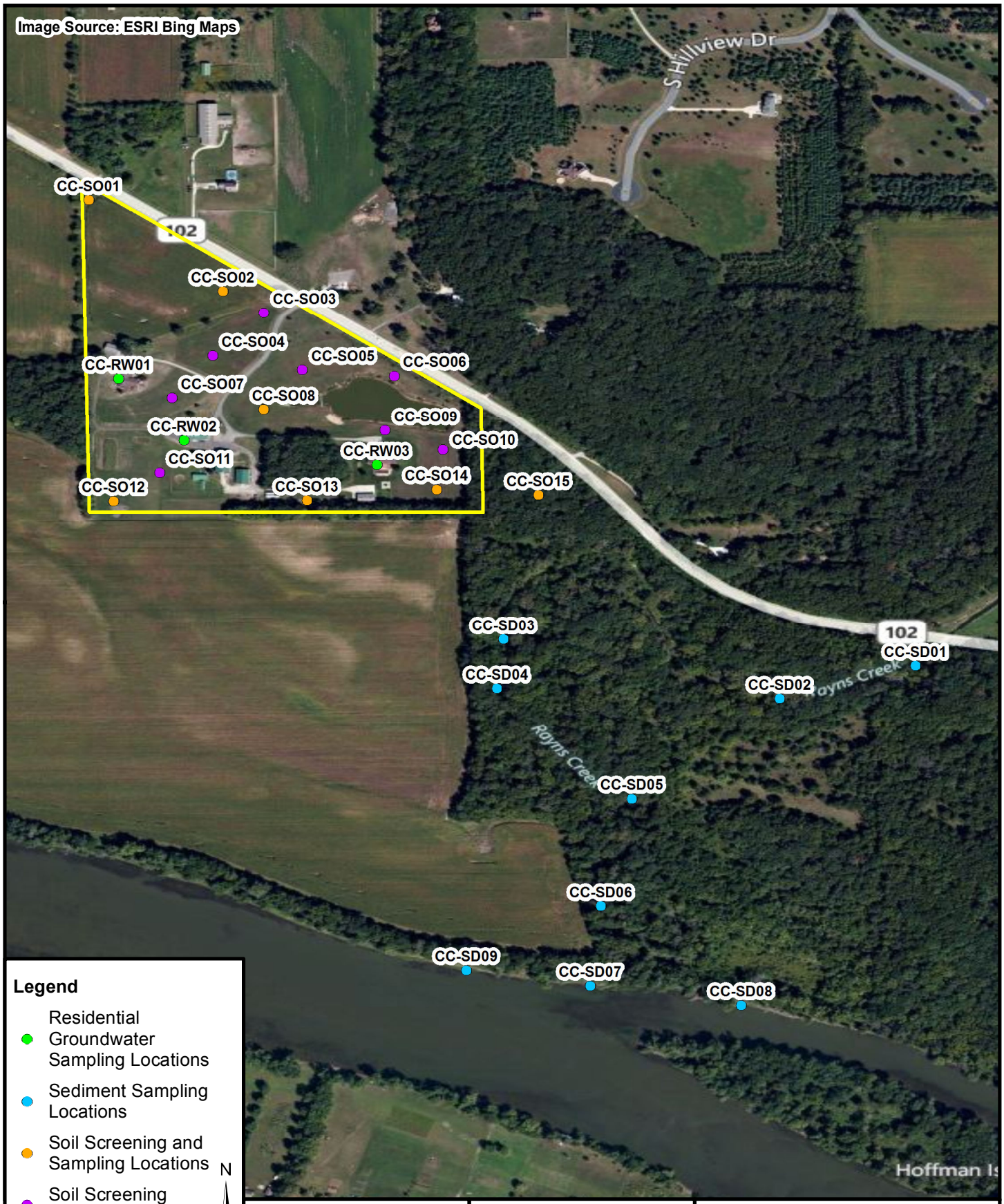

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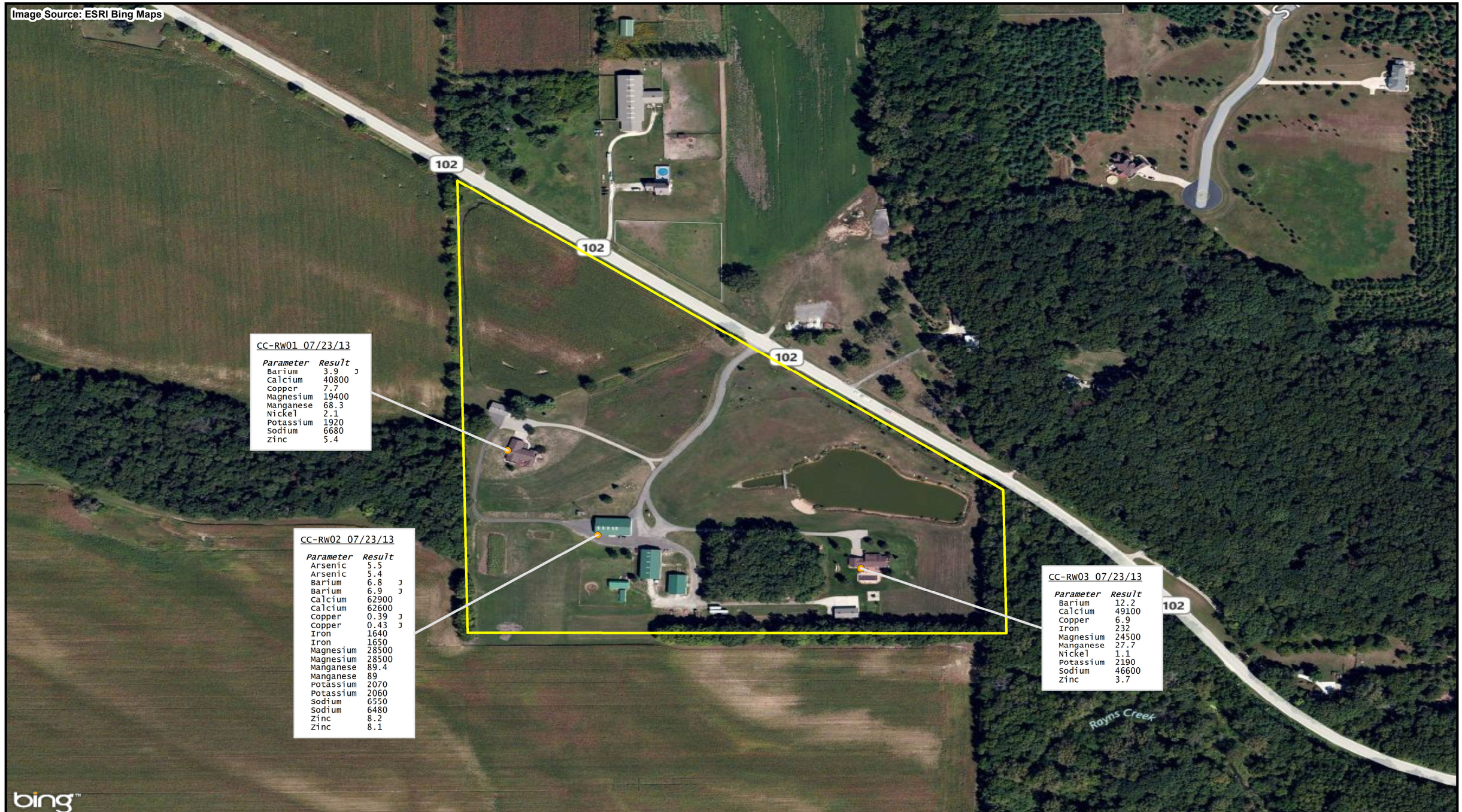
Figure 3-1
Sampling Location Map
Castle Construction Site
Wilmington, Will County, Illinois

FILE: D:\Castle_Construction\mxd\SI_Report\F3-1_Sampling_Locations.mxd 10/10/2013 4:44:32 PM wojdakon



Legend

- Locations with at least one detection
- Site Boundary

0 300 Feet

Reporting Units = ug/l

N

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U.S. EPA REGION V
Contract No.: EP-S5-06-04
TDD: S05-0008-1305-009
DCN: 2141-2A-BIMG

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Suite 500
Vernon Hills, Illinois 60061

Figure 4-1
Detected Results in Groundwater Samples
Castle Construction Site
Wilmington, Will County, Illinois

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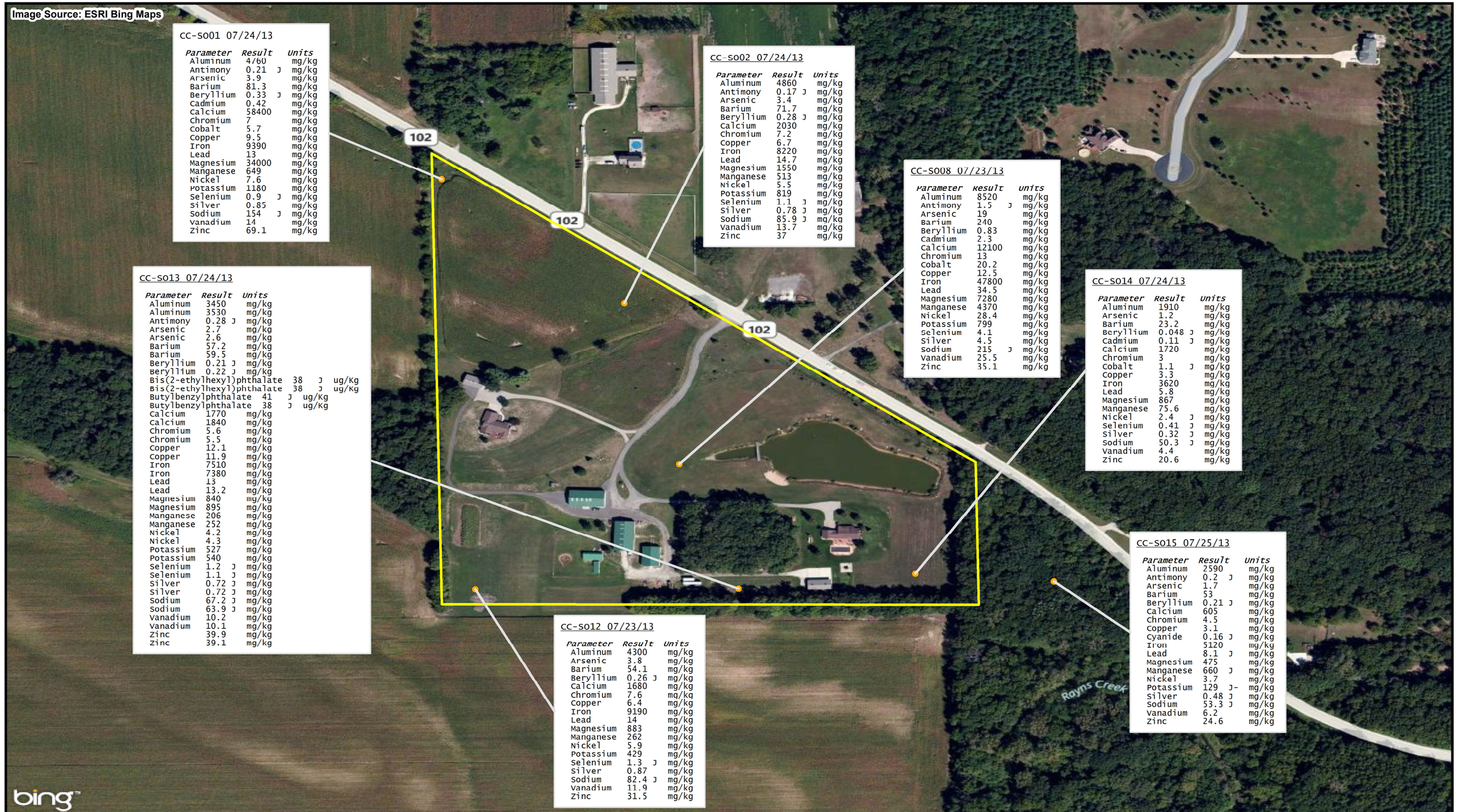

CC-S001 07/24/13

Parameter	Result		Units
Aluminum	4/60		mg/kg
Antimony	0.21	J	mg/kg
Arsenic	3.9		mg/kg
Barium	81.3		mg/kg
Beryllium	0.33	J	mg/kg
Cadmium	0.42		mg/kg
Calcium	58400		mg/kg
Chromium	7		mg/kg
Cobalt	5.7		mg/kg
Copper	9.5		mg/kg
Iron	9390		mg/kg
Lead	13		mg/kg
Magnesium	34000		mg/kg
Manganese	649		mg/kg
Nickel	7.6		mg/kg
Potassium	1180		mg/kg
Selenium	0.9	J	mg/kg
Silver	0.85		mg/kg
Sodium	154	J	mg/kg
Vanadium	14		mg/kg
Zinc	69.1		mg/kg

CC-S002 07/24/13

Parameter	Result		Units
Aluminum	4860		mg/kg
Antimony	0.17	J	mg/kg
Arsenic	3.4		mg/kg
Barium	71.7		mg/kg
Beryllium	0.28	J	mg/kg
Calcium	2030		mg/kg
Chromium	7.2		mg/kg
Copper	6.7		mg/kg
Iron	8220		mg/kg
Lead	14.7		mg/kg
Magnesium	1550		mg/kg
Manganese	513		mg/kg
Nickel	5.5		mg/kg
Potassium	819		mg/kg
Selenium	1.1	J	mg/kg
Silver	0.78	J	mg/kg
Sodium	85.9	J	mg/kg
Vanadium	13.7		mg/kg
Zinc	37		mg/kg

CC-S008 07/23/13

Parameter	Result		Units
Aluminum	8520		mg/kg
Antimony	1.5	J	mg/kg
Arsenic	19		mg/kg
Barium	240		mg/kg
Beryllium	0.83		mg/kg
Cadmium	2.3		mg/kg
Calcium	12100		mg/kg
Chromium	13		mg/kg
Cobalt	20.2		mg/kg
Copper	12.5		mg/kg
Iron	47800		mg/kg
Lead	34.5		mg/kg
Magnesium	7280		mg/kg
Manganese	4370		mg/kg
Nickel	28.4		mg/kg
Potassium	799		mg/kg
Selenium	4.1		mg/kg
Silver	4.5		mg/kg
Sodium	215	J	mg/kg
Vanadium	25.5		mg/kg
Zinc	35.1		mg/kg

CC-S013 07/24/13

Parameter	Result		Units
Aluminum	3450		mg/kg
Aluminum	3530		mg/kg
Antimony	0.28	J	mg/kg
Arsenic	2.7		mg/kg
Arsenic	2.6		mg/kg
Barium	57.2		mg/kg
Barium	59.5		mg/kg
Beryllium	0.21	J	mg/kg
Beryllium	0.22	J	mg/kg
Bis(2-ethylhexyl)phthalate	38	J	ug/Kg
Bis(2-ethylhexyl)phthalate	38	J	ug/Kg
Butylbenzylphthalate	41	J	ug/Kg
Butylbenzylphthalate	38	J	ug/Kg
Calcium	1770		mg/kg
Calcium	1840		mg/kg
Chromium	5.6		mg/kg
Chromium	5.5		mg/kg
Copper	12.1		mg/kg
Copper	11.9		mg/kg
Iron	7510		mg/kg
Iron	7380		mg/kg
Lead	13		mg/kg
Lead	13.2		mg/kg
Magnesium	840		mg/kg
Magnesium	895		mg/kg
Manganese	206		mg/kg
Manganese	252		mg/kg
Nickel	4.2		mg/kg
Nickel	4.3		mg/kg
Potassium	527		mg/kg
Potassium	540		mg/kg
Selenium	1.2	J	mg/kg
Selenium	1.1	J	mg/kg
Silver	0.72	J	mg/kg
Silver	0.72	J	mg/kg
Sodium	67.2	J	mg/kg
Sodium	63.9	J	mg/kg
Vanadium	10.2		mg/kg
Vanadium	10.1		mg/kg
Zinc	39.9		mg/kg
Zinc	39.1		mg/kg

CC-S014 07/24/13

Parameter	Result		Units
Aluminum	1910		mg/kg
Arsenic	1.2		mg/kg
Barium	23.2		mg/kg
Beryllium	0.048	J	mg/kg
Cadmium	0.11	J	mg/kg
Calcium	1720		mg/kg
Chromium	3		mg/kg
Cobalt	1.1	J	mg/kg
Copper	3.3		mg/kg
Iron	3620		mg/kg
Lead	5.8		mg/kg
Magnesium	867		mg/kg
Manganese	75.6		mg/kg
Nickel	2.4	J	mg/kg
Selenium	0.41	J	mg/kg
Silver	0.32	J	mg/kg
Sodium	50.3	J	mg/kg
Vanadium	4.4		mg/kg
Zinc	20.6		mg/kg

CC-S012 07/23/13

Parameter	Result		Units
Aluminum	4300		mg/kg
Arsenic	3.8		mg/kg
Barium	54.1		mg/kg
Beryllium	0.26	J	mg/kg
Calcium	1680		mg/kg
Chromium	7.6		mg/kg
Copper	6.4		mg/kg
Iron	9190		mg/kg
Lead	14		mg/kg
Magnesium	883		mg/kg
Manganese	262		mg/kg
Nickel	5.9		mg/kg
Potassium	429		mg/kg
Selenium	1.3	J	mg/kg
Silver	0.87		mg/kg
Sodium	82.4	J	mg/kg
Vanadium	11.9		mg/kg
Zinc	31.5		mg/kg

CC-S015 07/25/13

Parameter	Result		Units
Aluminum	2590		mg/kg
Antimony	0.2	J	mg/kg
Arsenic	1.7		mg/kg
Barium	53		mg/kg
Beryllium	0.21	J	mg/kg
Calcium	605		mg/kg
Chromium	4.5		mg/kg
Copper	3.1		mg/kg
Cyanide	0.16	J	mg/kg
Iron	5120		mg/kg
Lead	8.1	J	mg/kg
Magnesium	475		mg/kg
Manganese	660	J	mg/kg
Nickel	3.7		mg/kg
Potassium	129	J-	mg/kg
Silver	0.48	J	mg/kg
Sodium	53.3	J	mg/kg
Vanadium	6.2		mg/kg
Zinc	24.6		mg/kg

Legend

- Locations with at least one detection
- Site Boundary

0 300 Feet

N

Prepared for:
U.S. EPA REGION V
Contract No.: EP-S5-06-04
TDD: S05-0008-1305-009
DCN: 2141-2A-BIMG

Prepared By:
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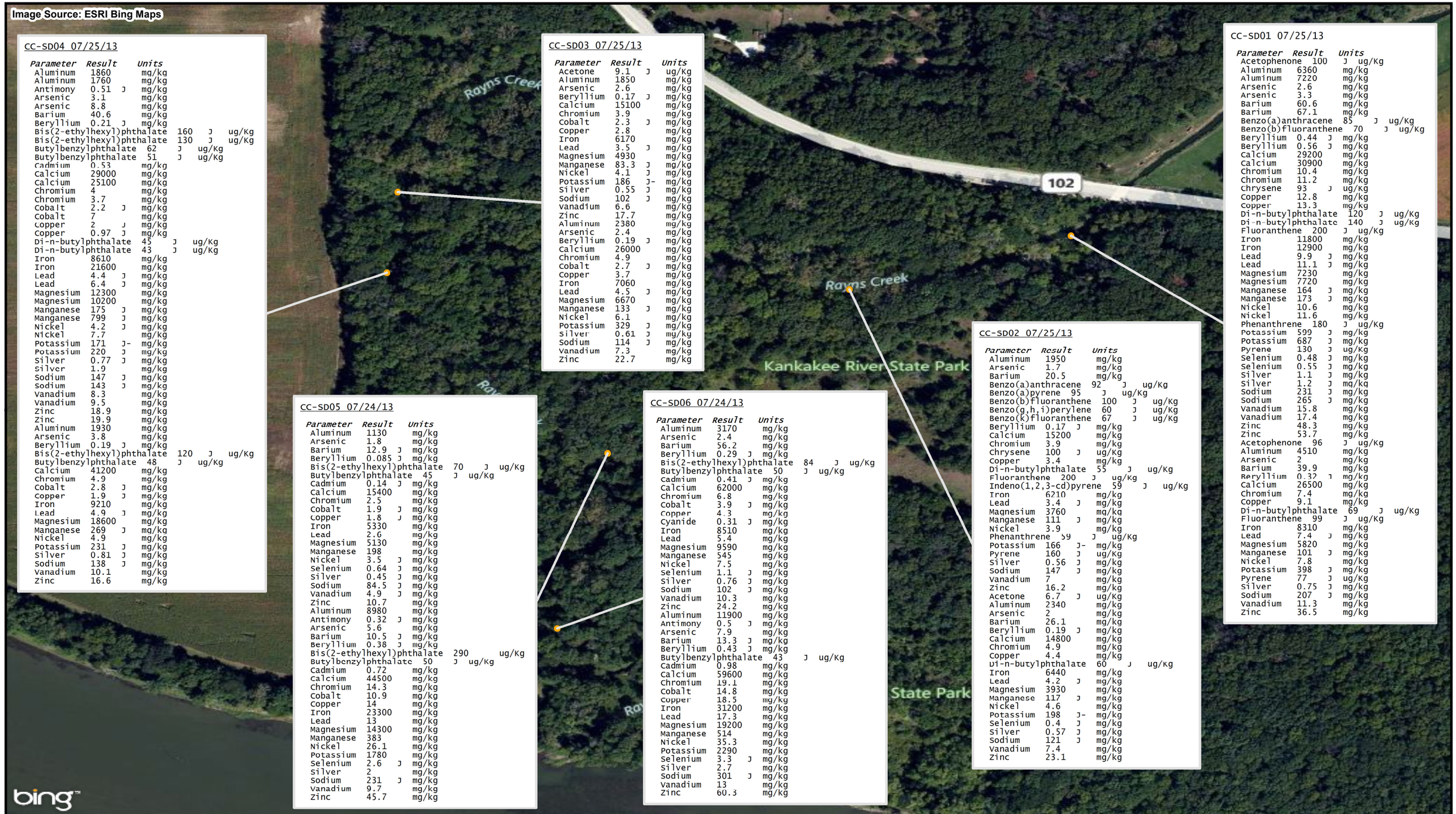
750 E. Bunker Court
Suite 500
Vernon Hills, Illinois 60061

Figure 4-2
Detected Results in Soil Samples
Castle Construction Site
Wilmington, Will County, Illinois

FILE: D:\Castle_Construction\mxd\SI_Report\F4-2_Soil_Detects.mxd 12/4/2013 10:54:44 AM wojdakon



CC-SD04 07/25/13

Parameter	Result		Units
Aluminum	1860		mg/kg
Aluminum	1760		mg/kg
Antimony	0.51	J	mg/kg
Arsenic	3.1		mg/kg
Arsenic	8.8		mg/kg
Barium	40.6		mg/kg
Beryllium	0.21	J	mg/kg
Bis(2-ethylhexyl)phthalate	160	J	ug/Kg
Bis(2-ethylhexyl)phthalate	130	J	ug/Kg
Butylbenzylphthalate	62	J	ug/Kg
Butylbenzylphthalate	51	J	ug/Kg
Cadmium	0.53		mg/kg
Calcium	29000		mg/kg
Calcium	25100		mg/kg
Chromium	4		mg/kg
Chromium	3.7		mg/kg
Cobalt	2.2	J	mg/kg
Cobalt	7		mg/kg
Copper	2	J	mg/kg
Copper	0.97	J	mg/kg
Di-n-butylphthalate	45	J	ug/Kg
Di-n-butylphthalate	43	J	ug/Kg
Iron	8610		mg/kg
Iron	21600		mg/kg
Lead	4.4	J	mg/kg
Lead	6.4	J	mg/kg
Magnesium	12300		mg/kg
Magnesium	10200		mg/kg
Manganese	175	J	mg/kg
Manganese	799	J	mg/kg
Nickel	4.2	J	mg/kg
Nickel	7.7		mg/kg
Potassium	171	J-	mg/kg
Potassium	220	J	mg/kg
Silver	0.77	J	mg/kg
Silver	1.9		mg/kg
Sodium	147	J	mg/kg
Sodium	143	J	mg/kg
Vanadium	8.3		mg/kg
Vanadium	9.5		mg/kg
Zinc	18.9		mg/kg
Zinc	19.9		mg/kg
Aluminum	1930		mg/kg
Arsenic	3.8		mg/kg
Beryllium	0.19	J	mg/kg
Bis(2-ethylhexyl)phthalate	120	J	ug/Kg
Butylbenzylphthalate	48	J	ug/Kg
Calcium	41200		mg/kg
Chromium	4.9		mg/kg
Cobalt	2.8	J	mg/kg
Copper	1.9	J	mg/kg
Iron	9210		mg/kg
Lead	4.9	J	mg/kg
Magnesium	18600		mg/kg
Manganese	269	J	mg/kg
Nickel	4.9		mg/kg
Potassium	231	J	mg/kg
Silver	0.81	J	mg/kg
Sodium	138	J	mg/kg
Vanadium	10.1		mg/kg
Zinc	16.6		mg/kg

CC-SD03 07/25/13

Parameter	Result		Units
Acetone	9.1	J	ug/Kg
Aluminum	1850		mg/kg
Arsenic	2.6		mg/kg
Beryllium	0.17	J	mg/kg
Calcium	15100		mg/kg
Chromium	3.9		mg/kg
Cobalt	2.3	J	mg/kg
Copper	2.8		mg/kg
Iron	6170		mg/kg
Lead	3.5	J	mg/kg
Magnesium	4930		mg/kg
Manganese	83.3	J	mg/kg
Nickel	4.1	J	mg/kg
Potassium	186	J-	mg/kg
Silver	0.55	J	mg/kg
Sodium	102	J	mg/kg
Vanadium	6.6		mg/kg
Zinc	17.7		mg/kg
Aluminum	2380		mg/kg
Arsenic	2.4		mg/kg
Beryllium	0.19	J	mg/kg
Calcium	26000		mg/kg
Chromium	4.9		mg/kg
Cobalt	2.7	J	mg/kg
Copper	3.7		mg/kg
Iron	7060		mg/kg
Lead	4.5	J	mg/kg
Magnesium	6670		mg/kg
Manganese	133	J	mg/kg
Nickel	6.1		mg/kg
Potassium	329	J	mg/kg
Silver	0.61	J	mg/kg
Sodium	114	J	mg/kg
Vanadium	7.3		mg/kg
Zinc	22.7		mg/kg

CC-SD01 07/25/13

Parameter	Result		Units
Acetophenone	100	J	ug/Kg
Aluminum	6360		mg/kg
Aluminum	7220		mg/kg
Arsenic	2.6		mg/kg
Arsenic	3.3		mg/kg
Barium	60.6		mg/kg
Barium	67.1		mg/kg
Benzo(a)anthracene	85	J	ug/Kg
Benzo(b)fluoranthene	70	J	ug/Kg
Beryllium	0.44	J	mg/kg
Beryllium	0.56	J	mg/kg
Calcium	29200		mg/kg
Calcium	30900		mg/kg
Chromium	10.4		mg/kg
Chromium	11.2		mg/kg
Chrysene	93	J	ug/kg
Copper	12.8		mg/kg
Copper	13.3		mg/kg
Di-n-butylphthalate	120	J	ug/Kg
Di-n-butylphthalate	140	J	ug/Kg
Fluoranthene	200	J	ug/Kg
Iron	11800		mg/kg
Iron	12900		mg/kg
Lead	9.9	J	mg/kg
Lead	11.1	J	mg/kg
Magnesium	7230		mg/kg
Magnesium	7720		mg/kg
Manganese	164	J	mg/kg
Manganese	173	J	mg/kg
Nickel	10.6		mg/kg
Nickel	11.6		mg/kg
Phenanthrene	180	J	ug/Kg
Potassium	599	J	mg/kg
Potassium	687	J	mg/kg
Pyrene	130	J	ug/kg
Selenium	0.48	J	mg/kg
Selenium	0.55	J	mg/kg
Silver	1.1	J	mg/kg
Silver	1.2	J	mg/kg
Sodium	231	J	mg/kg
Sodium	265	J	mg/kg
Vanadium	15.8		mg/kg
Vanadium	17.4		mg/kg
Zinc	48.3		mg/kg
Zinc	53.7		mg/kg
Acetophenone	96	J	ug/Kg
Aluminum	4510		mg/kg
Arsenic	2		mg/kg
Barium	39.9		mg/kg
Beryllium	0.32	J	mg/kg
Calcium	26500		mg/kg
Chromium	7.4		mg/kg
Copper	9.1		mg/kg
Di-n-butylphthalate	69	J	ug/Kg
Fluoranthene	99	J	ug/Kg
Iron	8310		mg/kg
Lead	7.4	J	mg/kg
Magnesium	5820		mg/kg
Manganese	101	J	mg/kg
Nickel	7.8		mg/kg
Potassium	398	J	mg/kg
Pyrene	77	J	ug/kg
Silver	0.75	J	mg/kg
Sodium	207	J	mg/kg
Vanadium	11.3		mg/kg
Zinc	36.5		mg/kg

CC-SD05 07/24/13

Parameter	Result		Units
Aluminum	1130		mg/kg
Arsenic	1.8		mg/kg
Barium	12.9	J	mg/kg
Beryllium	0.085	J	mg/kg
Bis(2-ethylhexyl)phthalate	70	J	ug/Kg
Butylbenzylphthalate	45	J	ug/Kg
Cadmium	0.14	J	mg/kg
Calcium	15400		mg/kg
Chromium	2.5		mg/kg
Cobalt	1.9	J	mg/kg
Copper	1.8	J	mg/kg
Iron	5330		mg/kg
Lead	2.6		mg/kg
Magnesium	5130		mg/kg
Manganese	198		mg/kg
Nickel	3.5	J	mg/kg
Selenium	0.64	J	mg/kg
Silver	0.45	J	mg/kg
Sodium	84.5	J	mg/kg
Vanadium	4.9	J	mg/kg
Zinc	10.7		mg/kg
Aluminum	8980		mg/kg
Antimony	0.32	J	mg/kg
Arsenic	5.6		mg/kg
Barium	10.5	J	mg/kg
Beryllium	0.38	J	mg/kg
Bis(2-ethylhexyl)phthalate	290		ug/Kg
Butylbenzylphthalate	50	J	ug/Kg
Cadmium	0.72		mg/kg
Calcium	44500		mg/kg
Chromium	14.3		mg/kg
Cobalt	10.9		mg/kg
Copper	14		mg/kg
Iron	23300		mg/kg
Lead	13		mg/kg
Magnesium	14300		mg/kg
Manganese	383		mg/kg
Nickel	26.1		mg/kg
Potassium	1780		mg/kg
Selenium	2.6	J	mg/kg
Silver	2		mg/kg
Sodium	231	J	mg/kg
Vanadium	9.7		mg/kg
Zinc	45.7		mg/kg

CC-SD06 07/24/13

Parameter	Result		Units
Aluminum	3170		mg/kg
Arsenic	2.4		mg/kg
Barium	56.2		mg/kg
Beryllium	0.29	J	mg/kg
Bis(2-ethylhexyl)phthalate	84	J	ug/Kg
Butylbenzylphthalate	50	J	ug/Kg
Cadmium	0.41	J	mg/kg
Calcium	62000		mg/kg
Chromium	6.8		mg/kg
Cobalt	3.9	J	mg/kg
Copper	4.3		mg/kg
Cyanide	0.31	J	mg/kg
Iron	8510		mg/kg
Lead	5.4		mg/kg
Magnesium	9590		mg/kg
Manganese	545		mg/kg
Nickel	7.5		mg/kg
Selenium	1.1	J	mg/kg
Silver	0.76	J	mg/kg
Sodium	102	J	mg/kg
Vanadium	10.3		mg/kg
Zinc	24.2		mg/kg
Aluminum	11900		mg/kg
Antimony	0.5	J	mg/kg
Arsenic	7.9		mg/kg
Barium	13.3	J	mg/kg
Beryllium	0.43	J	mg/kg
Butylbenzylphthalate	43	J	ug/Kg
Cadmium	0.98		mg/kg
Calcium	59600		mg/kg
Chromium	19.1		mg/kg
Cobalt	14.8		mg/kg
Copper	18.5		mg/kg
Iron	31200		mg/kg
Lead	17.3		mg/kg
Magnesium	19200		mg/kg
Manganese	514		mg/kg
Nickel	35.3		mg/kg
Potassium	2290		mg/kg
Selenium	3.3	J	mg/kg
Silver	2.7		mg/kg
Sodium	301	J	mg/kg
Vanadium	13		mg/kg
Zinc	60.3		mg/kg

CC-SD02 07/25/13

Parameter	Result		Units
Aluminum	1950		mg/kg
Arsenic	1.7		mg/kg
Barium	20.5		mg/kg
Benzo(a)anthracene	92	J	ug/Kg
Benzo(a)pyrene	95	J	ug/Kg
Benzo(b)fluoranthene	100	J	ug/Kg
Benzo(g,h,i)perylene	60	J	ug/Kg
Benzo(k)fluoranthene	67	J	ug/Kg
Beryllium	0.17	J	mg/kg
Calcium	15200		mg/kg
Chromium	3.9		mg/kg
Chrysene	100	J	ug/kg
Copper	3.4		mg/kg
Di-n-butylphthalate	55	J	ug/Kg
Fluoranthene	200	J	ug/Kg
Indeno(1,2,3-cd)pyrene	59	J	ug/Kg
Iron	6210		mg/kg
Lead	3.4	J	mg/kg
Magnesium	3760		mg/kg
Manganese	111	J	mg/kg
Nickel	3.9		mg/kg
Phenanthrene	59	J	ug/Kg
Potassium	166	J-	mg/kg
Pyrene	160	J	ug/kg
Silver	0.56	J	mg/kg
Sodium	147	J	mg/kg
Vanadium	7		mg/kg
Zinc	16.2		mg/kg
Acetone	6.7	J	ug/kg
Aluminum	2340		mg/kg
Arsenic	2		mg/kg
Barium	26.1		mg/kg
Beryllium	0.19	J	mg/kg
Calcium	14800		mg/kg
Chromium	4.9		mg/kg
Copper	4.4		mg/kg
Di-n-butylphthalate	60	J	ug/Kg
Iron	6440		mg/kg
Lead	4.2	J	mg/kg
Magnesium	3930		mg/kg
Manganese	117	J	mg/kg
Nickel	4.6		mg/kg
Potassium	198	J-	mg/kg
Selenium	0.4	J	mg/kg
Silver	0.57	J	mg/kg
Sodium	121	J	mg/kg
Vanadium	7.4		mg/kg
Zinc	23.1		mg/kg

Legend

- Locations with at least one detect
- Site Boundary

0 250 Feet

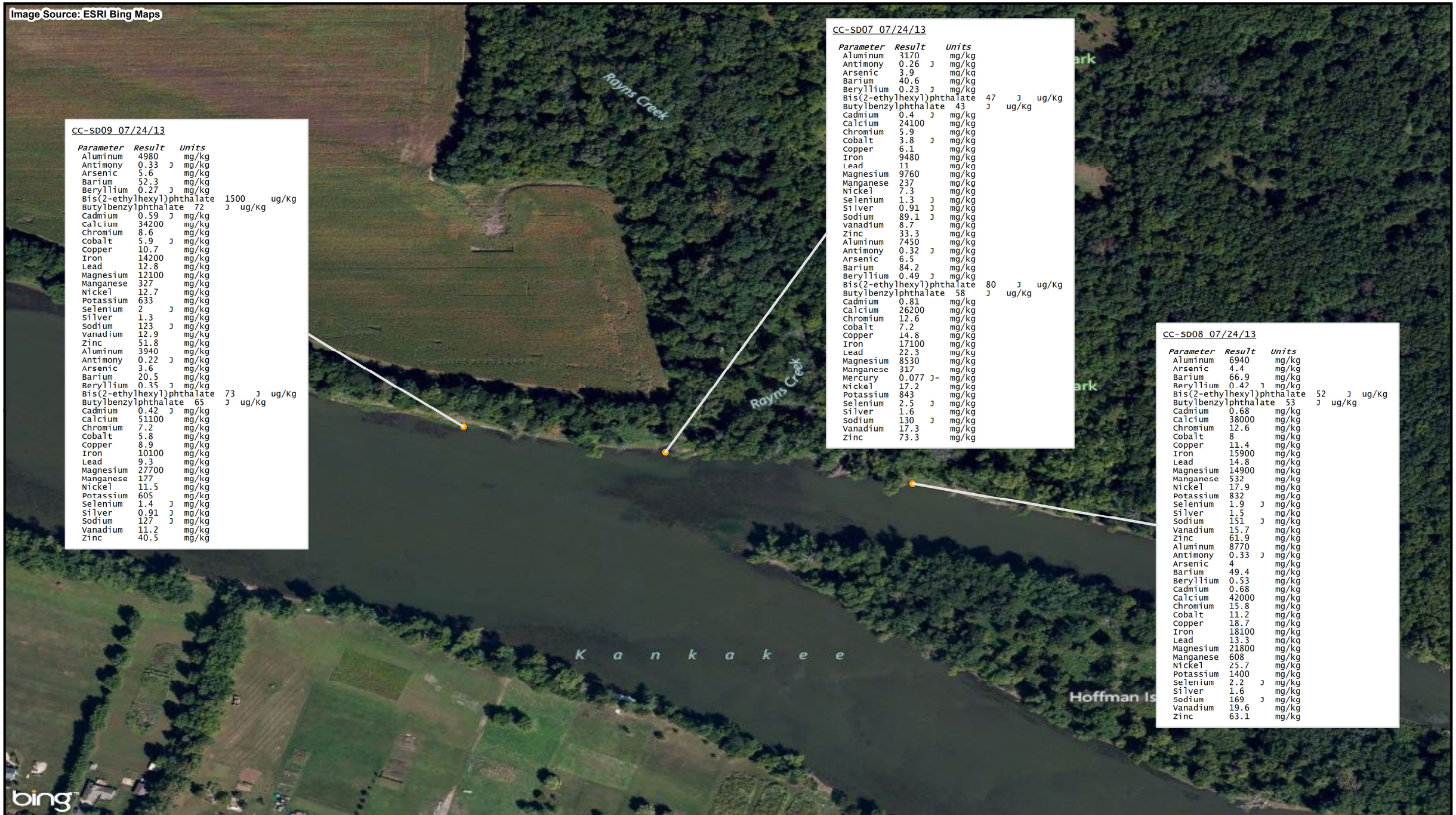
N

Prepared for:
U.S. EPA REGION V
Contract No.: EP-S5-06-04
TDD: S05-0008-1305-009
DCN: 2141-2A-BIMG

Prepared By:
WESTON SOLUTIONS, INC
750 E. Bunker Court
Suite 500
Vernon Hills, Illinois 60061

Figure 4-3
Detected Results in Rayns Creek Sediment Samples
Castle Construction Site
Wilmington, Will County, Illinois

FILE: D:\Castle_Construction\mxd\SI_Report\F4-3_SD_Rayne_Detects.mxd 12/4/2013 10:57:55 AM wojdakon



CC-SD09 07/24/13

Parameter	Result		Units
Aluminum	4980		mg/kg
Antimony	0.33	J	mg/kg
Arsenic	5.6		mg/kg
Barium	52.3		mg/kg
Beryllium	0.27	J	mg/kg
Bis(2-ethylhexyl)phthalate	1500		ug/Kg
Butylbenzylphthalate	72	J	ug/Kg
Cadmium	0.59	J	mg/kg
Calcium	34200		mg/kg
Chromium	8.6		mg/kg
Cobalt	5.9	J	mg/kg
Copper	10.7		mg/kg
Iron	14200		mg/kg
Lead	12.8		mg/kg
Magnesium	12100		mg/kg
Manganese	327		mg/kg
Nickel	12.7		mg/kg
Potassium	633		mg/kg
Selenium	2	J	mg/kg
Silver	1.3		mg/kg
Sodium	123	J	mg/kg
Vanadium	12.9		mg/kg
Zinc	51.8		mg/kg
Aluminum	3940		mg/kg
Antimony	0.22	J	mg/kg
Arsenic	3.6		mg/kg
Barium	20.5		mg/kg
Beryllium	0.35	J	mg/kg
Bis(2-ethylhexyl)phthalate	73	J	ug/Kg
Butylbenzylphthalate	65	J	ug/Kg
Cadmium	0.42	J	mg/kg
Calcium	51100		mg/kg
Chromium	7.2		mg/kg
Cobalt	5.8		mg/kg
Copper	8.9		mg/kg
Iron	10100		mg/kg
Lead	9.3		mg/kg
Magnesium	27700		mg/kg
Manganese	177		mg/kg
Nickel	11.5		mg/kg
Potassium	605		mg/kg
Selenium	1.4	J	mg/kg
Silver	0.91	J	mg/kg
Sodium	127	J	mg/kg
Vanadium	11.2		mg/kg
Zinc	40.5		mg/kg

CC-SD07 07/24/13

Parameter	Result		Units
Aluminum	3170		mg/kg
Antimony	0.26	J	mg/kg
Arsenic	3.9		mg/kg
Barium	40.6		mg/kg
Beryllium	0.23	J	mg/kg
Bis(2-ethylhexyl)phthalate	47	J	ug/Kg
Butylbenzylphthalate	43	J	ug/Kg
Cadmium	0.4	J	mg/kg
Calcium	24100		mg/kg
Chromium	5.9		mg/kg
Cobalt	3.8	J	mg/kg
Copper	6.1		mg/kg
Iron	9480		mg/kg
Lead	11		mg/kg
Magnesium	9760		mg/kg
Manganese	237		mg/kg
Nickel	7.3		mg/kg
Selenium	1.3	J	mg/kg
Silver	0.91	J	mg/kg
Sodium	89.1	J	mg/kg
Vanadium	8.7		mg/kg
Zinc	33.3		mg/kg
Aluminum	7450		mg/kg
Antimony	0.32	J	mg/kg
Arsenic	6.5		mg/kg
Barium	84.2		mg/kg
Beryllium	0.49	J	mg/kg
Bis(2-ethylhexyl)phthalate	80	J	ug/Kg
Butylbenzylphthalate	58	J	ug/Kg
Cadmium	0.81		mg/kg
Calcium	26200		mg/kg
Chromium	12.6		mg/kg
Cobalt	7.2		mg/kg
Copper	14.8		mg/kg
Iron	17100		mg/kg
Lead	22.3		mg/kg
Magnesium	8530		mg/kg
Manganese	317		mg/kg
Mercury	0.077	J-	mg/kg
Nickel	17.2		mg/kg
Potassium	843		mg/kg
Selenium	2.5	J	mg/kg
Silver	1.6		mg/kg
Sodium	130	J	mg/kg
Vanadium	17.3		mg/kg
Zinc	73.3		mg/kg

CC-SD08 07/24/13

Parameter	Result		Units
Aluminum	6940		mg/kg
Arsenic	4.4		mg/kg
Barium	66.9		mg/kg
Beryllium	0.42	J	mg/kg
Bis(2-ethylhexyl)phthalate	52	J	ug/Kg
Butylbenzylphthalate	53	J	ug/Kg
Cadmium	0.68		mg/kg
Calcium	38000		mg/kg
Chromium	12.6		mg/kg
Cobalt	8		mg/kg
Copper	11.4		mg/kg
Iron	15900		mg/kg
Lead	14.8		mg/kg
Magnesium	14900		mg/kg
Manganese	532		mg/kg
Nickel	17.9		mg/kg
Potassium	832		mg/kg
Selenium	1.9	J	mg/kg
Silver	1.5		mg/kg
Sodium	151	J	mg/kg
Vanadium	15.7		mg/kg
Zinc	61.9		mg/kg
Aluminum	8770		mg/kg
Antimony	0.33	J	mg/kg
Arsenic	4		mg/kg
Barium	49.4		mg/kg
Beryllium	0.53		mg/kg
Cadmium	0.68		mg/kg
Calcium	42000		mg/kg
Chromium	15.8		mg/kg
Cobalt	11.2		mg/kg
Copper	18.7		mg/kg
Iron	18100		mg/kg
Lead	13.3		mg/kg
Magnesium	21800		mg/kg
Manganese	608		mg/kg
Nickel	25.7		mg/kg
Potassium	1400		mg/kg
Selenium	2.2	J	mg/kg
Silver	1.6		mg/kg
Sodium	169	J	mg/kg
Vanadium	19.6		mg/kg
Zinc	63.1		mg/kg

Legend

- Locations with at least one detect
- Site Boundary

0 250 Feet

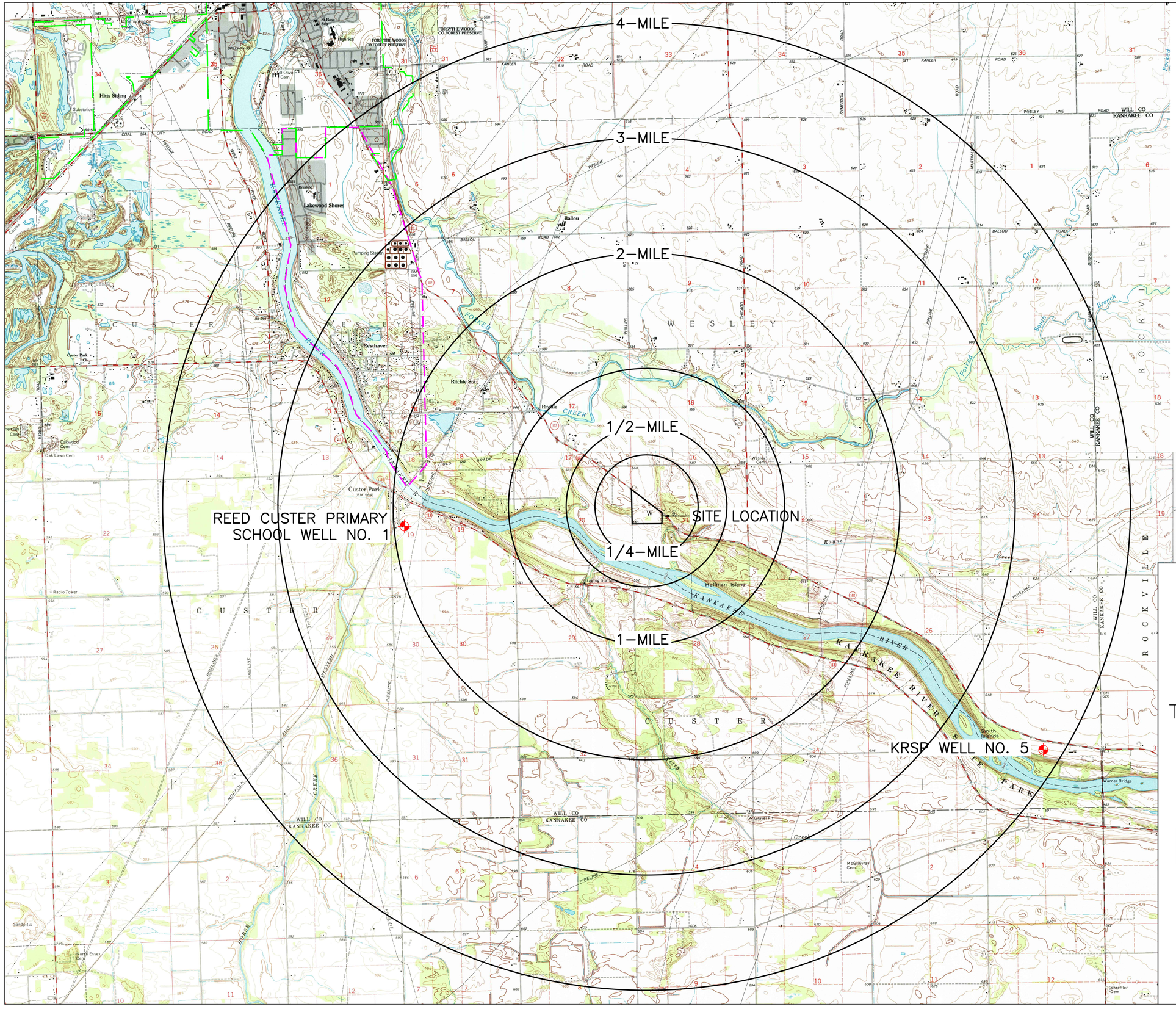
N

Prepared for:
U.S. EPA REGION V
Contract No.: EP-S5-06-04
TDD: S05-0008-1305-009
DCN: 2141-2A-BIMG

Prepared By:
WESTON SOLUTIONS, INC
750 E. Bunker Court
Suite 500
Vernon Hills, Illinois 60061

Figure 4-4
Detected Results in Kankakee River Sediment Samples
Castle Construction Site
Wilmington, Will County, Illinois

FILE: D:\Castle_Construction\mxd\SI_Report\F4-4_SD_Kankakee_Detects.mxd 12/4/2013 10:59:34 AM wojdakon



LEGEND

- CITY OF WILMINGTON
- LAKEWOOD SHORES BOUNDARY
- PUBLIC GROUNDWATER SUPPLY WELLS

FIGURE 5-1
4-MILE RADIUS MAP
CASTLE CONSTRUCTION SITE
WILMINGTON, WILL COUNTY, ILLINOIS

TDD NO: S05-0008-1305-009
DCN: 2141-2A-BIMG

WILMINGTON QUADRANGLE
ILLINOIS
7.5-MINUTE SERIES (TOPOGRAPHIC)

SYMERTON QUADRANGLE
ILLINOIS
7.5-MINUTE SERIES (TOPOGRAPHIC)

ESSEX QUADRANGLE
ILLINOIS
7.5 MINUTE SERIES (TOPOGRAPHIC)
NW/4 HERSCHER 15' QUADRANGLE

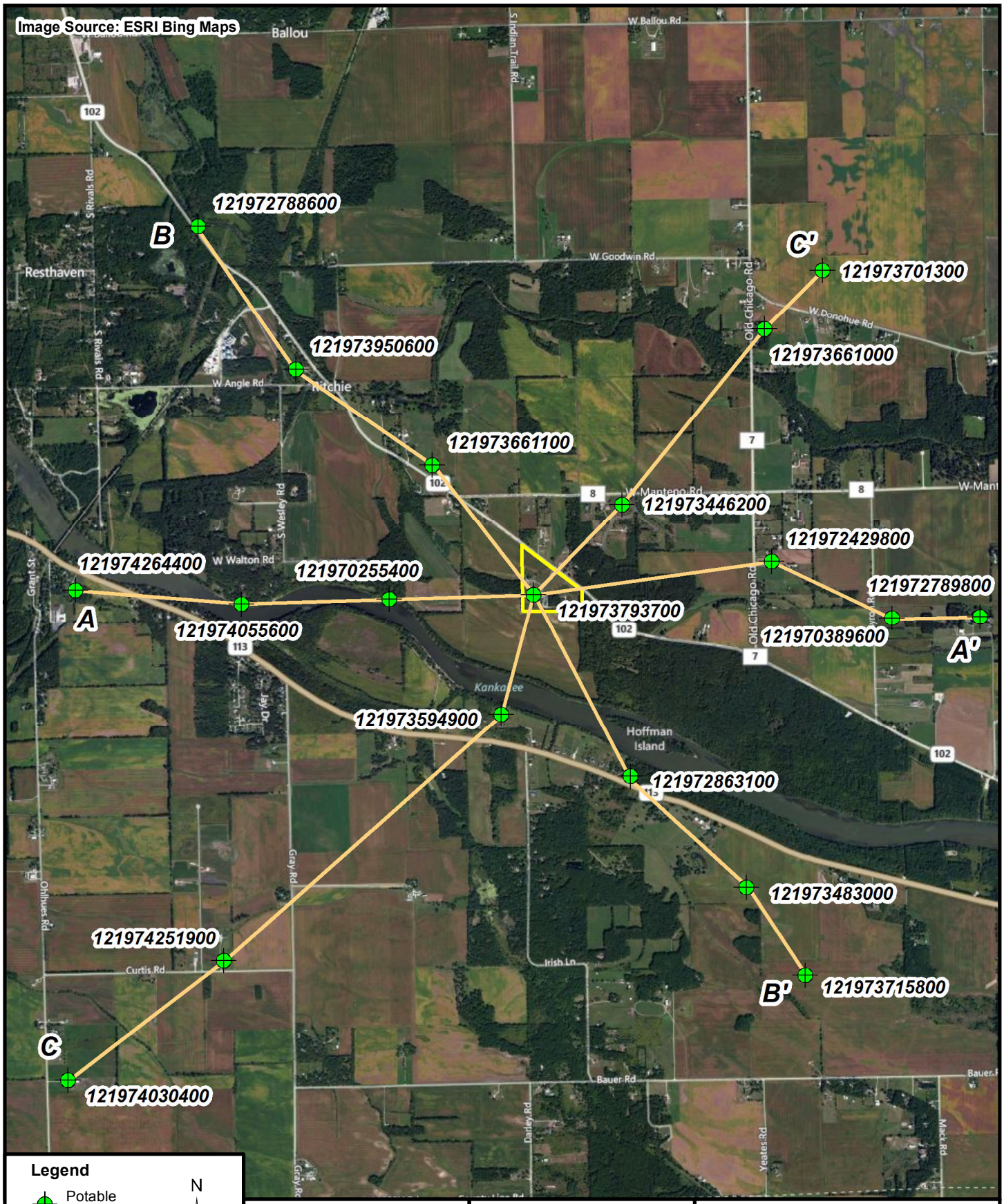
BONFIELD QUADRANGLE
ILLINOIS
7.5 MINUTE SERIES (TOPOGRAPHIC)
NE/4 HERSCHER 15' QUADRANGLE

N

MILES
FEET
KILOMETERS
METERS

ILLINOIS
QUADRANGLE LOCATION

DRAWN BY: DAVID HERNANDEZ
WESTON SOLUTIONS, INC.
APPROVED BY: OM PATEL
WESTON SOLUTIONS, INC.
DATE: DECEMBER 30, 2013



Legend

- Potable Water Well
- Cross Section
- Site Boundary

N

0 4,000 Feet

Prepared For:
U.S. EPA REGION V

Contract No.: EP-S5-06-04
TDD: S05-0008-1305-009
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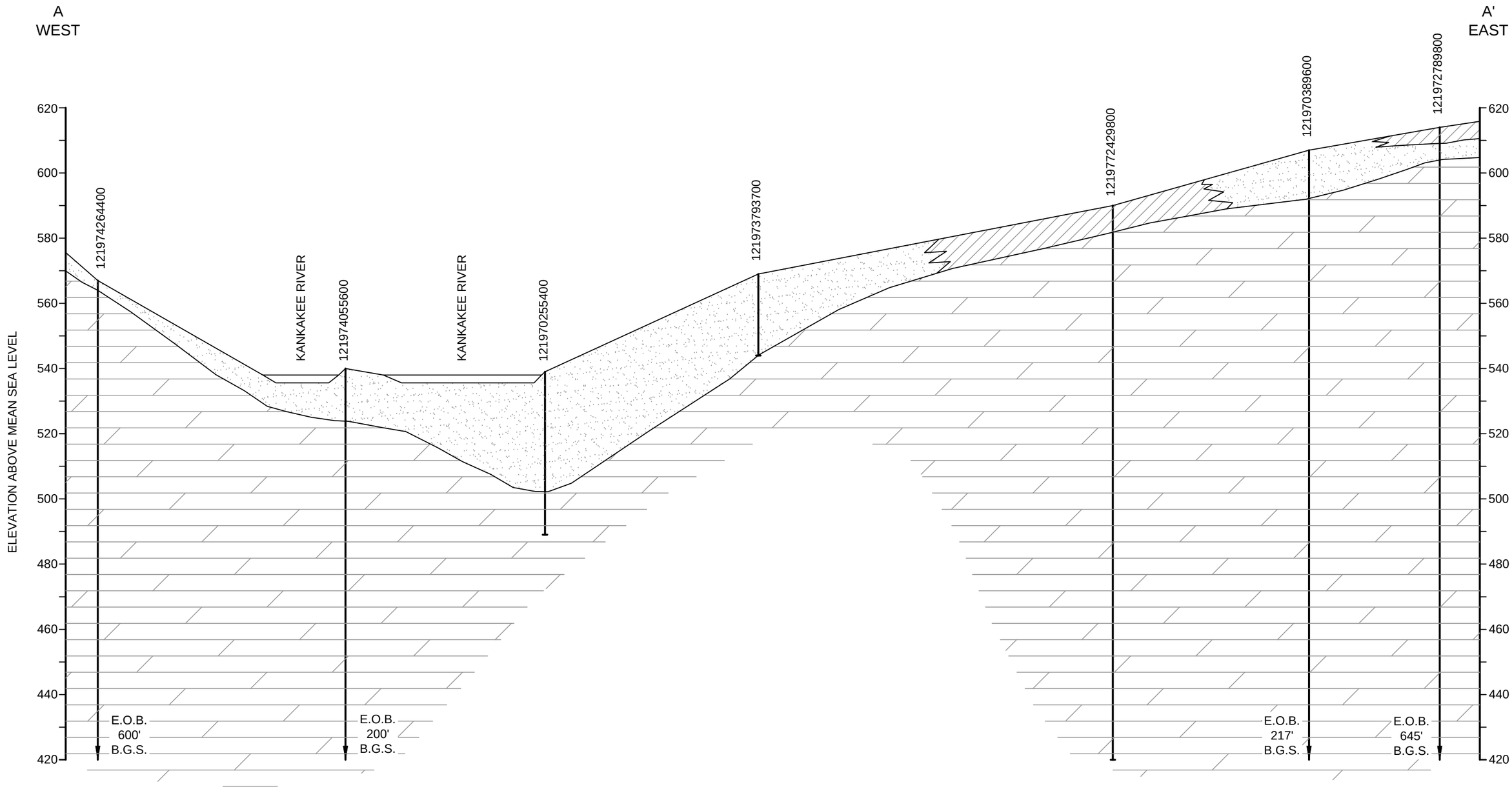
750 E Bunker Ct.
Suite 500
Vernon Hills, IL 60061

Figure 5-2
Cross Section Location Map
Castle Construction Site
Wilmington, Will County, Illinois

FILE: D:\Castle_Construction\mxd\F5-2_Site_Features.mxd 9/26/2013 12:38:09 PM wojdakon

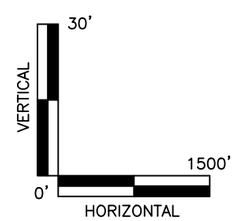


LEGEND

- SAND AND/OR GRAVEL
- CLAY
- BEDROCK

B.G.S. BELOW GROUND SURFACE

E.O.B. END OF BORING



NOTE:
THE STRATIGRAPHY REPRESENTED IN THIS CROSS SECTION IS GENERALIZED FROM WATER WELL LOGS COMPILED BY THE ILLINOIS STATE GEOLOGICAL SURVEY. THE WATER WELL LOGS ARE SUBMITTED BY DRILLING FIRMS AND ARE NOT COMPLETED BY A GEOLOGIST. THEREFORE, THE SUBSURFACE STRATIGRAPHY MAY NOT BE REPRESENTATIVE OF ACTUAL GEOLOGIC CONDITIONS.

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Contract No: EP-S5-06-04
TDD NO: S05-0008-1305-009
DCN: 2141-2A-BIMG

Prepared By:
WESTON SOLUTIONS, INC
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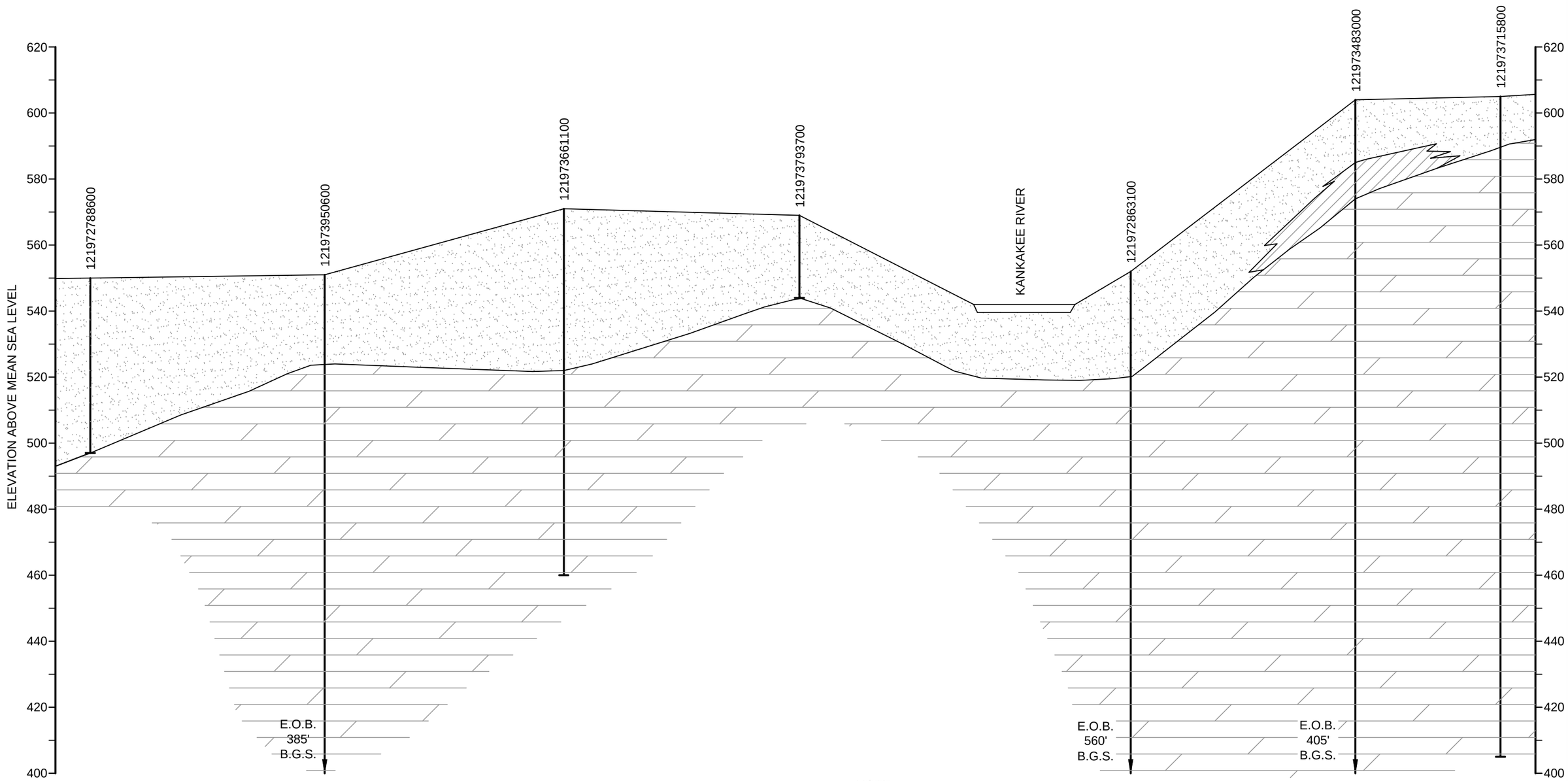
Suite 500
Vernon Hills, IL 60061

Figure 5-3
Geologic Cross Section A-A'
Castle Construction Site
Wilmington, Will County, Illinois

J:\CAD93\000\00413.dwg, 12/30/2013 10:24:30 AM



NOTE:
THE STRATIGRAPHY REPRESENTED IN THIS CROSS SECTION IS GENERALIZED FROM WATER WELL LOGS COMPILED BY THE ILLINOIS STATE GEOLOGICAL SURVEY. THE WATER WELL LOGS ARE SUBMITTED BY DRILLING FIRMS AND ARE NOT COMPLETED BY A GEOLOGIST. THEREFORE, THE SUBSURFACE STRATIGRAPHY MAY NOT BE REPRESENTATIVE OF ACTUAL GEOLOGIC CONDITIONS.

LEGEND

- SAND AND/OR GRAVEL
- CLAY
- BEDROCK

B.G.S. BELOW GROUND SURFACE

E.O.B. END OF BORING

VERTICAL: 0' – 30'

HORIZONTAL: 0' – 1500'

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Contract No: EP-S5-06-04
TDD NO: S05-0008-1305-009
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Prepared By:
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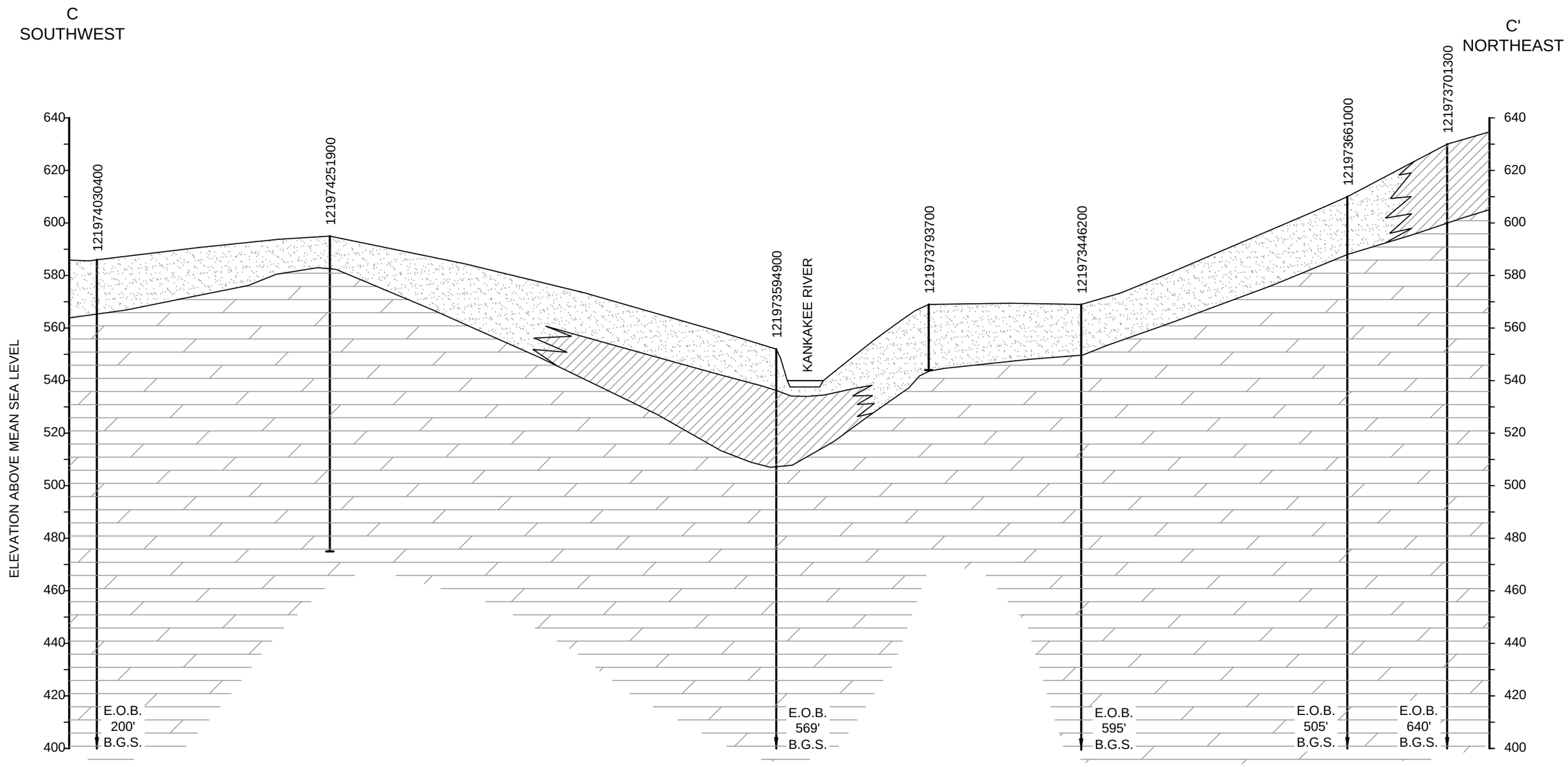
750 E. Bunker Ct.
Suite 500
Vernon Hills, IL 60061

Figure 5-4
Geologic Cross Section B-B'
Castle Construction Site
Wilmington, Will County, Illinois

J:\CAD93\000\00413.dwg, 12/30/2013 10:23:37 AM

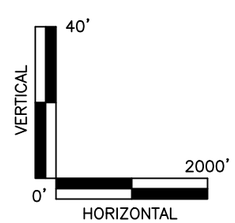


LEGEND

- SAND AND/OR GRAVEL
- CLAY
- BEDROCK

B.G.S. BELOW GROUND SURFACE

E.O.B. END OF BORING



NOTE:
THE STRATIGRAPHY REPRESENTED IN THIS CROSS SECTION IS GENERALIZED FROM WATER WELL LOGS COMPILED BY THE ILLINOIS STATE GEOLOGICAL SURVEY. THE WATER WELL LOGS ARE SUBMITTED BY DRILLING FIRMS AND ARE NOT COMPLETED BY A GEOLOGIST. THEREFORE, THE SUBSURFACE STRATIGRAPHY MAY NOT BE REPRESENTATIVE OF ACTUAL GEOLOGIC CONDITIONS.

Prepared for:
U.S. EPA. REGION V
Contract No: EP-S5-06-04
TDD NO: S05-0008-1305-009
DCN: 2141-2A-BIMG

Prepared By:
WESTON SOLUTIONS, INC
750 E. Bunker Ct.
Suite 500
Vernon Hills, IL 60061

Figure 5-5
Geologic Cross Section C-C'
Castle Construction Site
Wilmington, Will County, Illinois

J:\CAD93\000\00413.dwg, 12/30/2013 10:23:09 AM

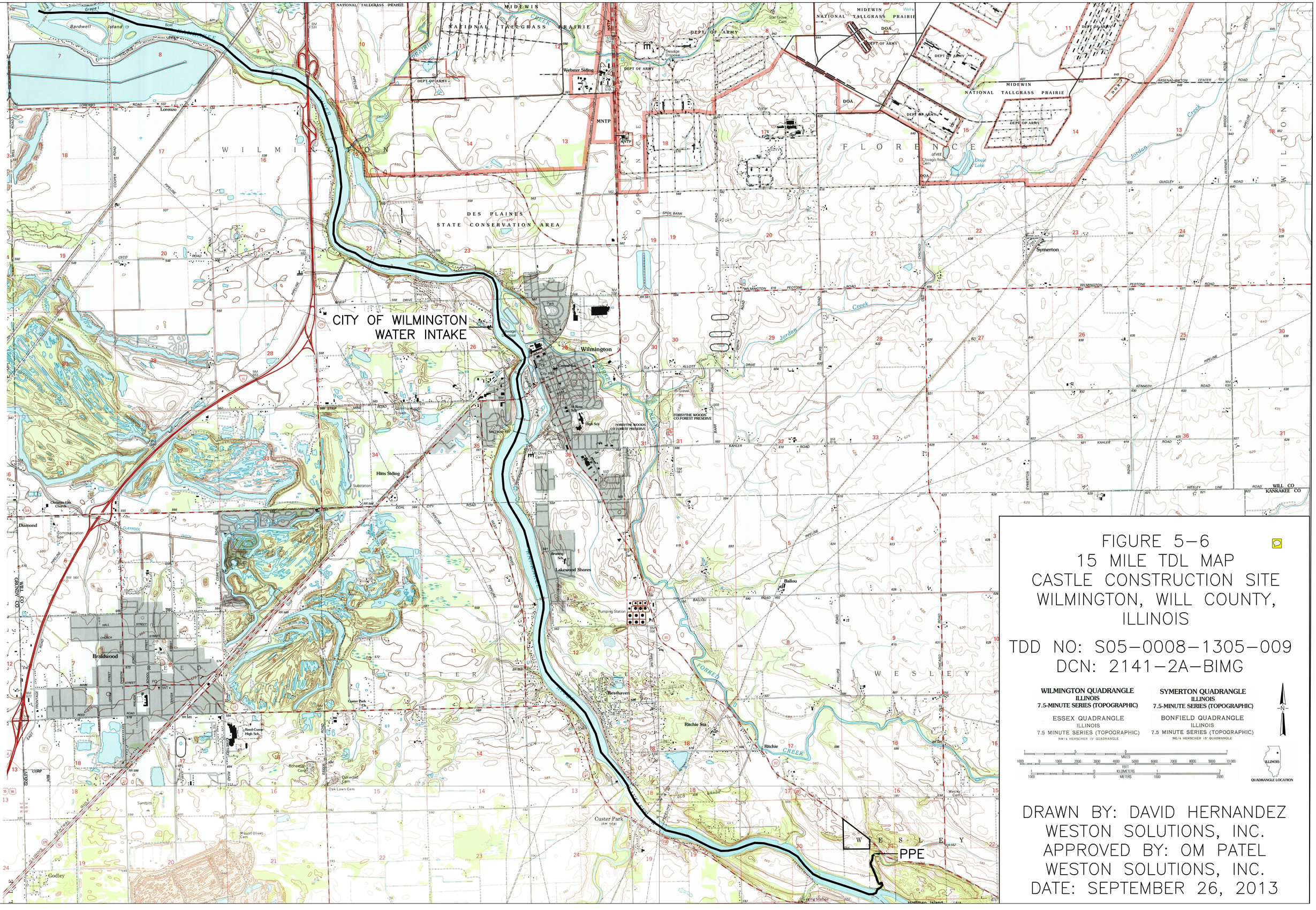


FIGURE 5-6
15 MILE TDL MAP
CASTLE CONSTRUCTION SITE
WILMINGTON, WILL COUNTY, ILLINOIS

TDD NO: S05-0008-1305-009
DCN: 2141-2A-BIMG

WILMINGTON QUADRANGLE
ILLINOIS
7.5-MINUTE SERIES (TOPOGRAPHIC)

ESSEX QUADRANGLE
ILLINOIS
7.5 MINUTE SERIES (TOPOGRAPHIC)
NW/4 HERSCHER 15' QUADRANGLE

SYMERTON QUADRANGLE
ILLINOIS
7.5-MINUTE SERIES (TOPOGRAPHIC)

BONFIELD QUADRANGLE
ILLINOIS
7.5 MINUTE SERIES (TOPOGRAPHIC)
NE/4 HERSCHER 15' QUADRANGLE

N

MILES
FEET
KILOMETERS
METERS

ILLINOIS
QUADRANGLE LOCATION

DRAWN BY: DAVID HERNANDEZ
WESTON SOLUTIONS, INC.
APPROVED BY: OM PATEL
WESTON SOLUTIONS, INC.
DATE: SEPTEMBER 26, 2013

TABLES

TABLE 4-1
SOIL SAMPLE RESULTS SUMMARY TABLE
CASTLE CONSTRUCTION SITE
WILMINGTON, WILL COUNTY, ILLINOIS

Chemical Name[1]	CRQL	Reference Dose Screening Concentration	Cancer Risk Screening Concentration	Location ID	CC-SO01	CC-SO02	CC-SO08	CC-SO12
				Field Sample ID	CC-SO01-(0-12) - 072413	CC-SO02-(0-12) - 072413	CC-SO08-(12-24) - 072313	CC-SO12-(0-12) - 072313
				Sampling Date	7/24/2013	7/24/2013	7/23/2013	7/23/2013
				Depth Interval (inches bgs)	0-12	0-12	12-24	0-12
				Unit				
Inorganics								
Aluminum	20	-	-	mg/kg	4760	4860	8520	4300
Antimony	6	31	-	mg/kg	0.21 J	0.17 J	1.5 J	6 U
Arsenic	1	23	0.43	mg/kg	**3.9**	**3.4**	**19**	**3.8**
Barium	20	5500	-	mg/kg	81.3	71.7	240	54.1
Beryllium	0.5	160	-	mg/kg	0.33 J	0.28 J	0.83	0.26 J
Cadmium	0.5	39	-	mg/kg	0.42	0.5 U	2.3	0.5 U
Calcium	500	-	-	mg/kg	58400	2030	12100	1680
Chromium	1	230	-	mg/kg	7	7.2	13	7.6
Cobalt	5	-	-	mg/kg	5.7	5 U	20.2	5 U
Copper	2.5	-	-	mg/kg	9.5	6.7	12.5	6.4
Cyanide	0.5	7800	-	mg/kg	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ
Iron	10	-	-	mg/kg	9390	8220	47800	9190
Lead	1	-	-	mg/kg	13	14.7	34.5	14
Magnesium	500	-	-	mg/kg	34000	1550	7280	883
Manganese	1.5	11000	-	mg/kg	649	513	4370	262
Nickel	4	1600	-	mg/kg	7.6	5.5	28.4	5.9
Potassium	500	-	-	mg/kg	1180	819	799	429
Selenium	3.5	390	-	mg/kg	0.9 J	1.1 J	4.1	1.3 J
Silver	1	390	-	mg/kg	0.85	0.78 J	4.5	0.87
Sodium	500	-	-	mg/kg	154 J	85.9 J	215 J	82.4 J
Vanadium	5	-	-	mg/kg	14	13.7	25.5	11.9
Zinc	6	23000	-	mg/kg	69.1	37	35.1	31.5
SVOCs								
Bis(2-ethylhexyl)phthalate	170	1600000	46000	µg/kg	170 U	170 U	170 U	170 U
Butylbenzylphthalate	170	16000000	-	µg/kg	170 U	170 U	170 U	170 U

Notes:

[1]Only detected chemical constituents presented

Bold, highlighted concentrations exceed the SCDM Cancer Risk Screening Concentration benchmark.

- = No SCDM benchmark exists
µg/kg = Microgram per kilogram
bgs = Below ground surface
CRQL = Contract Required Quantitat
ID = Identification
J = Concentration estimated
J - = Concentration estimated and biased low
SCDM = Superfund Chemical Data Matrix
SVOC = Semivolatile organic compound
U = Constituent not detected at indicated reporting limit

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TABLE 4-1
SOIL SAMPLE RESULTS SUMMARY TABLE
CASTLE CONSTRUCTION SITE
WILMINGTON, WILL COUNTY, ILLINOIS

Chemical Name[1]	CRQL	Reference Dose Screening Concentration	Cancer Risk Screening Concentration	Location ID	CC-SO13		CC-SO14	CC-SO15
				Field Sample ID	CC-S013-(0-12) -072413	CC-SO13-(0-12) -072413D	CC-S014-(0-12) -072413	CC-SO15-(0-12) -072513
				Sampling Date	7/24/2013	7/24/2013	7/24/2013	7/25/2013
				Depth Interval (inches bgs)	0-12	0-12	0-12	0-12
				Unit				
Inorganics								
Aluminum	20	-	-	mg/kg	3450	3530	1910	2590
Antimony	6	31	-	mg/kg	0.28 J	6 U	6 U	0.2 J
Arsenic	1	23	0.43	mg/kg	**2.7**	**2.6**	**1.2**	**1.7**
Barium	20	5500	-	mg/kg	57.2	59.5	23.2	53
Beryllium	0.5	160	-	mg/kg	0.21 J	0.22 J	0.048 J	0.21 J
Cadmium	0.5	39	-	mg/kg	0.5 U	0.5 U	0.11 J	0.5 U
Calcium	500	-	-	mg/kg	1770	1840	1720	605
Chromium	1	230	-	mg/kg	5.6	5.5	3	4.5
Cobalt	5	-	-	mg/kg	5 U	5 U	1.1 J	5 U
Copper	2.5	-	-	mg/kg	12.1	11.9	3.3	3.1
Cyanide	0.5	7800	-	mg/kg	0.5 UJ	0.5 UJ	0.5 UJ	0.16 J
Iron	10	-	-	mg/kg	7510	7380	3620	5120
Lead	1	-	-	mg/kg	13	13.2	5.8	8.1 J
Magnesium	500	-	-	mg/kg	840	895	867	475
Manganese	1.5	11000	-	mg/kg	206	252	75.6	660 J
Nickel	4	1600	-	mg/kg	4.2	4.3	2.4 J	3.7
Potassium	500	-	-	mg/kg	527	540	500 U	129 J-
Selenium	3.5	390	-	mg/kg	1.2 J	1.1 J	0.41 J	3.5 U
Silver	1	390	-	mg/kg	0.72 J	0.72 J	0.32 J	0.48 J
Sodium	500	-	-	mg/kg	67.2 J	63.9 J	50.3 J	53.3 J
Vanadium	5	-	-	mg/kg	10.2	10.1	4.4	6.2
Zinc	6	23000	-	mg/kg	39.9	39.1	20.6	24.6
SVOCs								
Bis(2-ethylhexyl)phthalate	170	1600000	46000	µg/kg	38 J	38 J	170 U	170 U
Butylbenzylphthalate	170	16000000	-	µg/kg	41 J	38 J	170 U	170 U

Notes:

[1]Only detected chemical constituents presented

Bold, highlighted concentrations exceed the SCDM Cancer Risk Screening Concentration benchmark.

- = No SCDM benchmark exists
µg/kg = Microgram per kilogram
bgs = Below ground surface
CRQL = Contract Required Quantitation Limit
ID = Identification
J = Concentration estimated
J - = Concentration estimated and biased low
SCDM = Superfund Chemical Data Matrix
SVOC = Semivolatile organic compound
U = Constituent not detected at indicated reporting limit

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TABLE 4-2
SOIL BACKGROUND COMPARSION TABLE
CASTLE CONSTRUCTION SITE
WILMINGTON, WILL COUNTY, ILLINOIS

Chemical Name	CRQL	Background Maximum	3x Background Maximum	Location ID	CC-SO15	CC-SO01	CC-SO02	CC-SO08
				Field Sample ID	CC-SO15-(0-12)-072513	CC-SO01-(0-12)-072413	CC-SO02-(0-12)-072413	CC-SO08-(12-24)-072313
				Sampling Date	7/25/2013	7/24/2013	7/24/2013	7/23/2013
				Depth (inches bgs)	0-12	0-12	0-12	12-24
				Unit	Background	Investigative	Investigative	Investigative
Inorganics								
Aluminum	200	2590	7770	mg/kg	2590	4760	4860	**8520**
Antimony	1	0.2	0.6	mg/kg	0.2 J	0.21 J	0.17 J	**1.5 J**
Arsenic	5	1.7	5.1	mg/kg	1.7	3.9	3.4	**19**
Barium	20	53	159	mg/kg	53	81.3	71.7	**240**
Beryllium	0.5	0.21	0.63	mg/kg	0.21 J	0.33 J	0.28 J	**0.83**
Cadmium	0.5	ND	ND	mg/kg	0.5 U	0.42	0.5 U	**2.3**
Calcium	500	605	1815	mg/kg	605	**58400**	**2030**	**12100**
Cobalt	5	ND	ND	mg/kg	5 U	**5.7**	5 U	**20.2**
Copper	2.5	3.1	9.3	mg/kg	3.1	**9.5**	6.7	**12.5**
Iron	10	5120	15360	mg/kg	5120	9390	8220	**47800**
Lead	1	8.1	24.3	mg/kg	8.1 J	13	14.7	**34.5**
Magnesium	500	475	1425	mg/kg	475	**34000**	**1550**	**7280**
Manganese	1.5	660	1980	mg/kg	660 J	649	513	**4370**
Nickel	4	3.7	11.1	mg/kg	3.7	7.6	5.5	**28.4**
Potassium	500	129	387	mg/kg	129 J-	**1180**	**819**	**799**
Selenium	3.5	ND	ND	mg/kg	3.5 U	0.9 J	1.1 J	**4.1**
Silver	1	0.48	1.44	mg/kg	0.48 J	0.85	0.78 J	**4.5**
Sodium	500	53.3	159.9	mg/kg	53.3 J	154 J	85.9 J	**215 J**
Vanadium	5	6.2	18.6	mg/kg	6.2	14	13.7	**25.5**
SVOCs								
Bis(2-ethylhexyl)phthalate	170	ND	ND	µg/kg	170 U	170 U	170 U	170 U
Butylbenzylphthalate	170	ND	ND	µg/kg	170 U	170 U	170 U	170 U

Notes:

Bold, highlighted concentrations exceed three times maximum background concentrations

Bold, highlighted concentrations exceeded the CRQL [(background was non-detect (ND)]

µg/kg = Microgram per kilogram
bgs = Below ground surface
CRQL = Contract Required Quantitation Limit
ID = Identification
J = Concentration estimated
J - = Concentration estimated and biased low
mg/kg = Milligram per kilogram
ND = Not detected
SVOC = Semivolatile organic compound
U = Constituent not detected at indicated reporting limit

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TABLE 4-2
SOIL BACKGROUND COMPARSION TABLE
CASTLE CONSTRUCTION SITE
WILMINGTON, WILL COUNTY, ILLINOIS

Chemical Name	CRQL	Background Maximum	3x Background Maximum	Location ID	CC-SO12	CC-SO13		CC-SO14
				Field Sample ID	CC-SO12-(0-12)-072313	CC-S013-(0-12)-072413	CC-SO13-(0-12)-072413D	CC-S014-(0-12)-072413
				Sampling Date	7/23/2013	7/24/2013	7/24/2013	7/24/2013
				Depth (inches bgs)	0-12	0-12	0-12	0-12
				Unit	Investigative	Investigative	Investigative	Investigative
Inorganics								
Aluminum	200	2590	7770	mg/kg	4300	3450	3530	1910
Antimony	1	0.2	0.6	mg/kg	6 U	0.28 J	6 U	6 U
Arsenic	5	1.7	5.1	mg/kg	3.8	2.7	2.6	1.2
Barium	20	53	159	mg/kg	54.1	57.2	59.5	23.2
Beryllium	0.5	0.21	0.63	mg/kg	0.26 J	0.21 J	0.22 J	0.048 J
Cadmium	0.5	ND	ND	mg/kg	0.5 U	0.5 U	0.5 U	0.11 J
Calcium	500	605	1815	mg/kg	1680	1770	**1840**	1720
Cobalt	5	ND	ND	mg/kg	5 U	5 U	5 U	1.1 J
Copper	2.5	3.1	9.3	mg/kg	6.4	**12.1**	**11.9**	3.3
Iron	10	5120	15360	mg/kg	9190	7510	7380	3620
Lead	1	8.1	24.3	mg/kg	14	13	13.2	5.8
Magnesium	500	475	1425	mg/kg	883	840	895	867
Manganese	1.5	660	1980	mg/kg	262	206	252	75.6
Nickel	4	3.7	11.1	mg/kg	5.9	4.2	4.3	2.4 J
Potassium	500	129	387	mg/kg	**429**	**527**	**540**	500 U
Selenium	3.5	ND	ND	mg/kg	1.3 J	1.2 J	1.1 J	0.41 J
Silver	1	0.48	1.44	mg/kg	0.87	0.72 J	0.72 J	0.32 J
Sodium	500	53.3	159.9	mg/kg	82.4 J	67.2 J	63.9 J	50.3 J
Vanadium	5	6.2	18.6	mg/kg	11.9	10.2	10.1	4.4
SVOCs								
Bis(2-ethylhexyl)phthalate	170	ND	ND	µg/kg	170 U	38 J	38 J	170 U
Butylbenzylphthalate	170	ND	ND	µg/kg	170 U	41 J	38 J	170 U

Notes:

Bold, highlighted concentrations exceed three times maximum background concentrations

Bold, highlighted concentrations exceeded the CRQL [(background was non-detect (ND)]

µg/kg = Microgram per kilogram
bgs = Below ground surface
CRQL = Contract Required Quantitation Limit
ID = Identification
J = Concentration estimated
J - = Concentration estimated and biased low
mg/kg = Milligram per kilogram
ND = Not detected
SVOC = Semivolatile organic compound
U = Constituent not detected at indicated reporting limit

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TABLE 4-3
SEDIMENT SAMPLE RESULTS SUMMARY TABLE
CASTLE CONSTRUCTION SITE
WILMINGTON, WILL COUNTY, ILLINOIS

		Location ID	CC-SD01 (Rayns Creek)			CC-SD02 (Rayns Creek)	
		Field Sample ID	CC-SD01-(0-6) - 072513	CC-SD01-(0-6) - 072513D	CC-SD01-(6-12) - 072513	CC-SD02-(0-6) - 072513	CC-SD02-(6-12) - 072513
		Sampling Date	7/25/2013	7/25/2013	7/25/2013	7/25/2013	7/25/2013
		Depth Interval (inches bss)	0-6	0-6	6-12	0-6	6-12
Chemical Name[1]	CRQL	Unit	Background	Background	Background	Background	Background
Inorganics							
Aluminum	20	mg/kg	6360	7220	4510	1950	2340
Antimony	6	mg/kg	6 U	6 U	6 U	6 U	6 U
Arsenic	1	mg/kg	2.6	3.3	2	1.7	2
Barium	20	mg/kg	60.6	67.1	39.9	20.5	26.1
Beryllium	0.5	mg/kg	0.44 J	0.56 J	0.32 J	0.17 J	0.19 J
Cadmium	0.5	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Calcium	500	mg/kg	29200	30900	26500	15200	14800
Chromium	1	mg/kg	10.4	11.2	7.4	3.9	4.9
Cobalt	5	mg/kg	5 U	5 U	5 U	5 U	5 U
Copper	2.5	mg/kg	12.8	13.3	9.1	3.4	4.4
Cyanide	0.5	mg/kg	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ
Iron	10	mg/kg	11800	12900	8310	6210	6440
Lead	1	mg/kg	9.9 J	11.1 J	7.4 J	3.4 J	4.2 J
Magnesium	500	mg/kg	7230	7720	5820	3760	3930
Manganese	1.5	mg/kg	164 J	173 J	101 J	111 J	117 J
Mercury	0.1	mg/kg	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Nickel	4	mg/kg	10.6	11.6	7.8	3.9	4.6
Potassium	500	mg/kg	599 J	687 J	398 J	166 J-	198 J-
Selenium	3.5	mg/kg	0.48 J	0.55 J	3.5 U	3.5 U	0.4 J
Silver	1	mg/kg	1.1 J	1.2 J	0.75 J	0.56 J	0.57 J
Sodium	500	mg/kg	231 J	265 J	207 J	147 J	121 J
Vanadium	5	mg/kg	15.8	17.4	11.3	7	7.4
Zinc	6	mg/kg	48.3	53.7	36.5	16.2	23.1
SVOCs							
Acetophenone	170	µg/kg	170 U	100 J	96 J	170 U	170 U
Benzo(a)anthracene	170	µg/kg	85 J	170 U	170 U	92 J	170 U
Benzo(a)pyrene	170	µg/kg	170 U	170 U	170 U	95 J	170 U
Benzo(b)fluoranthene	170	µg/kg	70 J	170 U	170 U	100 J	170 U
Benzo(g,h,i)perylene	170	µg/kg	170 U	170 U	170 U	60 J	170 U
Benzo(k)fluoranthene	170	µg/kg	170 U	170 U	170 U	67 J	170 U
Bis(2-ethylhexyl)phthalate	170	µg/kg	170 U	170 U	170 U	170 U	170 U
Butylbenzylphthalate	170	µg/kg	170 U	170 U	170 U	170 U	170 U

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TABLE 4-3
SEDIMENT SAMPLE RESULTS SUMMARY TABLE
CASTLE CONSTRUCTION SITE
WILMINGTON, WILL COUNTY, ILLINOIS

		Location ID	CC-SD01 (Rayns Creek)			CC-SD02 (Rayns Creek)	
		Field Sample ID	CC-SD01-(0-6) - 072513	CC-SD01-(0-6) - 072513D	CC-SD01-(6-12) - 072513	CC-SD02-(0-6) - 072513	CC-SD02-(6-12) - 072513
		Sampling Date	7/25/2013	7/25/2013	7/25/2013	7/25/2013	7/25/2013
		Depth Interval (inches bss)	0-6	0-6	6-12	0-6	6-12
Chemical Name[1]	**CRQL**	**Unit**	**Background**	**Background**	**Background**	**Background**	**Background**
Chrysene	170	µg/kg	93 J	170 U	170 U	100 J	170 U
Di-n-butylphthalate	170	µg/kg	120 J	140 J	69 J	55 J	60 J
Fluoranthene	170	µg/kg	200 J	170 U	99 J	200 J	170 U
Indeno(1,2,3-cd)pyrene	170	µg/kg	170 U	170 U	170 U	59 J	170 U
Phenanthrene	170	µg/kg	180 J	170 U	170 U	59 J	170 U
Pyrene	170	µg/kg	130 J	170 U	77 J	160 J	170 U
VOCs							
Acetone	10	µg/kg	10 U	10 U	10 U	10 U	6.7 J

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TABLE 4-3
SEDIMENT SAMPLE RESULTS SUMMARY TABLE
CASTLE CONSTRUCTION SITE
WILMINGTON, WILL COUNTY, ILLINOIS

		Location ID	CC-SD03 (Rayns Creek)		CC-SD04 (Rayns Creek)		
		Field Sample ID	CC-SD03-(0-6) - 072513	CC-SD03-(6-12) - 072513	CC-SD04-(0-6) - 072513	CC-SD04-(0-6) - 072513D	CC-SD04-(6-12) - 072513
		Sampling Date	7/25/2013	7/25/2013	7/25/2013	7/25/2013	7/25/2013
		Depth Interval (inches bss)	0-6	6-12	0-6	0-6	6-12
Chemical Name[1]	**CRQL**	**Unit**	**Downstream**	**Downstream**	**Downstream**	**Downstream**	**Downstream**
Inorganics							
Aluminum	20	mg/kg	1850	2380	1860	1760	1930
Antimony	6	mg/kg	6 U	6 U	6 U	0.51 J	6 U
Arsenic	1	mg/kg	2.6	2.4	3.1	8.8	3.8
Barium	20	mg/kg	20 U	20 U	20 U	40.6	20 U
Beryllium	0.5	mg/kg	0.17 J	0.19 J	0.21 J	0.5 U	0.19 J
Cadmium	0.5	mg/kg	0.5 U	0.5 U	0.5 U	0.53	0.5 U
Calcium	500	mg/kg	15100	26000	29000	25100	41200
Chromium	1	mg/kg	3.9	4.9	4	3.7	4.9
Cobalt	5	mg/kg	2.3 J	2.7 J	2.2 J	7	2.8 J
Copper	2.5	mg/kg	2.8	3.7	2 J	0.97 J	1.9 J
Cyanide	0.5	mg/kg	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ
Iron	10	mg/kg	6170	7060	8610	21600	9210
Lead	1	mg/kg	3.5 J	4.5 J	4.4 J	6.4 J	4.9 J
Magnesium	500	mg/kg	4930	6670	12300	10200	18600
Manganese	1.5	mg/kg	83.3 J	133 J	175 J	799 J	269 J
Mercury	0.1	mg/kg	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Nickel	4	mg/kg	4.1 J	6.1	4.2 J	7.7	4.9
Potassium	500	mg/kg	186 J-	329 J	171 J-	220 J	231 J
Selenium	3.5	mg/kg	3.5 U	3.5 U	3.5 U	3.5 U	3.5 U
Silver	1	mg/kg	0.55 J	0.61 J	0.77 J	1.9	0.81 J
Sodium	500	mg/kg	102 J	114 J	147 J	143 J	138 J
Vanadium	5	mg/kg	6.6	7.3	8.3	9.5	10.1
Zinc	6	mg/kg	17.7	22.7	18.9	19.9	16.6
SVOCs							
Acetophenone	170	µg/kg	170 U	170 U	170 U	170 U	170 U
Benzo(a)anthracene	170	µg/kg	170 U	170 U	170 U	170 UJ	170 U
Benzo(a)pyrene	170	µg/kg	170 U	170 U	170 U	170 U	170 U
Benzo(b)fluoranthene	170	µg/kg	170 U	170 U	170 U	170 U	170 U
Benzo(g,h,i)perylene	170	µg/kg	170 U	170 U	170 U	170 U	170 U
Benzo(k)fluoranthene	170	µg/kg	170 U	170 U	170 U	170 U	170 U
Bis(2-ethylhexyl)phthalate	170	µg/kg	170 U	170 U	160 J	130 J	120 J
Butylbenzylphthalate	170	µg/kg	170 U	170 U	62 J	51 J	48 J

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TABLE 4-3
SEDIMENT SAMPLE RESULTS SUMMARY TABLE
CASTLE CONSTRUCTION SITE
WILMINGTON, WILL COUNTY, ILLINOIS

		Location ID	CC-SD03 (Rayns Creek)		CC-SD04 (Rayns Creek)		
		Field Sample ID	CC-SD03-(0-6) - 072513	CC-SD03-(6-12) - 072513	CC-SD04-(0-6) - 072513	CC-SD04-(0-6) - 072513D	CC-SD04-(6-12) - 072513
		Sampling Date	7/25/2013	7/25/2013	7/25/2013	7/25/2013	7/25/2013
		Depth Interval (inches bss)	0-6	6-12	0-6	0-6	6-12
Chemical Name[1]	**CRQL**	**Unit**	**Downstream**	**Downstream**	**Downstream**	**Downstream**	**Downstream**
Chrysene	170	µg/kg	170 U	170 U	170 U	170 UJ	170 U
Di-n-butylphthalate	170	µg/kg	170 U	170 U	45 J	43 J	170 U
Fluoranthene	170	µg/kg	170 U	170 U	170 U	170 UJ	170 U
Indeno(1,2,3-cd)pyrene	170	µg/kg	170 U	170 U	170 U	170 U	170 U
Phenanthrene	170	µg/kg	170 U	170 U	170 U	170 U	170 U
Pyrene	170	µg/kg	170 UJ	170 U	170 U	170 UJ	170 U
VOCs							
Acetone	10	µg/kg	9.1 J	10 U	10 U	10 U	10 U

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TABLE 4-3
SEDIMENT SAMPLE RESULTS SUMMARY TABLE
CASTLE CONSTRUCTION SITE
WILMINGTON, WILL COUNTY, ILLINOIS

		Location ID	CC-SD05 (Rayns Creek)		CC-SD06 (Rayns Creek)		CC-SD07 (Kankakee River)	
		Field Sample ID	CC-SD05-(0-6) - 072413	CC-SD05-(6-12) - 072413	CC-SD06-(0-6) - 072413	CC-SD06-(6-12) - 072413	CC-SD07-(0-6) - 072413	CC-SD07-(6-12) - 072413
		Sampling Date	7/24/2013	7/24/2013	7/24/2013	7/24/2013	7/24/2013	7/24/2013
		Depth Interval (inches bss)	0-6	6-12	0-6	6-12	0-6	6-12
Chemical Name[1]	**CRQL**	**Unit**	**Downstream**	**Downstream**	**Downstream**	**Downstream**	**Downstream**	**Downstream**
Inorganics								
Aluminum	20	mg/kg	1130	8980	3170	11900	3170	7450
Antimony	6	mg/kg	6 U	0.32 J	6 U	0.5 J	0.26 J	0.32 J
Arsenic	1	mg/kg	1.8	5.6	2.4	7.9	3.9	6.5
Barium	20	mg/kg	12.9 J	10.5 J	56.2	13.3 J	40.6	84.2
Beryllium	0.5	mg/kg	0.085 J	0.38 J	0.29 J	0.43 J	0.23 J	0.49 J
Cadmium	0.5	mg/kg	0.14 J	0.72	0.41 J	0.98	0.4 J	0.81
Calcium	500	mg/kg	15400	44500	62000	59600	24100	26200
Chromium	1	mg/kg	2.5	14.3	6.8	19.1	5.9	12.6
Cobalt	5	mg/kg	1.9 J	10.9	3.9 J	14.8	3.8 J	7.2
Copper	2.5	mg/kg	1.8 J	14	4.3	18.5	6.1	14.8
Cyanide	0.5	mg/kg	0.5 UJ	0.5 UJ	0.31 J	0.5 UJ	0.5 UJ	0.5 UJ
Iron	10	mg/kg	5330	23300	8510	31200	9480	17100
Lead	1	mg/kg	2.6	13	5.4	17.3	11	22.3
Magnesium	500	mg/kg	5130	14300	9590	19200	9760	8530
Manganese	1.5	mg/kg	198	383	545	514	237	317
Mercury	0.1	mg/kg	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.077 J-
Nickel	4	mg/kg	3.5 J	26.1	7.5	35.3	7.3	17.2
Potassium	500	mg/kg	500 U	1780	500 U	2290	500 U	843
Selenium	3.5	mg/kg	0.64 J	2.6 J	1.1 J	3.3 J	1.3 J	2.5 J
Silver	1	mg/kg	0.45 J	2	0.76 J	2.7	0.91 J	1.6
Sodium	500	mg/kg	84.5 J	231 J	102 J	301 J	89.1 J	130 J
Vanadium	5	mg/kg	4.9 J	9.7	10.3	13	8.7	17.3
Zinc	6	mg/kg	10.7	45.7	24.2	60.3	33.3	73.3
SVOCs								
Acetophenone	170	µg/kg	170 U	170 U	170 U	170 U	170 U	170 U
Benzo(a)anthracene	170	µg/kg	170 U	170 U	170 UJ	170 UJ	170 UJ	170 U
Benzo(a)pyrene	170	µg/kg	170 U	170 U	170 U	170 U	170 U	170 U
Benzo(b)fluoranthene	170	µg/kg	170 U	170 U	170 U	170 U	170 U	170 U
Benzo(g,h,i)perylene	170	µg/kg	170 U	170 U	170 U	170 U	170 U	170 U
Benzo(k)fluoranthene	170	µg/kg	170 U	170 U	170 U	170 U	170 U	170 U
Bis(2-ethylhexyl)phthalate	170	µg/kg	70 J	290	84 J	170 U	47 J	80 J
Butylbenzylphthalate	170	µg/kg	45 J	50 J	50 J	43 J	43 J	58 J

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TABLE 4-3
SEDIMENT SAMPLE RESULTS SUMMARY TABLE
CASTLE CONSTRUCTION SITE
WILMINGTON, WILL COUNTY, ILLINOIS

		Location ID	CC-SD05 (Rayns Creek)		CC-SD06 (Rayns Creek)		CC-SD07 (Kankakee River)	
		Field Sample ID	CC-SD05-(0-6) - 072413	CC-SD05-(6-12) - 072413	CC-SD06-(0-6) - 072413	CC-SD06-(6-12) - 072413	CC-SD07-(0-6) - 072413	CC-SD07-(6-12) - 072413
		Sampling Date	7/24/2013	7/24/2013	7/24/2013	7/24/2013	7/24/2013	7/24/2013
		Depth Interval (inches bss)	0-6	6-12	0-6	6-12	0-6	6-12
Chemical Name[1]	**CRQL**	**Unit**	**Downstream**	**Downstream**	**Downstream**	**Downstream**	**Downstream**	**Downstream**
Chrysene	170	µg/kg	170 U	170 U	170 UJ	170 UJ	170 UJ	170 U
Di-n-butylphthalate	170	µg/kg	170 U	170 U	170 U	170 U	170 U	170 U
Fluoranthene	170	µg/kg	170 U	170 U	170 UJ	170 UJ	170 UJ	170 U
Indeno(1,2,3-cd)pyrene	170	µg/kg	170 U	170 U	170 U	170 U	170 U	170 U
Phenanthrene	170	µg/kg	170 U	170 U	170 U	170 U	170 U	170 U
Pyrene	170	µg/kg	170 U	170 U	170 UJ	170 UJ	170 UJ	170 U
VOCs								
Acetone	10	µg/kg	10 U	10 U	10 U	10 U	10 U	10 U

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TABLE 4-3
SEDIMENT SAMPLE RESULTS SUMMARY TABLE
CASTLE CONSTRUCTION SITE
WILMINGTON, WILL COUNTY, ILLINOIS

		Location ID	CC-SD08 (Kankakee River)		CC-SD09 (Kankakee River)	
		Field Sample ID	CC-SD08-(0-6) - 072413	CC-SD08-(6-12) - 072413	CC-SD09-(0-6) - 072413	CC-SD09-(6-12) - 072413
		Sampling Date	7/24/2013	7/24/2013	7/24/2013	7/24/2013
		Depth Interval (inches bss)	0-6	6-12	0-6	6-12
Chemical Name[1]	**CRQL**	**Unit**	**Background**	**Background**	**Downstream**	**Downstream**
Inorganics						
Aluminum	20	mg/kg	6940	8770	4980	3940
Antimony	6	mg/kg	6 U	0.33 J	0.33 J	0.22 J
Arsenic	1	mg/kg	4.4	4	5.6	3.6
Barium	20	mg/kg	66.9	49.4	52.3	20.5
Beryllium	0.5	mg/kg	0.42 J	0.53	0.27 J	0.35 J
Cadmium	0.5	mg/kg	0.68	0.68	0.59 J	0.42 J
Calcium	500	mg/kg	38000	42000	34200	51100
Chromium	1	mg/kg	12.6	15.8	8.6	7.2
Cobalt	5	mg/kg	8	11.2	5.9 J	5.8
Copper	2.5	mg/kg	11.4	18.7	10.7	8.9
Cyanide	0.5	mg/kg	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ
Iron	10	mg/kg	15900	18100	14200	10100
Lead	1	mg/kg	14.8	13.3	12.8	9.3
Magnesium	500	mg/kg	14900	21800	12100	27700
Manganese	1.5	mg/kg	532	608	327	177
Mercury	0.1	mg/kg	0.1 U	0.1 U	0.1 U	0.1 U
Nickel	4	mg/kg	17.9	25.7	12.7	11.5
Potassium	500	mg/kg	832	1400	633	605
Selenium	3.5	mg/kg	1.9 J	2.2 J	2 J	1.4 J
Silver	1	mg/kg	1.5	1.6	1.3	0.91 J
Sodium	500	mg/kg	151 J	169 J	123 J	127 J
Vanadium	5	mg/kg	15.7	19.6	12.9	11.2
Zinc	6	mg/kg	61.9	63.1	51.8	40.5
SVOCs						
Acetophenone	170	µg/kg	170 U	170 U	170 U	170 U
Benzo(a)anthracene	170	µg/kg	170 UJ	170 U	170 U	170 UJ
Benzo(a)pyrene	170	µg/kg	170 U	170 U	170 U	170 U
Benzo(b)fluoranthene	170	µg/kg	170 U	170 U	170 U	170 U
Benzo(g,h,i)perylene	170	µg/kg	170 U	170 U	170 U	170 U
Benzo(k)fluoranthene	170	µg/kg	170 U	170 U	170 U	170 U
Bis(2-ethylhexyl)phthalate	170	µg/kg	52 J	170 U	1500	73 J
Butylbenzylphthalate	170	µg/kg	53 J	170 U	72 J	65 J

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TABLE 4-3
SEDIMENT SAMPLE RESULTS SUMMARY TABLE
CASTLE CONSTRUCTION SITE
WILMINGTON, WILL COUNTY, ILLINOIS

		Location ID	CC-SD08 (Kankakee River)		CC-SD09 (Kankakee River)	
		Field Sample ID	CC-SD08-(0-6) - 072413	CC-SD08-(6-12) - 072413	CC-SD09-(0-6) - 072413	CC-SD09-(6-12) - 072413
		Sampling Date	7/24/2013	7/24/2013	7/24/2013	7/24/2013
		Depth Interval (inches bss)	0-6	6-12	0-6	6-12
Chemical Name[1]	**CRQL**	**Unit**	**Background**	**Background**	**Downstream**	**Downstream**
Chrysene	170	µg/kg	170 UJ	170 U	170 U	170 UJ
Di-n-butylphthalate	170	µg/kg	170 U	170 U	170 U	170 U
Fluoranthene	170	µg/kg	170 UJ	170 U	170 U	170 UJ
Indeno(1,2,3-cd)pyrene	170	µg/kg	170 U	170 U	170 U	170 U
Phenanthrene	170	µg/kg	170 U	170 U	170 U	170 U
Pyrene	170	µg/kg	170 UJ	170 U	170 U	170 UJ
VOCs						
Acetone	10	µg/kg	10 U	10 U	10 U	10 U

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TABLE 4-4
RAYNS CREEK SEDIMENT BACKGROUND COMPARISON TABLE
CASTLE CONSTRUCTION SITE
WILMINGTON, WILL COUNTY, ILLINOIS

Chemical Name	CRQL	Background Maximum	3x Background Maximum	Location ID	CC-SD01			CC-SD02	
				Field Sample ID	CC-SD01-(0-6) - 072513	CC-SD01-(0-6) - 072513D	CC-SD01-(6-12) - 072513	CC-SD02-(0-6) - 072513	CC-SD02-(6-12) - 072513
				Sampling Date	7/25/2013	7/25/2013	7/25/2013	7/25/2013	7/25/2013
				Depth (in bss)	0-6	0-6	6-12	0-6	6-12
				Unit	Background	Background	Background	Background	Background
Inorganics									
Cadmium	0.5	ND	ND	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Cobalt	0.5	ND	ND	mg/kg	5 U	5 U	5 U	5 U	5 U
Cyanide	0.5	ND	ND	mg/kg	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ
Manganese	1.5	173	519	mg/kg	164 J	173 J	101 J	111 J	117 J
Nickel	4	11.6	34.8	mg/kg	10.6	11.6	7.8	3.9	4.6
Selenium	3.5	0.55	1.65	mg/kg	0.48 J	0.55 J	3.5 U	3.5 U	0.4 J
SVOCs									
Bis(2-ethylhexyl)phthalate	170	ND	ND	µg/kg	170 U	170 U	170 U	170 U	170 U
Butylbenzylphthalate	170	ND	ND	µg/kg	170 U	170 U	170 U	170 U	170 U

Chemical Name	CRQL	Background Maximum	3x Background Maximum	Location ID	CC-SD03		CC-SD04		
				Field Sample ID	CC-SD03-(0-6) - 072513	CC-SD03-(6-12) - 072513	CC-SD04-(0-6) - 072513	CC-SD04-(0-6) - 072513D	CC-SD04-(6-12) - 072513
				Sampling Date	7/25/2013	7/25/2013	7/25/2013	7/25/2013	7/25/2013
				Depth (in bss)	0-6	6-12	0-6	0-6	6-12
				Unit	Downstream	Downstream	Downstream	Downstream	Downstream
Inorganics									
Cadmium	0.5	ND	ND	mg/kg	0.5 U	0.5 U	0.5 U	**0.53**	0.5 U
Cobalt	0.5	ND	ND	mg/kg	**2.3 J**	**2.7 J**	**2.2 J**	**7**	**2.8 J**
Cyanide	0.5	ND	ND	mg/kg	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ
Manganese	1.5	173	519	mg/kg	83.3 J	133 J	175 J	**799 J**	269 J
Nickel	4	11.6	34.8	mg/kg	4.1 J	6.1	4.2 J	7.7	4.9
Selenium	3.5	0.55	1.65	mg/kg	3.5 U	3.5 U	3.5 U	3.5 U	3.5 U
SVOCs									
Bis(2-ethylhexyl)phthalate	170	ND	ND	µg/kg	170 U	170 U	160 J	130 J	120 J
Butylbenzylphthalate	170	ND	ND	µg/kg	170 U	170 U	62 J	51 J	48 J

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TABLE 4-4
RAYNS CREEK SEDIMENT BACKGROUND COMPARISON TABLE
CASTLE CONSTRUCTION SITE
WILMINGTON, WILL COUNTY, ILLINOIS

Chemical Name	CRQL	Background Maximum	3x Background Maximum	Location ID	CC-SD05		CC-SD06	
				Field Sample ID	CC-SD05-(0-6) - 072413	CC-SD05-(6-12) - 072413	CC-SD06-(0-6) - 072413	CC-SD06-(6-12) - 072413
				Sampling Date	7/24/2013	7/24/2013	7/24/2013	7/24/2013
				Depth (inches bss)	0-6	6-12	0-6	6-12
				Unit	Downstream	Downstream	Downstream	Downstream
Inorganics								
Cadmium	0.5	ND	ND	mg/kg	0.14 J	**0.72**	0.41 J	**0.98**
Cobalt	0.5	ND	ND	mg/kg	**1.9 J**	**10.9**	**3.9 J**	**14.8**
Cyanide	0.5	ND	ND	mg/kg	0.5 UJ	0.5 UJ	0.31 J	0.5 UJ
Manganese	1.5	173	519	mg/kg	198	383	**545**	514
Nickel	4	11.6	34.8	mg/kg	3.5 J	26.1	7.5	**35.3**
Selenium	3.5	0.55	1.65	mg/kg	0.64 J	**2.6 J**	1.1 J	**3.3 J**
SVOCs								
Bis(2-ethylhexyl)phthalate	170	ND	ND	µg/kg	70 J	290	84 J	170 U
Butylbenzylphthalate	170	ND	ND	µg/kg	45 J	50 J	50 J	43 J

Notes:

Bold, highlighted concentrations exceed three times maximum background concentrations.

Bold, highlighted concentrations exceed CRQL [background is non-detect (ND)]

µg/kg = Microgram per kilogram
bss = Below sediment surface
CRQL = Contract Required Quantiation Limit
ID = Identification
in = Inches
J = Concentration estimated
J - = Concentration estimated and biased low
mg/kg = Milligram per kilogram
ND = Not detected
U = Constituent not detected at indicated reporting limit `
UJ = Constituent not detected at indicated estimated reporting limit

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TABLE 4-5
KANKAKEE RIVER SEDIMENT BACKGROUND COMPARISON TABLE
CASTLE CONSTRUCTION SITE
WILMINGTON, WILL COUNTY, ILLINOIS

Chemical Name	CRQL	Background Maximum	3 x Background Maximum	Location ID	CC-SD08		CC-SD07	
				Field Sample ID	CC-SD08-(0-6)-072413	CC-SD08-(6-12)-072413	CC-SD07-(0-6)-072413	CC-SD07-(6-12)-072413
				Sampling Date	7/24/2013	7/24/2013	7/24/2013	7/24/2013
				Depth (inches bss)	0-6	6-12	0-6	6-12
				Unit	Background	Background	Downstream	Downstream
Inorganics								
Mercury	0.1	ND	ND	mg/kg	0.1 U	0.1 U	0.1 U	0.077 J-
SVOCs								
Bis(2-ethylhexyl)phthalate	170	52	1560*	µg/kg	52 J	170 U	47 J	80 J

Chemical Name	CRQL	Background Maximum	3 x Background Maximum	Location ID	CC-SD09	
				Field Sample ID	CC-SD09-(0-6)-072413	CC-SD09-(6-12)-072413
				Sampling Date	7/24/2013	7/24/2013
				Depth (inches bss)	0-6	6-12
				Unit	Downstream	Downstream
Inorganics						
Mercury	0.1	ND	ND	mg/kg	0.1 U	0.1 U
SVOCs						
Bis(2-ethylhexyl)phthalate	170	52	1560*	µg/kg	1500	73 J

Notes:
* Original background concentration was 156 ug/kg "J"; because it was "J" qualified, it was modified to 1560 ug/kg.

µg/kg = Microgram per kilogram
bss = Below sediment surface
CRQL = = Contract Required Quantiation Limit
ID = Identification
J = Concentration estimated
J - = Concentration estimated and biased low
mg/kg = Milligram per kilogram
ND = Not detected
SVOC = Semivolatile organic compound
U = Constituent not detected at indicated reporting limit

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TABLE 4-6
GROUNDWATER SAMPLE RESULTS SUMMARY TABLE
CASTLE CONSTRUCTION SITE
WILMINGTON, WILL COUNTY, ILLINOIS

Chemical Name[1]	CRQL	MCL/ MCLG	Location ID	CC-RW01	CC-RW02		CC-RW03
			Field Sample ID	CC-RW01-072313	CC-RW02-072313	CC-RW02-072313D	CC-RW03-072313
			Sampling Date	7/23/2013	7/23/2013	7/23/2013	7/23/2013
			Unit				
Arsenic	1	10	µg/L	1 U	**5.5**	**5.4**	1 U
Barium	10	2000	µg/L	3.9 J	6.8 J	6.9 J	12.2
Calcium	500	-	µg/L	40800	62900	62600	49100
Copper	2	1300	µg/L	7.7	0.39 J	0.43 J	6.9
Iron	200	-	µg/L	200 U	1640	1650	232
Magnesium	500	-	µg/L	19400	28500	28500	24500
Manganese	1	-	µg/L	68.3	89.4	89	27.7
Nickel	1	-	µg/L	2.1	1 U	1 U	1.1
Potassium	500	-	µg/L	1920	2070	2060	2190
Sodium	500	-	µg/L	6680	6550	6480	46600
Zinc	2	-	µg/L	5.4	8.2	8.1	3.7

Notes:

[1]Only detected chemical constituents presented

Bold, highlighted concentrations exceed the SCDM Cancer Risk Screening Concentration benchmark.

- = No SCDM benchmark exists
µg/L = Microgram per liter
CRQL = Contract Required Quantitation Limit
ID = Identification
J = Concentration estimated
MCL = Maximum Contaminant Level
MCLG = Maximum Contaminant Level Goal
SCDM = Superfund Chemical Data Matrix
U = Constituent not detected at indicated reporting limit

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APPENDIX A
PHOTOGRAPHIC DOCUMENTATION

Site: Castle Construction
Photograph No.: 1 **Date:** 7/23/13
Direction: North **Photographer:** David Sena
Subject: API Well No. 121973844100, which supplies water to the residence on parcel 08-25-21-100-026

Site: Castle Construction
Photograph No.: 2 **Date:** 7/23/13
Direction: Down **Photographer:** David Sena
Subject: Groundwater sample CC-RW01-072313 collected from an outdoor spigot at the residence on parcel 08-25-21-100-026

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Site: Castle Construction
Photograph No.: 3 **Date:** 7/23/13
Direction: Northeast **Photographer:** David Sena
Subject: API Well No. 121973793700 (under cone), which supplies water to the structure on parcel 08-25-21-100-025

Site: Castle Construction
Photograph No.: 4 **Date:** 7/23/13
Direction: Down **Photographer:** David Sena
Subject: Outdoor spigot at the structure on parcel 08-25-21-100-025 from which groundwater sample CC-RW02-072313 was collected

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Site: Castle Construction
Photograph No.: 5 **Date:** 7/23/13
Direction: Northeast **Photographer:** David Sena
Subject: API Well No. 121974227800 (under fire hydrant), which supplies water to the residence on parcel 08-25-21-100-024

Site: Castle Construction
Photograph No.: 6 **Date:** 7/23/13
Direction: Down **Photographer:** David Sena
Subject: Groundwater sample CC-RW03-072313 collected from an outdoor spigot at the residence on parcel 08-25-21-100-024

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Site: Castle Construction
Photograph No.: 7 **Date:** 7/24/13
Direction: South **Photographer:** David Sena
Subject: Soil sampling location CC-SO01 in the northwest region of the Site

Site: Castle Construction
Photograph No.: 8 **Date:** 7/24/13
Direction: Down **Photographer:** David Sena
Subject: Soil from 0 to 12 inches bgs collected from CC-SO01 before placement into sampling containers

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Site: Castle Construction
Photograph No.: 9 **Date:** 7/24/13
Direction: South **Photographer:** David Sena
Subject: Soil sampling location CC-SO02 in a corn field in the north-central region of the Site

Site: Castle Construction
Photograph No.: 10 **Date:** 7/24/13
Direction: Down **Photographer:** David Sena
Subject: Soil sample CC-SO02(0-12)-072413 collected from soil sampling location CC-SO02

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Site: Castle Construction
Photograph No.: 11 **Date:** 7/23/13
Direction: Northeast **Photographer:** David Sena
Subject: Soil sampling location CC-SO12 in the southwest region of the Site

Site: Castle Construction
Photograph No.: 12 **Date:** 7/23/13
Direction: Down **Photographer:** David Sena
Subject: Soil from 0 to 12 inches bgs collected from CC-SO12 before placement into sampling containers

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Site: Castle Construction
Photograph No.: 13 **Date:** 7/24/13
Direction: East **Photographer:** David Sena
Subject: Soil sampling location CC-SO13 in the southern region of the Site

Site: Castle Construction
Photograph No.: 14 **Date:** 7/23/13
Direction: Down **Photographer:** David Sena
Subject: Soil sample CC-SO13(0-12)-072313 collected from soil sampling location CC-SO13

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Site: Castle Construction
Photograph No.: 15 **Date:** 7/24/13
Direction: West **Photographer:** David Sena
Subject: Soil sampling location CC-SO14 in the southeast region of the Site

Site: Castle Construction
Photograph No.: 16 **Date:** 7/24/13
Direction: Down **Photographer:** David Sena
Subject: Soil sample CC-SO14(0-12)-072413 collected from soil sampling location CC-SO14

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Site: Castle Construction
Photograph No.: 17 **Date:** 7/25/13
Direction: Southeast **Photographer:** David Sena
Subject: WESTON START using a hand auger to collect a soil core at background soil sampling location CC-SO15

Site: Castle Construction
Photograph No.: 18 **Date:** 7/25/13
Direction: Down **Photographer:** David Sena
Subject: Plastic bags containing soil from 0 to 6, 6 to 12, 12 to 18, and 18 to 24 inches bgs collected from soil sampling location CC-SO15 before screening with a MultiRAE

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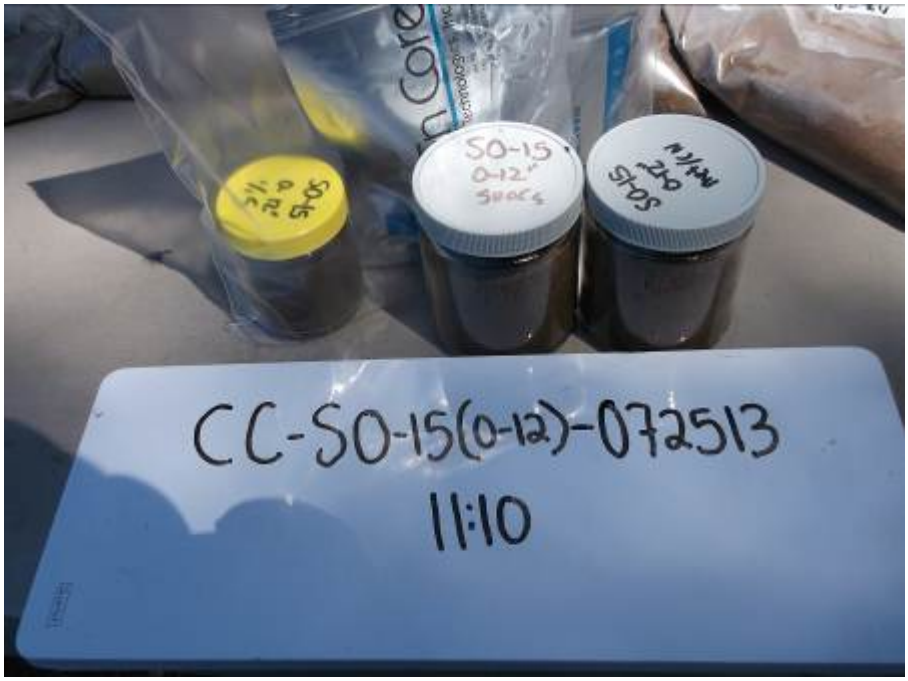

Site: Castle Construction
Photograph No.: 19 **Date:** 7/25/13
Direction: Down **Photographer:** David Sena
Subject: Soil sample CC-SO15(0-12)-072513 collected from soil sampling location CC-SO15

Site: Castle Construction
Photograph No.: 20 **Date:** 7/25/13
Direction: South **Photographer:** David Sena
Subject: Rayns Creek sediment sampling location CC-SD01

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Site: Castle Construction
Photograph No.: 21 **Date:** 7/25/13
Direction: Down **Photographer:** David Sena
Subject: Sediment collected from 0 to 6 and 6 to 12 inches below sediment surface (bss) at Rayns Creek sediment sampling location CC-SD01

Site: Castle Construction
Photograph No.: 22 **Date:** 7/25/13
Direction: South **Photographer:** David Sena
Subject: Rayns Creek sediment sampling location CC-SD02

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Site: Castle Construction
Photograph No.: 23 **Date:** 7/25/13
Direction: Down **Photographer:** David Sena
Subject: Sediment collected from 0 to 6 and 6 to 12 inches bss at Rayns Creek sediment sampling location CC-SD02

Site: Castle Construction
Photograph No.: 24 **Date:** 7/25/13
Direction: South **Photographer:** David Sena
Subject: Rayns Creek sediment sampling location CC-SD03

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Site: Castle Construction
Photograph No.: 25 **Date:** 7/25/13
Direction: Down **Photographer:** David Sena
Subject: Sediment collected from 0 to 6 and 6 to 12 inches bss at Rayns Creek sediment sampling location CC-SD03

Site: Castle Construction
Photograph No.: 26 **Date:** 7/25/13
Direction: South **Photographer:** David Sena
Subject: WESTON START collecting a GPS coordinate at Rayns Creek sediment sampling location CC-SD04

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Site: Castle Construction
Photograph No.: 27 **Date:** 7/25/13
Direction: Down **Photographer:** David Sena
Subject: Sediment collected from 0 to 6 and 6 to 12 inches bss at Rayns Creek sediment sampling location CC-SD04

Site: Castle Construction
Photograph No.: 28 **Date:** 7/24/13
Direction: East **Photographer:** David Sena
Subject: Rayns Creek sediment sampling location CC-SD05

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Site: Castle Construction
Photograph No.: 29 **Date:** 7/24/13
Direction: Down **Photographer:** David Sena
Subject: Sediment core collected from Rayns Creek sediment sampling location CC-SD05

Site: Castle Construction
Photograph No.: 30 **Date:** 7/24/13
Direction: North **Photographer:** David Sena
Subject: Rayns Creek sediment sampling location CC-SD06

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Site: Castle Construction
Photograph No.: 31 **Date:** 7/24/13
Direction: Down **Photographer:** David Sena
Subject: Sediment core collected from Rayns Creek sediment sampling location CC-SD06

Site: Castle Construction
Photograph No.: 32 **Date:** 7/24/13
Direction: North **Photographer:** David Sena
Subject: Kankakee River sediment sampling location CC-SD07 at the confluence of the Kankakee River and Rayns Creek

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Site: Castle Construction
Photograph No.: 33 **Date:** 7/24/13
Direction: Down **Photographer:** David Sena
Subject: Sediment core collected from sediment sampling location CC-SD07

Site: Castle Construction
Photograph No.: 34 **Date:** 7/24/13
Direction: East northeast **Photographer:** David Sena
Subject: WESTON START advancing a sediment corer at upstream Kankakee River sediment sampling location CC-SD08

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Site: Castle Construction
Photograph No.: 35 **Date:** 7/24/13
Direction: Down **Photographer:** David Sena
Subject: Sediment core collected from upstream Kankakee River sediment sampling location CC-SD08

Site: Castle Construction
Photograph No.: 36 **Date:** 7/24/13
Direction: West **Photographer:** David Sena
Subject: Downstream Kankakee River sediment sampling location CC-SD09

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Site: Castle Construction
Photograph No.: 37 **Date:** 7/24/13
Direction: Down **Photographer:** David Sena
Subject: Sediment core collected from downstream Kankakee River sediment sampling location CC-SD09

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APPENDIX B
LOGBOOK NOTES AND WELL SAMPLING LOGS

Outdoor writing products for Outdoor writing people

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№ 391

7-23-13 to 7-25-13

7-23-13 Castle Construction SI Sena

0800 START: Sena and Colomb arrived at the Kankakee River State Park (KRSP) Area A Parking lot. Weather: 71°F, Partly cloudy, wind from the W at 4 mph. —— DS

0815 Calibrated MultiRAE 095-531375 with 100 ppm Isobutylene. VOCs = 100 ppm. Calibrated with 25ppm H_2S, 50ppm CO, 50% LEL, & 20.9% O_2. H_2S = 24 ppm, CO = 50ppm, LEL = 49%, and O_2 = 20.9%. All parameters w/in 10%.

0900 David Brauner with U.S. EPA arrived at the Site. Group held health & safety meeting. —— DS

0905 Calibrated YSI RFW25379 with pH 4 solution, pH = 3.99; pH 7 solution, pH = 7.00; pH 10 Solution, pH = 9.97; Conductivity 1ms/cm Solution, conductivity = 1.001 mS/cm; ORP Solution 237.5 mV, ORP = 235.4 mV. All parameters w/in 10%. —— DS

0930 Arrived at the Castle Construction Site and met with Jeff and Linda Castle; explained our sampling during the next three days. The Castles explained that ~~they no~~ DS they will bypass the softener on the ~~one~~ DS RW-02 well, and that outdoor spigots for RW-01 & RW-03 were not treated. Stated they no ~~the~~ DS longer own the property where there used to be

7-22-13 Castle Construction SI Sena

Pig farms, its across 102 to the NW of 19841. —— DS

0950 Began purging RW02, located to the South of the barn on 19841 property, parcel-025 See Sampling log for more information

1015 Collected CC-RW02-072313 —— DS

1020 Collected CC-RW02-072313D Duplicate. —— DS

1100 Began purging RW01, located on parcel -026. See Sampling log for more information.

11:20 Collected CC-RW01-072313 —— DS

11:40 Began purging RW-03, located on parcel -024. See Sampling log for more information.

12:00 Collected CC-RW03-072313 MS/MSD —— DS

12:30 Crew took lunch. —— DS

1335 Arrived at SO-03. Began boring w/hand augers. 0-6" is orangish brown ~~s~~ DS fine sand with little root-lets, no silt, dry, poorly graded, loose. 6-24" is same as above w/no root-lets. No odor or staining.

depth	Headspace	
0-6	0.6	DS
6-12	0.5	DS
12-18	0.8	DS
18-24	0.2	DS

1350 Arrived at SO-04. Began boring with hand augers. 0-24" is grayish brown and orangish brown fine sand, little rootlets, ~~no s~~ DS little

7-23-13 Castle Construction S1 Sena

silt, dry, loose, no odor or staining. — DS

Depth	Headspace
0-6"	0.4
6-12"	0.4
12-18"	0.4
18-24"	0.6

1415 Arrived at S0-07. Began boring with hand augers. 0 to 24" is grayish brown and orangish brown sand w/little silt, trace rootlets, dry, loose, poorly sorted, no odor/staining — DS

Depth	Headspace
0-6"	0.3
6-12"	0.7
12-18"	0.5
18-24"	0.5

1430 Arrived at S0-11. Began boring with hand augers. 0-18" is grayish brown ~~and~~ and orangish brown fine sand, trace root-lets, dry, loose, no odor or staining. 18-24" is orangish brown sand with some clay, dry to moist, medium loose, no staining or odor. — DS

Depth	Headspace
0-6"	0.2
6-12"	0.0
12-18"	0.6
18-24"	0.2

1450 Arrived at S0-08. Began boring w/hand

7-23-13 Castle Construction S1 Sena

auger. 0-18" bgs is grayish brown and orangish brown fine sand, dry, loose, poorly sorted, trace gravel at 0-6" bgs (coarse, angular). 18-24" is grayish brown clayey sand, medium tight, dry, no staining or odor. — DS

depth	Headspace
0-6"	0.6
6-12"	0.8
12-18"	1.3
18-24"	0.2

1510 Arrived at S0-09. Began boring w/hand augers. 0-24" bgs is grayish brown fine sand with little silt, dry, loose, poorly sorted, trace root-lets in 0-6" bgs interval, no odor/staining. — DS

Depth	Headspace
0-6"	0.2
6-12"	0.1
12-18"	0.4
18-24"	0.4

1525 Arrived at ~~S0-10~~ S0-10. Began boring w/hand augers. 0-18" is grayish brown & orangish brown fine sand w/little silt, dry, loose, poorly sorted, no staining or odor 18-24" is the same but with ~~to~~ orangish brown medium-grained sand. — DS

Depth Headspace — DS

7-23-13 Castle Construction S1 Sena

0-6'	0.2	DS
6-12"	0.0	DS
12-18"	0.5	DS
18-24"	0.1	DS

1540 Arrived at SO-06. Began boring with hand augers. 0-18" is grayish brown & orangish brown fine sand with ~~tra~~ DS little silt, poorly graded, dry, loose, no odor/staining. 18-24" is ~~o~~ DS the same as above but w/no silt. DS

Depth	Headspace	DS
0-6"	0.2	DS
6-12"	0.7	DS
12-18"	0.3	DS
18-24"	0.4	DS

1555 Arrived at ~~SO~~ DS SO-05. Began boring with hand augers. 0-12" bgs is grayish brown & orangish brown fine sand w/some silt, dry, poorly ~~sorted~~ graded DS loose, no staining or odor. 12-24" is orangish brown sand w/little gravel (coarse, angular), dry, poorly ~~so~~ DS graded, loose, no odor or staining DS

Depth	Headspace	DS
0-6"	0.0	DS
6-12"	0.0	DS
12-18"	0.0	DS
18-24"	0.0	DS

7-23-13 Castle Construction S1 Sena

1605 Will return to SO-05 & collect sample there. Will also collect samples from SO-01, SO-02, SO-12, SO-13, & SO-14. DS

1610 Arrived back at SO-08. ~~Collected 12-18" bgs soil sample, CC~~ DS DS

1615 Collected 12-18" bgs soil sample from location, CC-SO-08(12-18)-072313. Soil was grayish brown and orangish brown fine sand, ~~with~~ DS, with little clay, dry, medium loose, poorly graded, no odor or staining. DS

1645 Arrived at SO-12. Began soil boring w/ hand augers. 0-24" bgs is grayish brown sand w/some silt, poorly graded, dry, root-lets at 0-6" bgs, loose, no odor or staining DS

Depth	Headspace	DS
0-6	0.0	DS
6-12	0.4	DS
12-18	0.3	DS
18-24	0.4	DS

1715 Collected ~~CC-SO-0~~ DS CC-SO12(0-12)-072313 from 0-12" bgs. VOC sample collected from the 0-6" interval. DS

1745 Demobilized from the Site. DS

David Sena
7-23-13

Rite in the Rain

7-24-13 Castle Construction S1 Sena

0730 Arrived at 19841 SR 102, location SO-01. STARTs Sena & Colomb present. Weather: 73°F, ~~Sunny, wind from the NE at 4 mph.~~ Calibrated MultiRAE 095-531375 with 100 ppm Isobutylene. VOCs = 100 ppm. Calibrated with 25 ppm H_2S, 50 ppm CO, 50% LEL, 20.9% O_2. H_2S = 25 ppm, CO = 49, LEL = 50%, O_2 = 20.9%. — DS

0800 Began boring w/hand augers at SO-01. 0-24" bgs is grayish brown silty fine sand with trace gravel (fine, angular), dry, medium ~~soft~~ (S) loose, no staining/odor. — DS

Depth	Headspace	
0-6"	0.60	DS
6-12"	1.2	DS
12-18"	1.1	DS
18-24"	1.0	DS

0820 Advanced second adjacent boring 0-12" and collected (CC-SO-01(0-12)-072413). VOCs were collected ~~0-6~~ (S) in the 6-12" interval. — DS

0850 Arrived at SO-02. Due to access through corn field, location was relocated to the SE. Began boring w/hand augers. 0-24" bgs is light grayish brown sandy silt; trace rootlets in the 0-6" interval, soil is dry, medium-~~loose~~ (S) soft, no odor/staining. — DS

7-24-13 Castle Construction S1 Sena

Depth	Headspace	
0-6"	0.5	DS
6-12"	1.2	DS
12-18"	0.8	DS
18-24"	1.0	DS

9:10 Collected (CC-SO-02(0-12)-072413) from 0-12" bgs, VOC sample collected from the 6-12" interval prior to homogenization. — DS

09:40 Arrived at SO-13. Began boring with hand augers. 0-18" is light brown sand with some silt, trace rootlets in the 0-6" interval, dry, loose, poorly graded, no odor or staining. 18-24" bgs is the same as above with some clay (medium plastic), and soil is medium-loose.

Depth	Headspace	
0-6"	0.5	DS
6-12"	~~0.8~~ (S) 0.5	DS
12-18"	0.8	DS
18-24"	0.7	DS

1000 Advanced a second boring adjacent to original SO-13 ~~#~~ (S) 0-12" bgs and collected (CC-SO-13(0-12)-072413) — DS

1005 Collected duplicate (CC-SO-13(0-12)-072413D)

1030 Arrived at SO-14. Began boring w/hand augers. 0-12" is grayish brown & orangish brown ~~Sa~~ (S) fine sand with little silt, dry, loose, poorly graded

7-24-13 Castle Construction SI Sena

no staining/odor. 12-24" is orangish brown fine sand, no fines, loose, dry, poorly graded, no odor/staining ——— DS

Depth	Headspace	
0-6"	1.0	DS
6-12"	0.7	DS
12-18"	1.1	DS
18-24"	0.6	DS

1045 Advanced 2nd boring adjacent to original SD-14 0-12" bgs, collected [CC-SD-14(0-12)-072413]. VOCs collected from the 6-12" bgs interval. MS/MSD sample. ——— DS

1130 Crew took lunch. ——— DS

1215 Arrived at SD-09. David Brauner was provided verbal access from Mr. Hiles to access parcel 08-25-21-400-004-0000. Written access was reportedly sent via mail but had not yet been recieved by David Brauner. ~~Began~~ Advanced Lexan tube approximately 15" into sediment. Collected GPS coordinate. Placed core on ice for later processing. ——— DS

1240 Arrived at SD-07 at confluence of the Rayns Creek & Kankakee River. Advanced Lexan tube approximately 15" into sediment. Collected GPS coordinate & Placed core on ice. ——— DS

7-24-13 Castle Construction SI Sena

1300 Arrived at SD-08. Advanced Lexan tube approximately 18" into sediment. Collected GPS coordinate. Placed core on ice for later processing. ——— DS

1330 Arrived at SD-06. Advanced lexan tube approx. 15" into sediment. Collected GPS coordinate. Placed core on ice. ——— DS

1415 Arrived at SD-05. Advanced Lexan tube approximately 12" into sediment. Collected GPS coordinate. Placed core on ice. ——— DS

1445 Processed core from SD-08. 0-4" are grayish black organic silt, soft, wet, organic odor, no staining. 4-10" are gray sandy clay, medium plastic, trace cobble (~~a~~ subrounded), wet, no odor/staining. 10-22" are gray clay, moist, high plasticity, firm, no odor/staining. ——— DS

1500 Collected [CC-SD08(0-6)-072413] ——— DS

1505 Collected [CC-SD08(6-12)-072413] ——— DS

1530 Processed core from SD-07. 0-8" is grayish black and brown sand with some silt, poorly graded, medium loose, wet, decaying leaves & wood chips present, no staining, organic odor. 8-14" is ~~gray~~ dark gray clayey sand w/little silt, wet, poorly graded, little decaying leaves, wet, no odor/staining. ——— DS

Rite in the Rain DS

7-24-13 Castle Construction S1 Sena

1545 Collected CC-SD07(0-6)-072413 —— DS

1550 Collected CC-SD07(6-12)-072413 —— DS

1605 Processed core from SD-09. 0-8" bgs is Dark grayish black silt with some fine sand and decaying leaves and woody debris, wet, ~~poo~~ DS soft, organic odor, no staining. 8-15" is light brown ~~sand~~ DS coarse sand with silt and little decaying leaves, wet, poorly graded, medium looseness, no odor or staining. —— DS

16:20 Collected CC-SD09(0-6)-072413 —— DS

16:25 Collected CC-SD09(6-12)-072413 —— DS

16:40 Processed core from SD-06. ~~0-8" is~~ DS 0-4" is dark gray sand with some silt and some decaying woody debris, wet, poorly graded, no odor or staining, medium tight. 4 to 18" is gray clay with fine sand, medium plasticity, little woody debris, wet, medium soft, no odor or staining, trace shells. —— DS

1700 Collected CC-SD06(0-6)-072413 —— DS

1705 Collected CC-SD06(6-12)-072413 —— DS

1715 Processed core from SD-05. 0-6" is ~~fc~~ DS brown coarse sand, poorly graded, no fine material, wet, medium loose, no odor/staining. 6-13" is gray clay, very firm, moist, ~~very~~ DS medium plastic. No staining or odor. —— DS

7-24-13 Castle Construction S1 Sena

17:35 Collected CC-SD05(0-6)-072413 —— DS

17:40 Collected CC-SD05(6-12)-072413 —— DS

18:20 Demobilized from the site. —— DS

David Sena
7-24-13

Rite in the Rain

7-25-13 Castle Construction SI Sena

07:30 STARTs Sena & Colomb arrived at 19841 SR 102, outside location SD-04. The weather is 68°F, mostly cloudy, wind from [illegible] DS

07:45 Calibrated multiRAE 095-531375 with 100ppm Isobutylene. VOCs = 100. Calibrated with 25ppm H_2S, 50ppm CO, 50% LEL, & 20.9% O_2. H_2S=25, CO=50, LEL=49, O_2=20.9

0800 ~~Left~~ DS Arrived at SD-04. Collected 0-6" & 6-12" soil cores w/hand augers due to substrate coarseness (high gravel & cobble percentage). 0-6" bgs is blackish brown sand (fine to coarse) with some silt & little gravel (fine, subrounded), wet, medium loose, well graded, no odor or staining. 6-12" bgs is brown coarse sand and gravel (fine, rounded), with some cobble (rounded), wet, trace woody debris, well graded, medium loose. —— DS

8:20 Collected CC-SD04(0-6)-072513 —— DS

8:25 Collected CC-SD04(0-6)-072513D —— DS

8:30 Collected CC-SD04(6-12)-072513 —— DS

9:20 Arrived at SD-03. Collected 0-6" & 6-12" soil cores w/hand augers. 0-6" is grayish black fine to coarse-grained sand with some silt, trace shell pieces, little woody debris, wet, loose, no odor or staining, poorly

7-25-13 Castle Construction SI Sena

graded. 6-12" is dark gray sand & gravel (coarse, rounded), little cobble (subrounded), transitioning to gray clay, very firm, medium plastic, moist. No odor or staining. —— DS

1000 Collected CC-SD03(0-6)-072513 —— DS

1010 Collected CC-SD03(6-12)-072513 —— DS

1040 Arrived at Background soil location SD-15. ~~Auger~~ DS Bored to 24" bgs w/hand augers. 0-12" bgs is grayish brown fine sand, little root-lets, dry, loose, poorly graded, no odor or staining. 12-24" bgs is the same as above with an orangish brown color. —— DS

Depth	Headspace	
0-6"	0.5	DS
6-12"	0.9	DS
12-24" 18"	1.2	DS
18-24"	0.8	DS

1105 Collected CC-SD15(0-12)-072513 —— DS

1140 Arrived at SD-02. Bored to 12" bgs with hand augers. 0-6" is blackish brown fine grained sand w/decaying leaves & woody debris, wet, poorly graded, medium loose. No odor or staining. 6-12" bgs is the same as above with little gravel (coarse, subrounded) and little cobble (subrounded). —— DS

Rite in the Rain

7-25-13 Castle Construction 51 Seng

12:15 Collected CC-SD02(0-6)-~~05~~ 072513 — DS

12:20 Collected CC-SD02(6-12)-072513 — DS

12:45 Arrived at SD-01. Moved to south side of SR 102 due to ~~a~~ lack of access at original location. Bored to 12" bgs with hand augers. 0-6" is grayish black organic silt w/~~son~~ little fine sand, heavy & woody debris present, wet, very soft, organic decay odor, no staining. 6-12" is the same as above with no sand. — DS

13:00 Collected CC-SD01(0-6)-072513 — DS

13:05 collected CC-SD01(0-6)-072513D — DS

13:10 Collected CC-SD01(6-12)-072513D — DS

14:00 Demobilized from the site. — DS

David Seng
7-25-13

Rite in the Rain

RESIDENTIAL WELL SAMPLING FORM

Sample ID: CC-RW01-072313 Date: 7-23-13

Location/Address: 19841 SR 102 → Residence (RW-01)

Owner Name: Linda Castle Phone #: _____

Renter Name: _____ Phone #: _____

Well Information

Well Number: _____ Depth: _____

Pump Intake Depth: _____ Screened Interval: _____

Is the Water Treated? Yes (No)
(Note: if treated, sample should be collected prior to treatment)

If yes, what type of treatment system? _____

Sampling Information

Sampler(s)/Organization: D. Seha & J. Colomb

Location of Sampling Point: Outdoor Spigot on West Wall of house

Make and Model of Water Quality Meter: YSI 556 MPS

Duration of Purging: 19 minutes

Time	pH (± 0.1 S.U.)	Temp (± 0.1°C)	Cond (± 3% µS/cm)	D.O. (mg/L)	ORP (mV)	Color / Odor
11:00	7.81	19.71	402	4.33	9.9	none
11:05	7.49	15.86	391	2.19	23.8	"
11:10	7.35	14.25	383	1.35	194.8	"
11:15	7.29	14.33	384	1.43	~~120~~ 178.3	"

Time Collected	No. and Type of Containers	Preservation	Analysis
11:20	40-mL Glass	HCl	VOCs
	1-L Glass	None	SVOCs
	1-L Glass	None	Pesticides
	1-L Glass	None	PCBs
	1-L Poly	HNO_3	Metals
	1-L Poly	NaOH	Cyanide

Photo(s) Direction and Description: See Photo log

Other Observations: Flow rate = 5 gal in 66 seconds

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RESIDENTIAL WELL SAMPLING FORM

Sample ID: CC-RW02-072313 & CC-RW02-072313D Date: 7-23-13

Location/Address: 19841 SR 102 → Castle construction Facility well on Parcel -025.

Owner Name: Castle Phone #: _____

Renter Name: n/a Phone #: _____

Well Information

Well Number: _____ Depth: _____

Pump Intake Depth: _____ Screened Interval: _____

Is the Water Treated? Yes (No)
(Note: if treated, sample should be collected prior to treatment)

If yes, what type of treatment system? _____

Sampling Information

Sampler(s)/Organization: D. Sena & J. Colomb

Location of Sampling Point: Ground Spigot, Southeast corner of Facility

Make and Model of Water Quality Meter: YSI 556 mps

Duration of Purging: 22 mins

Time	pH (± 0.1 S.U.)	Temp (± 0.1°C)	Cond (± 3% µS/cm)	D.O. (mg/L)	ORP (mV)	Color / Odor
0950	6.59	16.37	687	3.90	151.6	none
0955	~~6~~ 7.10	15.70	537	2.60	62.1	"
1000	7.09	15.11	542	3.17	80.3	"
1005	7.07	15.15	543	2.24	56.6	"

Time Collected	No. and Type of Containers	Preservation	Analysis
10:15 & 10:20	40-mL Glass	HCl	VOCs
	1-L Glass	None	SVOCs
	~~1-L Glass~~	~~None~~	~~Pesticides~~
	~~1-L Glass~~	~~None~~	~~PCBs~~
	1-L Poly	HNO_3	Metals
	1-L Poly	NaOH	Cyanide

Photo(s) Direction and Description: See photolog

Other Observations: flow rate = 5gal in 38 seconds

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RESIDENTIAL WELL SAMPLING FORM

Sample ID: CC-RW03-072313 Date: 7-23-13

Location/Address: 19851 SR 102, Jeff Castle Residence (RW03)

Owner Name: Jeff Castle Phone #:

Renter Name: Phone #:

Well Information

Well Number: Depth:

Pump Intake Depth: Screened Interval:

Is the Water Treated? Yes (No)
(Note: if treated, sample should be collected prior to treatment)

If yes, what type of treatment system?

Sampling Information

Sampler(s)/Organization: D. Sena & J. Colomb

Location of Sampling Point: Outdoor Spigot on South Wall.

Make and Model of Water Quality Meter: YSI ~~MPS 5~~ 556 MPS

Duration of Purging: 22 minutes

Time	pH (± 0.1 S.U.)	Temp (± 0.1°C)	Cond (± 3% µS/cm)	D.O. (mg/L)	ORP (mV)	Color / Odor
11:40	7.64	18.13	598	2.98	35.4	none
11:45	7.82	14.39	561	3.54	16.6	"
11:50	7.82	14.12	553	2.52	-4.6	"
11:55	7.77	14.04	547	3.38	-18.0	

Time Collected	No. and Type of Containers	Preservation	Analysis
12:00	40-mL Glass	HCl	VOCs
	1-L Glass	None	SVOCs
	1-L Glass	None	Pesticides
	1-L Glass	None	PCBs
	1-L Poly	HNO_3	Metals
	1-L Poly	NaOH	Cyanide

Photo(s) Direction and Description: See Photolog

Other Observations: Flow Rate = 5 gallons in 53 seconds
MS/MSD Sample

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APPENDIX C
LABORATORY ANALYTICAL RESULTS AND DATA VALIDATION REPORTS

ESAT Controlled Number: 8SAT5.417.00559-Ap 23 Aug 13

DATE: August 23, 2013

Weston Solutions, Inc.
ATTN: **Ms. Tonya Balla**
750 East Bunker Court – Suite 500
Vernon Hills, IL 60061-1450

Site Name: **Castle Construction - IL – level 3 data validation**

Case	Lab	Samples	SDG	Matrix
43638	Mitkem	5	E0AA0	water

Analysis: trace volatiles/semivolatiles

Upon receipt of data, please check each package for completeness and note any missing deliverables below.

PLEASE! Send this form back to Sylvia Griffin, Data Management Coordinator after filling in the blanks below.

Data Received by:_____ Date:_____

PROBLEMS:

Please indicate if data is complete, and note if there are any deliverables missing from the cases noted above.

_____

_____

Received by Data Management Coordinator, CRL for file.

Signature:_____ Date:_____

FROM: **U.S. EPA - Region 5**
Sylvia Griffin
Central Regional Laboratory
536 S. Clark, 10th Floor
Chicago, IL 60605

Sent By: Pat Joyner
Data Coordinator
ESAT Region 5/**TechLaw**

Controlled Document

ESAT5.416.00285
ACA
8-22-13

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V
SUPERFUND DIVISION

DATE:

SUBJECT: Review of Data
Received for Review on: August 7, 2013

FROM: Timothy Prendiville, Supervisor (SR-6J)
Superfund Contract Management Section

TO: Data User: Weston
Email address: t.balla@westonsolutions.com

Level 3 Data Validation for EXES Database

We have reviewed the data for the following case:

Site Name: Castle Construction (IL)

Case Number: 43638 SDG Number: E0AA0

Number and Type of Samples: 5 Waters (Trace Volatiles, Semivolatiles)

Sample Numbers: E0AA0 – E0AA3, E0AA7

Laboratory: Mitkem (Spectrum Analytical) Hrs for Review: _____

Following are our findings:

CC: Howard Pham
Region 5 TPO
Mail Code: SA-5J

Case Number: 43638
Site Name: Castle Construction (IL)

SDG Number: E0AA0
Laboratory: Mitkem

Below is a summary of the out-of-control audits and the possible effects on the data for this case:

Five (5) preserved water samples labeled E0AA0 thru E0AA3, and E0AA7; were collected on July 23, 2013. The samples were received by Spectrum Analytical (Mitkem) in North Kingstown, RI on July 24, 2013. All samples were received intact and within the proper shipping temperature range of 2 - 6°.

One (1) sample, E0AA7; was analyzed for the trace volatile target compounds. The remaining four (4) samples, E0AA0 thru E0AA3; were analyzed for the trace volatile and semivolatile target compounds. All samples were analyzed according to CLP SOW SOM01.2 (6/2007) and reviewed according to the NFG for SOM01.2 and the SOP for ESAT 5/TechLaw Validation of Contract Laboratory Program Organic Data (Version 2.6.2).

Sample E0AA3 was designated by the samplers to be used for laboratory QC, i.e. MS / MSD analyses.

Sample E0AA7 was identified as a trip blank. No samples were identified as field blanks. Sample E0AA1 was identified as a field duplicate of sample E0AA0.

Case Number: 43638
Site Name: Castle Construction (IL)

SDG Number: E0AA0
Laboratory: Mitkem

1. HOLDING TIME

No problems were found.

2. GC/MS TUNING AND GC INSTRUMENT PERFORMANCE

No problems were found.

3. CALIBRATION

The following trace volatile samples are associated with an opening CCV percent difference (%D) outside criteria. The compounds were not detected in the samples. Non-detected compounds are qualified "UJ".

VBLK1A, VHBLK1A
1,1,1-Trichloroethane, Carbon tetrachloride

The following semivolatile samples are associated with an initial calibration percent relative standard deviation (%RSD) outside criteria. Detected compounds are qualified "J". Non-detected compounds are not qualified.

E0AA0, E0AA1, E0AA2, E0AA3, E0AA3MS, E0AA3MSD, SBLK4M
Pentachlorophenol

4. BLANKS

No problems were found.

5. DEUTERATED MONITORING COMPOUND AND SURROGATE RECOVERY

No problems were found.

6A. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Sample E0AA3 was designated by the samplers to be used for laboratory QC, i.e. MS / MSD analyses.

The following semivolatile matrix spike/matrix spike duplicate samples have percent recoveries greater than 100%. The compound was not detected in the unspiked sample, E0AA3. Non-detected compounds in the unspiked sample are not qualified.

E0AA3MSD
Pentachlorophenol

The following semivolatile matrix spike/matrix spike duplicate samples have percent recoveries greater than the upper acceptance criteria and less than 100%. Detected and non-detected compounds in the unspiked sample, E0AA3, are not qualified.

E0AA3MS
4-Nitrophenol

6B. LABORATORY CONTROL SAMPLE

Not applicable to the trace volatile and semivolatile analyses.

7. FIELD BLANK AND FIELD DUPLICATE

Sample E0AA7 was identified as a trip blank. No samples were identified as field blanks. No target compounds were detected in E0AA7.

Sample E0AA1 was identified as a field duplicate of sample E0AA0. Results are summarized in the following table:

Sample ID **DF** **Units** **Semivolatile Analytes**	**E0AA0** 1 ug/L	**E0AA1** 1 ug/L	**RPD**
#SVOA TICs	4	5	22

Results are not qualified based upon the results of the field duplicates.

8. INTERNAL STANDARDS

No problems were found.

9. COMPOUND IDENTIFICATION

After reviewing the mass spectra and chromatograms it appears that all trace volatile and semivolatile compounds were properly identified.

10. COMPOUND QUANTITATION AND REPORTED DETECTION LIMITS

The following trace volatile samples have compound concentrations less than the CRQL. Detected compounds are qualified "J".

VBLKX1
1,2,3-Trichlorobenzene

A library search indicates a match below 85% for a TIC compound in the semivolatile samples. Detected compounds are qualified "J".

Unknown @ 4.46
E0AA0

Unknown @ 4.74; Unknown @ 8.92
E0AA1

Unknown @ 5.18; Unknown @ 6.45; Unknown @ 13.32
E0AA3

Unknown @ 5.41; Unknown @ 5.60; Unknown @ 6.80
E0AA0, E0AA1, E0AA2, E0AA3

Unknown @ 12.98
E0AA2, E0AA3

11. SYSTEM PERFORMANCE

GC/MS baseline indicated acceptable performance.

12. ADDITIONAL INFORMATION

"Unknown" TICs were not reported in the EXES Sample Summary Report or the NFG Report #9 (TIC Report).

Case Number: 43638
Site Name: Castle Construction (IL)

SDG Number: E0AA0
Laboratory: Mitkem

CADRE Data Qualifier Sheet

Qualifiers	Data Qualifier Definitions
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J	The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the action limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a tentative identification.
NJ	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a tentative identification and the associated numerical value represents its approximate concentration.
R	The data are unusable. (The compound may or may not be present.)

Reviewed by: Christina Rice / Techlaw-ESAT
Date: August 19, 2013

Sample Summary Report

Case No:	43638	Contract:	EPW11033	SDG No:	E0AA0	Lab Code:	MITKEM
Sample Number:	E0AA0	Method:	BNA	Matrix:	Water	MA Number:	DEFAULT
Sample Location:	CC-RW02-072313	pH:	7.0	Sample Date:	07/23/2013	Sample Time:	10:15:00
% Moisture :				% Solids :			

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Benzaldehyde	5.0	ug/L	1.0	U	U	Yes	
Phenol	5.0	ug/L	1.0	U	U	Yes	
Bis(2-chloroethyl)ether	5.0	ug/L	1.0	U	U	Yes	
2-Chlorophenol	5.0	ug/L	1.0	U	U	Yes	
2-Methylphenol	5.0	ug/L	1.0	U	U	Yes	
2,2'-Oxybis(1-chloropropane)	5.0	ug/L	1.0	U	U	Yes	
Acetophenone	5.0	ug/L	1.0	U	U	Yes	
4-Methylphenol	5.0	ug/L	1.0	U	U	Yes	
N-Nitroso-di-n-propylamine	5.0	ug/L	1.0	U	U	Yes	
Hexachloroethane	5.0	ug/L	1.0	U	U	Yes	
Nitrobenzene	5.0	ug/L	1.0	U	U	Yes	
Isophorone	5.0	ug/L	1.0	U	U	Yes	
2-Nitrophenol	5.0	ug/L	1.0	U	U	Yes	
2,4-Dimethylphenol	5.0	ug/L	1.0	U	U	Yes	
Bis(2-chloroethoxy)methane	5.0	ug/L	1.0	U	U	Yes	
2,4-Dichlorophenol	5.0	ug/L	1.0	U	U	Yes	
Naphthalene	5.0	ug/L	1.0	U	U	Yes	
4-Chloroaniline	5.0	ug/L	1.0	U	U	Yes	
Hexachlorobutadiene	5.0	ug/L	1.0	U	U	Yes	
Caprolactam	5.0	ug/L	1.0	U	U	Yes	
4-Chloro-3-methylphenol	5.0	ug/L	1.0	U	U	Yes	
2-Methylnaphthalene	5.0	ug/L	1.0	U	U	Yes	
Hexachlorocyclopentadiene	5.0	ug/L	1.0	U	U	Yes	
2,4,6-Trichlorophenol	5.0	ug/L	1.0	U	U	Yes	
2,4,5-Trichlorophenol	5.0	ug/L	1.0	U	U	Yes	
1,1'-Biphenyl	5.0	ug/L	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
2-Chloronaphthalene	5.0	ug/L	1.0	U	U	Yes	
2-Nitroaniline	10	ug/L	1.0	U	U	Yes	
Dimethylphthalate	5.0	ug/L	1.0	U	U	Yes	
2,6-Dinitrotoluene	5.0	ug/L	1.0	U	U	Yes	
Acenaphthylene	5.0	ug/L	1.0	U	U	Yes	
3-Nitroaniline	10	ug/L	1.0	U	U	Yes	
Acenaphthene	5.0	ug/L	1.0	U	U	Yes	
2,4-Dinitrophenol	10	ug/L	1.0	U	U	Yes	
4-Nitrophenol	10	ug/L	1.0	U	U	Yes	
Dibenzofuran	5.0	ug/L	1.0	U	U	Yes	
2,4-Dinitrotoluene	5.0	ug/L	1.0	U	U	Yes	
Diethylphthalate	5.0	ug/L	1.0	U	U	Yes	
Fluorene	5.0	ug/L	1.0	U	U	Yes	
4-Chlorophenyl-phenylether	5.0	ug/L	1.0	U	U	Yes	
4-Nitroaniline	10	ug/L	1.0	U	U	Yes	
4,6-Dinitro-2-methylphenol	10	ug/L	1.0	U	U	Yes	
N-Nitrosodiphenylamine	5.0	ug/L	1.0	U	U	Yes	
1,2,4,5-Tetrachlorobenzene	5.0	ug/L	1.0	U	U	Yes	
4-Bromophenyl-phenylether	5.0	ug/L	1.0	U	U	Yes	
Hexachlorobenzene	5.0	ug/L	1.0	U	U	Yes	
Atrazine	5.0	ug/L	1.0	U	U	Yes	
Pentachlorophenol	10	ug/L	1.0	U	U	Yes	
Phenanthrene	5.0	ug/L	1.0	U	U	Yes	
Anthracene	5.0	ug/L	1.0	U	U	Yes	
Carbazole	5.0	ug/L	1.0	U	U	Yes	
Di-n-butylphthalate	5.0	ug/L	1.0	U	U	Yes	
Fluoranthene	5.0	ug/L	1.0	U	U	Yes	
Pyrene	5.0	ug/L	1.0	U	U	Yes	
Butylbenzylphthalate	5.0	ug/L	1.0	U	U	Yes	
3,3'-Dichlorobenzidine	5.0	ug/L	1.0	U	U	Yes	
Benzo(a)anthracene	5.0	ug/L	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Chrysene	5.0	ug/L	1.0	U	U	Yes	
Bis(2-ethylhexyl)phthalate	5.0	ug/L	1.0	U	U	Yes	
Di-n-octylphthalate	5.0	ug/L	1.0	U	U	Yes	
Benzo(b)fluoranthene	5.0	ug/L	1.0	U	U	Yes	
Benzo(k)fluoranthene	5.0	ug/L	1.0	U	U	Yes	
Benzo(a)pyrene	5.0	ug/L	1.0	U	U	Yes	
Indeno(1,2,3-cd)pyrene	5.0	ug/L	1.0	U	U	Yes	
Dibenzo(a,h)anthracene	5.0	ug/L	1.0	U	U	Yes	
Benzo(g,h,i)perylene	5.0	ug/L	1.0	U	U	Yes	
2,3,4,6-Tetrachlorophenol	5.0	ug/L	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA0	Lab Code: MITKEM
Sample Number: E0AA0	Method: VOA_Trace	Matrix: Water	MA Number: DEFAULT
Sample Location: CC-RW02-072313	pH: 2.0	Sample Date: 07/23/2013	Sample Time: 10:15:00
% Moisture :		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	0.50	ug/L	1.0	U	U	Yes	
Chloromethane	0.50	ug/L	1.0	U	U	Yes	
Vinyl chloride	0.50	ug/L	1.0	U	U	Yes	
Bromomethane	0.50	ug/L	1.0	U	U	Yes	
Chloroethane	0.50	ug/L	1.0	U	U	Yes	
Trichlorofluorom ethane	0.50	ug/L	1.0	U	U	Yes	
1,1-Dichloroethene	0.50	ug/L	1.0	U	U	Yes	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	ug/L	1.0	U	U	Yes	
Acetone	5.0	ug/L	1.0	U	U	Yes	
Carbon disulfide	0.50	ug/L	1.0	U	U	Yes	
Methyl acetate	0.50	ug/L	1.0	U	U	Yes	
Methylene chloride	0.50	ug/L	1.0	U	U	Yes	
trans-1,2-Dichloroethene	0.50	ug/L	1.0	U	U	Yes	
Methyl tert-butyl ether	0.50	ug/L	1.0	U	U	Yes	
1,1-Dichloroethane	0.50	ug/L	1.0	U	U	Yes	
cis-1,2-Dichloroethene	0.50	ug/L	1.0	U	U	Yes	
2-Butanone	5.0	ug/L	1.0	U	U	Yes	
Bromochloromet hane	0.50	ug/L	1.0	U	U	Yes	
Chloroform	0.50	ug/L	1.0	U	U	Yes	
1,1,1-Trichloroethane	0.50	ug/L	1.0	U	U	Yes	
Cyclohexane	0.50	ug/L	1.0	U	U	Yes	
Carbon tetrachloride	0.50	ug/L	1.0	U	U	Yes	
Benzene	0.50	ug/L	1.0	U	U	Yes	
1,2-Dichloroethane	0.50	ug/L	1.0	U	U	Yes	
Trichloroethene	0.50	ug/L	1.0	U	U	Yes	
Methylcyclohexa ne	0.50	ug/L	1.0	U	U	Yes	
1,2-Dichloropropane	0.50	ug/L	1.0	U	U	Yes	
Bromodichlorom ethane	0.50	ug/L	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
cis-1,3-Dichloropropene	0.50	ug/L	1.0	U	U	Yes	
4-Methyl-2-pentanone	5.0	ug/L	1.0	U	U	Yes	
Toluene	0.50	ug/L	1.0	U	U	Yes	
trans-1,3-Dichloropropene	0.50	ug/L	1.0	U	U	Yes	
1,1,2-Trichloroethane	0.50	ug/L	1.0	U	U	Yes	
Tetrachloroethene	0.50	ug/L	1.0	U	U	Yes	
2-Hexanone	5.0	ug/L	1.0	U	U	Yes	
Dibromochloromethane	0.50	ug/L	1.0	U	U	Yes	
1,2-Dibromoethane	0.50	ug/L	1.0	U	U	Yes	
Chlorobenzene	0.50	ug/L	1.0	U	U	Yes	
Ethylbenzene	0.50	ug/L	1.0	U	U	Yes	
o-Xylene	0.50	ug/L	1.0	U	U	Yes	
m,p-Xylene	0.50	ug/L	1.0	U	U	Yes	
Styrene	0.50	ug/L	1.0	U	U	Yes	
Bromoform	0.50	ug/L	1.0	U	U	Yes	
Isopropylbenzene	0.50	ug/L	1.0	U	U	Yes	
1,1,2,2-Tetrachloroethane	0.50	ug/L	1.0	U	U	Yes	
1,3-Dichlorobenzene	0.50	ug/L	1.0	U	U	Yes	
1,4-Dichlorobenzene	0.50	ug/L	1.0	U	U	Yes	
1,2-Dichlorobenzene	0.50	ug/L	1.0	U	U	Yes	
1,2-Dibromo-3-chloropropane	0.50	ug/L	1.0	U	U	Yes	
1,2,4-Trichlorobenzene	0.50	ug/L	1.0	U	U	Yes	
1,2,3-Trichlorobenzene	0.50	ug/L	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA0	Lab Code: MITKEM
Sample Number: E0AA1	Method: BNA	Matrix: Water	MA Number: DEFAULT
Sample Location: CC-RW02-072313D	pH: 7.0	Sample Date: 07/23/2013	Sample Time: 10:20:00
% Moisture :		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Benzaldehyde	5.0	ug/L	1.0	U	U	Yes	
Phenol	5.0	ug/L	1.0	U	U	Yes	
Bis(2-chloroethyl)ether	5.0	ug/L	1.0	U	U	Yes	
2-Chlorophenol	5.0	ug/L	1.0	U	U	Yes	
2-Methylphenol	5.0	ug/L	1.0	U	U	Yes	
2,2'-Oxybis(1-chloropropane)	5.0	ug/L	1.0	U	U	Yes	
Acetophenone	5.0	ug/L	1.0	U	U	Yes	
4-Methylphenol	5.0	ug/L	1.0	U	U	Yes	
N-Nitroso-di-n-propylamine	5.0	ug/L	1.0	U	U	Yes	
Hexachloroethane	5.0	ug/L	1.0	U	U	Yes	
Nitrobenzene	5.0	ug/L	1.0	U	U	Yes	
Isophorone	5.0	ug/L	1.0	U	U	Yes	
2-Nitrophenol	5.0	ug/L	1.0	U	U	Yes	
2,4-Dimethylphenol	5.0	ug/L	1.0	U	U	Yes	
Bis(2-chloroethoxy)methane	5.0	ug/L	1.0	U	U	Yes	
2,4-Dichlorophenol	5.0	ug/L	1.0	U	U	Yes	
Naphthalene	5.0	ug/L	1.0	U	U	Yes	
4-Chloroaniline	5.0	ug/L	1.0	U	U	Yes	
Hexachlorobutadiene	5.0	ug/L	1.0	U	U	Yes	
Caprolactam	5.0	ug/L	1.0	U	U	Yes	
4-Chloro-3-methylphenol	5.0	ug/L	1.0	U	U	Yes	
2-Methylnaphthalene	5.0	ug/L	1.0	U	U	Yes	
Hexachlorocyclopentadiene	5.0	ug/L	1.0	U	U	Yes	
2,4,6-Trichlorophenol	5.0	ug/L	1.0	U	U	Yes	
2,4,5-Trichlorophenol	5.0	ug/L	1.0	U	U	Yes	
1,1'-Biphenyl	5.0	ug/L	1.0	U	U	Yes	
2-Chloronaphthalene	5.0	ug/L	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
2-Nitroaniline	10	ug/L	1.0	U	U	Yes	
Dimethylphthalate	5.0	ug/L	1.0	U	U	Yes	
2,6-Dinitrotoluene	5.0	ug/L	1.0	U	U	Yes	
Acenaphthylene	5.0	ug/L	1.0	U	U	Yes	
3-Nitroaniline	10	ug/L	1.0	U	U	Yes	
Acenaphthene	5.0	ug/L	1.0	U	U	Yes	
2,4-Dinitrophenol	10	ug/L	1.0	U	U	Yes	
4-Nitrophenol	10	ug/L	1.0	U	U	Yes	
Dibenzofuran	5.0	ug/L	1.0	U	U	Yes	
2,4-Dinitrotoluene	5.0	ug/L	1.0	U	U	Yes	
Diethylphthalate	5.0	ug/L	1.0	U	U	Yes	
Fluorene	5.0	ug/L	1.0	U	U	Yes	
4-Chlorophenyl-phenylether	5.0	ug/L	1.0	U	U	Yes	
4-Nitroaniline	10	ug/L	1.0	U	U	Yes	
4,6-Dinitro-2-methylphenol	10	ug/L	1.0	U	U	Yes	
N-Nitrosodiphenylamine	5.0	ug/L	1.0	U	U	Yes	
1,2,4,5-Tetrachlorobenzene	5.0	ug/L	1.0	U	U	Yes	
4-Bromophenyl-phenylether	5.0	ug/L	1.0	U	U	Yes	
Hexachlorobenzene	5.0	ug/L	1.0	U	U	Yes	
Atrazine	5.0	ug/L	1.0	U	U	Yes	
Pentachlorophenol	10	ug/L	1.0	U	U	Yes	
Phenanthrene	5.0	ug/L	1.0	U	U	Yes	
Anthracene	5.0	ug/L	1.0	U	U	Yes	
Carbazole	5.0	ug/L	1.0	U	U	Yes	
Di-n-butylphthalate	5.0	ug/L	1.0	U	U	Yes	
Fluoranthene	5.0	ug/L	1.0	U	U	Yes	
Pyrene	5.0	ug/L	1.0	U	U	Yes	
Butylbenzylphthalate	5.0	ug/L	1.0	U	U	Yes	
3,3'-Dichlorobenzidine	5.0	ug/L	1.0	U	U	Yes	
Benzo(a)anthracene	5.0	ug/L	1.0	U	U	Yes	
Chrysene	5.0	ug/L	1.0	U	U	Yes	
Bis(2-ethylhexyl)	5.0	ug/L	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
phthalate	5.0	ug/L	1.0	U	U	Yes	
Di-n-octylphthalate	5.0	ug/L	1.0	U	U	Yes	
Benzo(b)fluoranthene	5.0	ug/L	1.0	U	U	Yes	
Benzo(k)fluoranthene	5.0	ug/L	1.0	U	U	Yes	
Benzo(a)pyrene	5.0	ug/L	1.0	U	U	Yes	
Indeno(1,2,3-cd)pyrene	5.0	ug/L	1.0	U	U	Yes	
Dibenzo(a,h)anthracene	5.0	ug/L	1.0	U	U	Yes	
Benzo(g,h,i)perylene	5.0	ug/L	1.0	U	U	Yes	
2,3,4,6-Tetrachlorophenol	5.0	ug/L	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA0	Lab Code: MITKEM
Sample Number: E0AA1	Method: VOA_Trace	Matrix: Water	MA Number: DEFAULT
Sample Location: CC-RW02-072313D	pH: 2.0	Sample Date: 07/23/2013	Sample Time: 10:20:00
% Moisture :		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	0.50	ug/L	1.0	U	U	Yes	
Chloromethane	0.50	ug/L	1.0	U	U	Yes	
Vinyl chloride	0.50	ug/L	1.0	U	U	Yes	
Bromomethane	0.50	ug/L	1.0	U	U	Yes	
Chloroethane	0.50	ug/L	1.0	U	U	Yes	
Trichlorofluorom ethane	0.50	ug/L	1.0	U	U	Yes	
1,1-Dichloroethene	0.50	ug/L	1.0	U	U	Yes	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	ug/L	1.0	U	U	Yes	
Acetone	5.0	ug/L	1.0	U	U	Yes	
Carbon disulfide	0.50	ug/L	1.0	U	U	Yes	
Methyl acetate	0.50	ug/L	1.0	U	U	Yes	
Methylene chloride	0.50	ug/L	1.0	U	U	Yes	
trans-1,2-Dichloroethene	0.50	ug/L	1.0	U	U	Yes	
Methyl tert-butyl ether	0.50	ug/L	1.0	U	U	Yes	
1,1-Dichloroethane	0.50	ug/L	1.0	U	U	Yes	
cis-1,2-Dichloroethene	0.50	ug/L	1.0	U	U	Yes	
2-Butanone	5.0	ug/L	1.0	U	U	Yes	
Bromochloromet hane	0.50	ug/L	1.0	U	U	Yes	
Chloroform	0.50	ug/L	1.0	U	U	Yes	
1,1,1-Trichloroethane	0.50	ug/L	1.0	U	U	Yes	
Cyclohexane	0.50	ug/L	1.0	U	U	Yes	
Carbon tetrachloride	0.50	ug/L	1.0	U	U	Yes	
Benzene	0.50	ug/L	1.0	U	U	Yes	
1,2-Dichloroethane	0.50	ug/L	1.0	U	U	Yes	
Trichloroethene	0.50	ug/L	1.0	U	U	Yes	
Methylcyclohexa ne	0.50	ug/L	1.0	U	U	Yes	
1,2-Dichloropropane	0.50	ug/L	1.0	U	U	Yes	
Bromodichlorom ethane	0.50	ug/L	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
cis-1,3-Dichloropropene	0.50	ug/L	1.0	U	U	Yes	
4-Methyl-2-pentanone	5.0	ug/L	1.0	U	U	Yes	
Toluene	0.50	ug/L	1.0	U	U	Yes	
trans-1,3-Dichloropropene	0.50	ug/L	1.0	U	U	Yes	
1,1,2-Trichloroethane	0.50	ug/L	1.0	U	U	Yes	
Tetrachloroethene	0.50	ug/L	1.0	U	U	Yes	
2-Hexanone	5.0	ug/L	1.0	U	U	Yes	
Dibromochloromethane	0.50	ug/L	1.0	U	U	Yes	
1,2-Dibromoethane	0.50	ug/L	1.0	U	U	Yes	
Chlorobenzene	0.50	ug/L	1.0	U	U	Yes	
Ethylbenzene	0.50	ug/L	1.0	U	U	Yes	
o-Xylene	0.50	ug/L	1.0	U	U	Yes	
m,p-Xylene	0.50	ug/L	1.0	U	U	Yes	
Styrene	0.50	ug/L	1.0	U	U	Yes	
Bromoform	0.50	ug/L	1.0	U	U	Yes	
Isopropylbenzene	0.50	ug/L	1.0	U	U	Yes	
1,1,2,2-Tetrachloroethane	0.50	ug/L	1.0	U	U	Yes	
1,3-Dichlorobenzene	0.50	ug/L	1.0	U	U	Yes	
1,4-Dichlorobenzene	0.50	ug/L	1.0	U	U	Yes	
1,2-Dichlorobenzene	0.50	ug/L	1.0	U	U	Yes	
1,2-Dibromo-3-chloropropane	0.50	ug/L	1.0	U	U	Yes	
1,2,4-Trichlorobenzene	0.50	ug/L	1.0	U	U	Yes	
1,2,3-Trichlorobenzene	0.50	ug/L	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA0	Lab Code: MITKEM
Sample Number: E0AA2	Method: BNA	Matrix: Water	MA Number: DEFAULT
Sample Location: CC-RW01-072313	pH: 7.0	Sample Date: 07/23/2013	Sample Time: 11:20:00
% Moisture :		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Benzaldehyde	5.0	ug/L	1.0	U	U	Yes	
Phenol	5.0	ug/L	1.0	U	U	Yes	
Bis(2-chloroethyl)ether	5.0	ug/L	1.0	U	U	Yes	
2-Chlorophenol	5.0	ug/L	1.0	U	U	Yes	
2-Methylphenol	5.0	ug/L	1.0	U	U	Yes	
2,2'-Oxybis(1-chloropropane)	5.0	ug/L	1.0	U	U	Yes	
Acetophenone	5.0	ug/L	1.0	U	U	Yes	
4-Methylphenol	5.0	ug/L	1.0	U	U	Yes	
N-Nitroso-di-n-propylamine	5.0	ug/L	1.0	U	U	Yes	
Hexachloroethane	5.0	ug/L	1.0	U	U	Yes	
Nitrobenzene	5.0	ug/L	1.0	U	U	Yes	
Isophorone	5.0	ug/L	1.0	U	U	Yes	
2-Nitrophenol	5.0	ug/L	1.0	U	U	Yes	
2,4-Dimethylphenol	5.0	ug/L	1.0	U	U	Yes	
Bis(2-chloroethoxy)methane	5.0	ug/L	1.0	U	U	Yes	
2,4-Dichlorophenol	5.0	ug/L	1.0	U	U	Yes	
Naphthalene	5.0	ug/L	1.0	U	U	Yes	
4-Chloroaniline	5.0	ug/L	1.0	U	U	Yes	
Hexachlorobutadiene	5.0	ug/L	1.0	U	U	Yes	
Caprolactam	5.0	ug/L	1.0	U	U	Yes	
4-Chloro-3-methylphenol	5.0	ug/L	1.0	U	U	Yes	
2-Methylnaphthalene	5.0	ug/L	1.0	U	U	Yes	
Hexachlorocyclopentadiene	5.0	ug/L	1.0	U	U	Yes	
2,4,6-Trichlorophenol	5.0	ug/L	1.0	U	U	Yes	
2,4,5-Trichlorophenol	5.0	ug/L	1.0	U	U	Yes	
1,1'-Biphenyl	5.0	ug/L	1.0	U	U	Yes	
2-Chloronaphthalene	5.0	ug/L	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
2-Nitroaniline	10	ug/L	1.0	U	U	Yes	
Dimethylphthalate	5.0	ug/L	1.0	U	U	Yes	
2,6-Dinitrotoluene	5.0	ug/L	1.0	U	U	Yes	
Acenaphthylene	5.0	ug/L	1.0	U	U	Yes	
3-Nitroaniline	10	ug/L	1.0	U	U	Yes	
Acenaphthene	5.0	ug/L	1.0	U	U	Yes	
2,4-Dinitrophenol	10	ug/L	1.0	U	U	Yes	
4-Nitrophenol	10	ug/L	1.0	U	U	Yes	
Dibenzofuran	5.0	ug/L	1.0	U	U	Yes	
2,4-Dinitrotoluene	5.0	ug/L	1.0	U	U	Yes	
Diethylphthalate	5.0	ug/L	1.0	U	U	Yes	
Fluorene	5.0	ug/L	1.0	U	U	Yes	
4-Chlorophenyl-phenylether	5.0	ug/L	1.0	U	U	Yes	
4-Nitroaniline	10	ug/L	1.0	U	U	Yes	
4,6-Dinitro-2-methylphenol	10	ug/L	1.0	U	U	Yes	
N-Nitrosodiphenylamine	5.0	ug/L	1.0	U	U	Yes	
1,2,4,5-Tetrachlorobenzene	5.0	ug/L	1.0	U	U	Yes	
4-Bromophenyl-phenylether	5.0	ug/L	1.0	U	U	Yes	
Hexachlorobenzene	5.0	ug/L	1.0	U	U	Yes	
Atrazine	5.0	ug/L	1.0	U	U	Yes	
Pentachlorophenol	10	ug/L	1.0	U	U	Yes	
Phenanthrene	5.0	ug/L	1.0	U	U	Yes	
Anthracene	5.0	ug/L	1.0	U	U	Yes	
Carbazole	5.0	ug/L	1.0	U	U	Yes	
Di-n-butylphthalate	5.0	ug/L	1.0	U	U	Yes	
Fluoranthene	5.0	ug/L	1.0	U	U	Yes	
Pyrene	5.0	ug/L	1.0	U	U	Yes	
Butylbenzylphthalate	5.0	ug/L	1.0	U	U	Yes	
3,3'-Dichlorobenzidine	5.0	ug/L	1.0	U	U	Yes	
Benzo(a)anthracene	5.0	ug/L	1.0	U	U	Yes	
Chrysene	5.0	ug/L	1.0	U	U	Yes	
Bis(2-ethylhexyl)	5.0	ug/L	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
phthalate	5.0	ug/L	1.0	U	U	Yes	
Di-n-octylphthalate	5.0	ug/L	1.0	U	U	Yes	
Benzo(b)fluoranthene	5.0	ug/L	1.0	U	U	Yes	
Benzo(k)fluoranthene	5.0	ug/L	1.0	U	U	Yes	
Benzo(a)pyrene	5.0	ug/L	1.0	U	U	Yes	
Indeno(1,2,3-cd)pyrene	5.0	ug/L	1.0	U	U	Yes	
Dibenzo(a,h)anthracene	5.0	ug/L	1.0	U	U	Yes	
Benzo(g,h,i)perylene	5.0	ug/L	1.0	U	U	Yes	
2,3,4,6-Tetrachlorophenol	5.0	ug/L	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA0	Lab Code: MITKEM
Sample Number: E0AA2	Method: VOA_Trace	Matrix: Water	MA Number: DEFAULT
Sample Location: CC-RW01-072313	pH: 2.0	Sample Date: 07/23/2013	Sample Time: 11:20:00
% Moisture :		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	0.50	ug/L	1.0	U	U	Yes	
Chloromethane	0.50	ug/L	1.0	U	U	Yes	
Vinyl chloride	0.50	ug/L	1.0	U	U	Yes	
Bromomethane	0.50	ug/L	1.0	U	U	Yes	
Chloroethane	0.50	ug/L	1.0	U	U	Yes	
Trichlorofluorom ethane	0.50	ug/L	1.0	U	U	Yes	
1,1-Dichloroethene	0.50	ug/L	1.0	U	U	Yes	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	ug/L	1.0	U	U	Yes	
Acetone	5.0	ug/L	1.0	U	U	Yes	
Carbon disulfide	0.50	ug/L	1.0	U	U	Yes	
Methyl acetate	0.50	ug/L	1.0	U	U	Yes	
Methylene chloride	0.50	ug/L	1.0	U	U	Yes	
trans-1,2-Dichloroethene	0.50	ug/L	1.0	U	U	Yes	
Methyl tert-butyl ether	0.50	ug/L	1.0	U	U	Yes	
1,1-Dichloroethane	0.50	ug/L	1.0	U	U	Yes	
cis-1,2-Dichloroethene	0.50	ug/L	1.0	U	U	Yes	
2-Butanone	5.0	ug/L	1.0	U	U	Yes	
Bromochloromet hane	0.50	ug/L	1.0	U	U	Yes	
Chloroform	0.50	ug/L	1.0	U	U	Yes	
1,1,1-Trichloroethane	0.50	ug/L	1.0	U	U	Yes	
Cyclohexane	0.50	ug/L	1.0	U	U	Yes	
Carbon tetrachloride	0.50	ug/L	1.0	U	U	Yes	
Benzene	0.50	ug/L	1.0	U	U	Yes	
1,2-Dichloroethane	0.50	ug/L	1.0	U	U	Yes	
Trichloroethene	0.50	ug/L	1.0	U	U	Yes	
Methylcyclohexa ne	0.50	ug/L	1.0	U	U	Yes	
1,2-Dichloropropane	0.50	ug/L	1.0	U	U	Yes	
Bromodichlorom ethane	0.50	ug/L	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
cis-1,3-Dichloropropene	0.50	ug/L	1.0	U	U	Yes	
4-Methyl-2-pentanone	5.0	ug/L	1.0	U	U	Yes	
Toluene	0.50	ug/L	1.0	U	U	Yes	
trans-1,3-Dichloropropene	0.50	ug/L	1.0	U	U	Yes	
1,1,2-Trichloroethane	0.50	ug/L	1.0	U	U	Yes	
Tetrachloroethene	0.50	ug/L	1.0	U	U	Yes	
2-Hexanone	5.0	ug/L	1.0	U	U	Yes	
Dibromochloromethane	0.50	ug/L	1.0	U	U	Yes	
1,2-Dibromoethane	0.50	ug/L	1.0	U	U	Yes	
Chlorobenzene	0.50	ug/L	1.0	U	U	Yes	
Ethylbenzene	0.50	ug/L	1.0	U	U	Yes	
o-Xylene	0.50	ug/L	1.0	U	U	Yes	
m,p-Xylene	0.50	ug/L	1.0	U	U	Yes	
Styrene	0.50	ug/L	1.0	U	U	Yes	
Bromoform	0.50	ug/L	1.0	U	U	Yes	
Isopropylbenzene	0.50	ug/L	1.0	U	U	Yes	
1,1,2,2-Tetrachloroethane	0.50	ug/L	1.0	U	U	Yes	
1,3-Dichlorobenzene	0.50	ug/L	1.0	U	U	Yes	
1,4-Dichlorobenzene	0.50	ug/L	1.0	U	U	Yes	
1,2-Dichlorobenzene	0.50	ug/L	1.0	U	U	Yes	
1,2-Dibromo-3-chloropropane	0.50	ug/L	1.0	U	U	Yes	
1,2,4-Trichlorobenzene	0.50	ug/L	1.0	U	U	Yes	
1,2,3-Trichlorobenzene	0.50	ug/L	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA0	Lab Code: MITKEM
Sample Number: E0AA3	Method: BNA	Matrix: Water	MA Number: DEFAULT
Sample Location: CC-RW03-072313	pH: 7.0	Sample Date: 07/23/2013	Sample Time: 12:00:00
% Moisture :		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Benzaldehyde	5.0	ug/L	1.0	U	U	Yes	
Phenol	5.0	ug/L	1.0	U	U	Yes	
Bis(2-chloroethyl)ether	5.0	ug/L	1.0	U	U	Yes	
2-Chlorophenol	5.0	ug/L	1.0	U	U	Yes	
2-Methylphenol	5.0	ug/L	1.0	U	U	Yes	
2,2'-Oxybis(1-chloropropane)	5.0	ug/L	1.0	U	U	Yes	
Acetophenone	5.0	ug/L	1.0	U	U	Yes	
4-Methylphenol	5.0	ug/L	1.0	U	U	Yes	
N-Nitroso-di-n-propylamine	5.0	ug/L	1.0	U	U	Yes	
Hexachloroethane	5.0	ug/L	1.0	U	U	Yes	
Nitrobenzene	5.0	ug/L	1.0	U	U	Yes	
Isophorone	5.0	ug/L	1.0	U	U	Yes	
2-Nitrophenol	5.0	ug/L	1.0	U	U	Yes	
2,4-Dimethylphenol	5.0	ug/L	1.0	U	U	Yes	
Bis(2-chloroethoxy)methane	5.0	ug/L	1.0	U	U	Yes	
2,4-Dichlorophenol	5.0	ug/L	1.0	U	U	Yes	
Naphthalene	5.0	ug/L	1.0	U	U	Yes	
4-Chloroaniline	5.0	ug/L	1.0	U	U	Yes	
Hexachlorobutadiene	5.0	ug/L	1.0	U	U	Yes	
Caprolactam	5.0	ug/L	1.0	U	U	Yes	
4-Chloro-3-methylphenol	5.0	ug/L	1.0	U	U	Yes	
2-Methylnaphthalene	5.0	ug/L	1.0	U	U	Yes	
Hexachlorocyclopentadiene	5.0	ug/L	1.0	U	U	Yes	
2,4,6-Trichlorophenol	5.0	ug/L	1.0	U	U	Yes	
2,4,5-Trichlorophenol	5.0	ug/L	1.0	U	U	Yes	
1,1'-Biphenyl	5.0	ug/L	1.0	U	U	Yes	
2-Chloronaphthalene	5.0	ug/L	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
2-Nitroaniline	10	ug/L	1.0	U	U	Yes	
Dimethylphthalate	5.0	ug/L	1.0	U	U	Yes	
2,6-Dinitrotoluene	5.0	ug/L	1.0	U	U	Yes	
Acenaphthylene	5.0	ug/L	1.0	U	U	Yes	
3-Nitroaniline	10	ug/L	1.0	U	U	Yes	
Acenaphthene	5.0	ug/L	1.0	U	U	Yes	
2,4-Dinitrophenol	10	ug/L	1.0	U	U	Yes	
4-Nitrophenol	10	ug/L	1.0	U	U	Yes	
Dibenzofuran	5.0	ug/L	1.0	U	U	Yes	
2,4-Dinitrotoluene	5.0	ug/L	1.0	U	U	Yes	
Diethylphthalate	5.0	ug/L	1.0	U	U	Yes	
Fluorene	5.0	ug/L	1.0	U	U	Yes	
4-Chlorophenyl-phenylether	5.0	ug/L	1.0	U	U	Yes	
4-Nitroaniline	10	ug/L	1.0	U	U	Yes	
4,6-Dinitro-2-methylphenol	10	ug/L	1.0	U	U	Yes	
N-Nitrosodiphenylamine	5.0	ug/L	1.0	U	U	Yes	
1,2,4,5-Tetrachlorobenzene	5.0	ug/L	1.0	U	U	Yes	
4-Bromophenyl-phenylether	5.0	ug/L	1.0	U	U	Yes	
Hexachlorobenzene	5.0	ug/L	1.0	U	U	Yes	
Atrazine	5.0	ug/L	1.0	U	U	Yes	
Pentachlorophenol	10	ug/L	1.0	U	U	Yes	
Phenanthrene	5.0	ug/L	1.0	U	U	Yes	
Anthracene	5.0	ug/L	1.0	U	U	Yes	
Carbazole	5.0	ug/L	1.0	U	U	Yes	
Di-n-butylphthalate	5.0	ug/L	1.0	U	U	Yes	
Fluoranthene	5.0	ug/L	1.0	U	U	Yes	
Pyrene	5.0	ug/L	1.0	U	U	Yes	
Butylbenzylphthalate	5.0	ug/L	1.0	U	U	Yes	
3,3'-Dichlorobenzidine	5.0	ug/L	1.0	U	U	Yes	
Benzo(a)anthracene	5.0	ug/L	1.0	U	U	Yes	
Chrysene	5.0	ug/L	1.0	U	U	Yes	
Bis(2-ethylhexyl)	5.0	ug/L	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
phthalate	5.0	ug/L	1.0	U	U	Yes	
Di-n-octylphthalate	5.0	ug/L	1.0	U	U	Yes	
Benzo(b)fluoranthene	5.0	ug/L	1.0	U	U	Yes	
Benzo(k)fluoranthene	5.0	ug/L	1.0	U	U	Yes	
Benzo(a)pyrene	5.0	ug/L	1.0	U	U	Yes	
Indeno(1,2,3-cd)pyrene	5.0	ug/L	1.0	U	U	Yes	
Dibenzo(a,h)anthracene	5.0	ug/L	1.0	U	U	Yes	
Benzo(g,h,i)perylene	5.0	ug/L	1.0	U	U	Yes	
2,3,4,6-Tetrachlorophenol	5.0	ug/L	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA0	Lab Code: MITKEM
Sample Number: E0AA3	Method: VOA_Trace	Matrix: Water	MA Number: DEFAULT
Sample Location: CC-RW03-072313	pH: 2.0	Sample Date: 07/23/2013	Sample Time: 12:00:00
% Moisture :		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	0.50	ug/L	1.0	U	U	Yes	
Chloromethane	0.50	ug/L	1.0	U	U	Yes	
Vinyl chloride	0.50	ug/L	1.0	U	U	Yes	
Bromomethane	0.50	ug/L	1.0	U	U	Yes	
Chloroethane	0.50	ug/L	1.0	U	U	Yes	
Trichlorofluorom ethane	0.50	ug/L	1.0	U	U	Yes	
1,1-Dichloroethene	0.50	ug/L	1.0	U	U	Yes	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	ug/L	1.0	U	U	Yes	
Acetone	5.0	ug/L	1.0	U	U	Yes	
Carbon disulfide	0.50	ug/L	1.0	U	U	Yes	
Methyl acetate	0.50	ug/L	1.0	U	U	Yes	
Methylene chloride	0.50	ug/L	1.0	U	U	Yes	
trans-1,2-Dichloroethene	0.50	ug/L	1.0	U	U	Yes	
Methyl tert-butyl ether	0.50	ug/L	1.0	U	U	Yes	
1,1-Dichloroethane	0.50	ug/L	1.0	U	U	Yes	
cis-1,2-Dichloroethene	0.50	ug/L	1.0	U	U	Yes	
2-Butanone	5.0	ug/L	1.0	U	U	Yes	
Bromochloromet hane	0.50	ug/L	1.0	U	U	Yes	
Chloroform	0.50	ug/L	1.0	U	U	Yes	
1,1,1-Trichloroethane	0.50	ug/L	1.0	U	U	Yes	
Cyclohexane	0.50	ug/L	1.0	U	U	Yes	
Carbon tetrachloride	0.50	ug/L	1.0	U	U	Yes	
Benzene	0.50	ug/L	1.0	U	U	Yes	
1,2-Dichloroethane	0.50	ug/L	1.0	U	U	Yes	
Trichloroethene	0.50	ug/L	1.0	U	U	Yes	
Methylcyclohexa ne	0.50	ug/L	1.0	U	U	Yes	
1,2-Dichloropropane	0.50	ug/L	1.0	U	U	Yes	
Bromodichlorom ethane	0.50	ug/L	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
cis-1,3-Dichloropropene	0.50	ug/L	1.0	U	U	Yes	
4-Methyl-2-pentanone	5.0	ug/L	1.0	U	U	Yes	
Toluene	0.50	ug/L	1.0	U	U	Yes	
trans-1,3-Dichloropropene	0.50	ug/L	1.0	U	U	Yes	
1,1,2-Trichloroethane	0.50	ug/L	1.0	U	U	Yes	
Tetrachloroethene	0.50	ug/L	1.0	U	U	Yes	
2-Hexanone	5.0	ug/L	1.0	U	U	Yes	
Dibromochloromethane	0.50	ug/L	1.0	U	U	Yes	
1,2-Dibromoethane	0.50	ug/L	1.0	U	U	Yes	
Chlorobenzene	0.50	ug/L	1.0	U	U	Yes	
Ethylbenzene	0.50	ug/L	1.0	U	U	Yes	
o-Xylene	0.50	ug/L	1.0	U	U	Yes	
m,p-Xylene	0.50	ug/L	1.0	U	U	Yes	
Styrene	0.50	ug/L	1.0	U	U	Yes	
Bromoform	0.50	ug/L	1.0	U	U	Yes	
Isopropylbenzene	0.50	ug/L	1.0	U	U	Yes	
1,1,2,2-Tetrachloroethane	0.50	ug/L	1.0	U	U	Yes	
1,3-Dichlorobenzene	0.50	ug/L	1.0	U	U	Yes	
1,4-Dichlorobenzene	0.50	ug/L	1.0	U	U	Yes	
1,2-Dichlorobenzene	0.50	ug/L	1.0	U	U	Yes	
1,2-Dibromo-3-chloropropane	0.50	ug/L	1.0	U	U	Yes	
1,2,4-Trichlorobenzene	0.50	ug/L	1.0	U	U	Yes	
1,2,3-Trichlorobenzene	0.50	ug/L	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA0	Lab Code: MITKEM
Sample Number: E0AA3MS	Method: BNA	Matrix: Water	MA Number: DEFAULT
Sample Location: CC-RW03-072313	pH: 7.0	Sample Date: 07/23/2013	Sample Time: 12:00:00
% Moisture :		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Phenol	29	ug/L	1.0			Yes	
Benzaldehyde	5.0	ug/L	1.0	U	U	Yes	
2-Chlorophenol	30	ug/L	1.0			Yes	
Bis(2-chloroethyl)ether	5.0	ug/L	1.0	U	U	Yes	
N-Nitroso-di-n-propylamine	24	ug/L	1.0			Yes	
4-Chloro-3-methylphenol	32	ug/L	1.0			Yes	
2-Methylphenol	5.0	ug/L	1.0	U	U	Yes	
Acenaphthene	28	ug/L	1.0			Yes	
4-Nitrophenol	35	ug/L	1.0			Yes	
2,2'-Oxybis(1-chloropropane)	5.0	ug/L	1.0	U	U	Yes	
2,4-Dinitrotoluene	33	ug/L	1.0			Yes	
Acetophenone	5.0	ug/L	1.0	U	U	Yes	
4-Methylphenol	5.0	ug/L	1.0	U	U	Yes	
Pentachlorophenol	40	ug/L	1.0		J	Yes	
Pyrene	20	ug/L	1.0			Yes	
Hexachloroethane	5.0	ug/L	1.0	U	U	Yes	
Nitrobenzene	5.0	ug/L	1.0	U	U	Yes	
Isophorone	5.0	ug/L	1.0	U	U	Yes	
2-Nitrophenol	5.0	ug/L	1.0	U	U	Yes	
2,4-Dimethylphenol	5.0	ug/L	1.0	U	U	Yes	
Bis(2-chloroethoxy)methane	5.0	ug/L	1.0	U	U	Yes	
2,4-Dichlorophenol	5.0	ug/L	1.0	U	U	Yes	
Naphthalene	5.0	ug/L	1.0	U	U	Yes	
4-Chloroaniline	5.0	ug/L	1.0	U	U	Yes	
Hexachlorobutadiene	5.0	ug/L	1.0	U	U	Yes	
Caprolactam	5.0	ug/L	1.0	U	U	Yes	
2-Methylnaphthalene	5.0	ug/L	1.0	U	U	Yes	
Hexachlorocyclopentadiene	5.0	ug/L	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
2,4,6-Trichlorophenol	5.0	ug/L	1.0	U	U	Yes	
2,4,5-Trichlorophenol	5.0	ug/L	1.0	U	U	Yes	
1,1'-Biphenyl	5.0	ug/L	1.0	U	U	Yes	
2-Chloronaphthalene	5.0	ug/L	1.0	U	U	Yes	
2-Nitroaniline	10	ug/L	1.0	U	U	Yes	
Dimethylphthalate	5.0	ug/L	1.0	U	U	Yes	
2,6-Dinitrotoluene	5.0	ug/L	1.0	U	U	Yes	
Acenaphthylene	5.0	ug/L	1.0	U	U	Yes	
3-Nitroaniline	10	ug/L	1.0	U	U	Yes	
2,4-Dinitrophenol	10	ug/L	1.0	U	U	Yes	
Dibenzofuran	5.0	ug/L	1.0	U	U	Yes	
Diethylphthalate	5.0	ug/L	1.0	U	U	Yes	
Fluorene	5.0	ug/L	1.0	U	U	Yes	
4-Chlorophenyl-phenylether	5.0	ug/L	1.0	U	U	Yes	
4-Nitroaniline	10	ug/L	1.0	U	U	Yes	
4,6-Dinitro-2-methylphenol	10	ug/L	1.0	U	U	Yes	
N-Nitrosodiphenylamine	5.0	ug/L	1.0	U	U	Yes	
1,2,4,5-Tetrachlorobenzene	5.0	ug/L	1.0	U	U	Yes	
4-Bromophenyl-phenylether	5.0	ug/L	1.0	U	U	Yes	
Hexachlorobenzene	5.0	ug/L	1.0	U	U	Yes	
Atrazine	5.0	ug/L	1.0	U	U	Yes	
Phenanthrene	5.0	ug/L	1.0	U	U	Yes	
Anthracene	5.0	ug/L	1.0	U	U	Yes	
Carbazole	5.0	ug/L	1.0	U	U	Yes	
Di-n-butylphthalate	5.0	ug/L	1.0	U	U	Yes	
Fluoranthene	5.0	ug/L	1.0	U	U	Yes	
Butylbenzylphthalate	5.0	ug/L	1.0	U	U	Yes	
3,3'-Dichlorobenzidine	5.0	ug/L	1.0	U	U	Yes	
Benzo(a)anthracene	5.0	ug/L	1.0	U	U	Yes	
Chrysene	5.0	ug/L	1.0	U	U	Yes	
Bis(2-ethylhexyl)	5.0	ug/L	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
phthalate	5.0	ug/L	1.0	U	U	Yes	
Di-n-octylphthalate	5.0	ug/L	1.0	U	U	Yes	
Benzo(b)fluoranthene	5.0	ug/L	1.0	U	U	Yes	
Benzo(k)fluoranthene	5.0	ug/L	1.0	U	U	Yes	
Benzo(a)pyrene	5.0	ug/L	1.0	U	U	Yes	
Indeno(1,2,3-cd)pyrene	5.0	ug/L	1.0	U	U	Yes	
Dibenzo(a,h)anthracene	5.0	ug/L	1.0	U	U	Yes	
Benzo(g,h,i)perylene	5.0	ug/L	1.0	U	U	Yes	
2,3,4,6-Tetrachlorophenol	5.0	ug/L	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA0	Lab Code: MITKEM
Sample Number: E0AA3MS	Method: VOA_Trace	Matrix: Water	MA Number: DEFAULT
Sample Location: CC-RW03-072313	pH: 2.0	Sample Date: 07/23/2013	Sample Time: 12:00:00
% Moisture :		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	0.50	ug/L	1.0	U	U	Yes	
1,1-Dichloroethene	3.9	ug/L	1.0			Yes	
Chloromethane	0.50	ug/L	1.0	U	U	Yes	
Benzene	4.6	ug/L	1.0			Yes	
Vinyl chloride	0.50	ug/L	1.0	U	U	Yes	
Trichloroethene	4.3	ug/L	1.0			Yes	
Bromomethane	0.50	ug/L	1.0	U	U	Yes	
Toluene	4.7	ug/L	1.0			Yes	
Chloroethane	0.50	ug/L	1.0	U	U	Yes	
Chlorobenzene	4.5	ug/L	1.0			Yes	
Trichlorofluorom ethane	0.50	ug/L	1.0	U	U	Yes	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	ug/L	1.0	U	U	Yes	
Acetone	5.0	ug/L	1.0	U	U	Yes	
Carbon disulfide	0.50	ug/L	1.0	U	U	Yes	
Methyl acetate	0.50	ug/L	1.0	U	U	Yes	
Methylene chloride	0.50	ug/L	1.0	U	U	Yes	
trans-1,2-Dichloroethene	0.50	ug/L	1.0	U	U	Yes	
Methyl tert-butyl ether	0.50	ug/L	1.0	U	U	Yes	
1,1-Dichloroethane	0.50	ug/L	1.0	U	U	Yes	
cis-1,2-Dichloroethene	0.50	ug/L	1.0	U	U	Yes	
2-Butanone	5.0	ug/L	1.0	U	U	Yes	
Bromochloromet hane	0.50	ug/L	1.0	U	U	Yes	
Chloroform	0.50	ug/L	1.0	U	U	Yes	
1,1,1-Trichloroethane	0.50	ug/L	1.0	U	U	Yes	
Cyclohexane	0.50	ug/L	1.0	U	U	Yes	
Carbon tetrachloride	0.50	ug/L	1.0	U	U	Yes	
1,2-Dichloroethane	0.50	ug/L	1.0	U	U	Yes	
Methylcyclohexa ne	0.50	ug/L	1.0	U	U	Yes	
1,2-Dichloropropane	0.50	ug/L	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Bromodichloromethane	0.50	ug/L	1.0	U	U	Yes	
cis-1,3-Dichloropropene	0.50	ug/L	1.0	U	U	Yes	
4-Methyl-2-pentanone	5.0	ug/L	1.0	U	U	Yes	
trans-1,3-Dichloropropene	0.50	ug/L	1.0	U	U	Yes	
1,1,2-Trichloroethane	0.50	ug/L	1.0	U	U	Yes	
Tetrachloroethene	0.50	ug/L	1.0	U	U	Yes	
2-Hexanone	5.0	ug/L	1.0	U	U	Yes	
Dibromochloromethane	0.50	ug/L	1.0	U	U	Yes	
1,2-Dibromoethane	0.50	ug/L	1.0	U	U	Yes	
Ethylbenzene	0.50	ug/L	1.0	U	U	Yes	
o-Xylene	0.50	ug/L	1.0	U	U	Yes	
m,p-Xylene	0.50	ug/L	1.0	U	U	Yes	
Styrene	0.50	ug/L	1.0	U	U	Yes	
Bromoform	0.50	ug/L	1.0	U	U	Yes	
Isopropylbenzene	0.50	ug/L	1.0	U	U	Yes	
1,1,2,2-Tetrachloroethane	0.50	ug/L	1.0	U	U	Yes	
1,3-Dichlorobenzene	0.50	ug/L	1.0	U	U	Yes	
1,4-Dichlorobenzene	0.50	ug/L	1.0	U	U	Yes	
1,2-Dichlorobenzene	0.50	ug/L	1.0	U	U	Yes	
1,2-Dibromo-3-chloropropane	0.50	ug/L	1.0	U	U	Yes	
1,2,4-Trichlorobenzene	0.50	ug/L	1.0	U	U	Yes	
1,2,3-Trichlorobenzene	0.50	ug/L	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA0	Lab Code: MITKEM
Sample Number: E0AA3MSD	Method: VOA_Trace	Matrix: Water	MA Number: DEFAULT
Sample Location: CC-RW03-072313	pH: 2.0	Sample Date: 07/23/2013	Sample Time: 12:00:00
% Moisture :		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	0.50	ug/L	1.0	U	U	Yes	
1,1-Dichloroethene	3.6	ug/L	1.0			Yes	
Chloromethane	0.50	ug/L	1.0	U	U	Yes	
Benzene	4.3	ug/L	1.0			Yes	
Vinyl chloride	0.50	ug/L	1.0	U	U	Yes	
Trichloroethene	4.1	ug/L	1.0			Yes	
Toluene	4.4	ug/L	1.0			Yes	
Bromomethane	0.50	ug/L	1.0	U	U	Yes	
Chlorobenzene	4.1	ug/L	1.0			Yes	
Chloroethane	0.50	ug/L	1.0	U	U	Yes	
Trichlorofluorom ethane	0.50	ug/L	1.0	U	U	Yes	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	ug/L	1.0	U	U	Yes	
Acetone	5.0	ug/L	1.0	U	U	Yes	
Carbon disulfide	0.50	ug/L	1.0	U	U	Yes	
Methyl acetate	0.50	ug/L	1.0	U	U	Yes	
Methylene chloride	0.50	ug/L	1.0	U	U	Yes	
trans-1,2-Dichloroethene	0.50	ug/L	1.0	U	U	Yes	
Methyl tert-butyl ether	0.50	ug/L	1.0	U	U	Yes	
1,1-Dichloroethane	0.50	ug/L	1.0	U	U	Yes	
cis-1,2-Dichloroethene	0.50	ug/L	1.0	U	U	Yes	
2-Butanone	5.0	ug/L	1.0	U	U	Yes	
Bromochloromet hane	0.50	ug/L	1.0	U	U	Yes	
Chloroform	0.50	ug/L	1.0	U	U	Yes	
1,1,1-Trichloroethane	0.50	ug/L	1.0	U	U	Yes	
Cyclohexane	0.50	ug/L	1.0	U	U	Yes	
Carbon tetrachloride	0.50	ug/L	1.0	U	U	Yes	
1,2-Dichloroethane	0.50	ug/L	1.0	U	U	Yes	
Methylcyclohexa ne	0.50	ug/L	1.0	U	U	Yes	
1,2-Dichloropropane	0.50	ug/L	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Bromodichloromethane	0.50	ug/L	1.0	U	U	Yes	
cis-1,3-Dichloropropene	0.50	ug/L	1.0	U	U	Yes	
4-Methyl-2-pentanone	5.0	ug/L	1.0	U	U	Yes	
trans-1,3-Dichloropropene	0.50	ug/L	1.0	U	U	Yes	
1,1,2-Trichloroethane	0.50	ug/L	1.0	U	U	Yes	
Tetrachloroethene	0.50	ug/L	1.0	U	U	Yes	
2-Hexanone	5.0	ug/L	1.0	U	U	Yes	
Dibromochloromethane	0.50	ug/L	1.0	U	U	Yes	
1,2-Dibromoethane	0.50	ug/L	1.0	U	U	Yes	
Ethylbenzene	0.50	ug/L	1.0	U	U	Yes	
o-Xylene	0.50	ug/L	1.0	U	U	Yes	
m,p-Xylene	0.50	ug/L	1.0	U	U	Yes	
Styrene	0.50	ug/L	1.0	U	U	Yes	
Bromoform	0.50	ug/L	1.0	U	U	Yes	
Isopropylbenzene	0.50	ug/L	1.0	U	U	Yes	
1,1,2,2-Tetrachloroethane	0.50	ug/L	1.0	U	U	Yes	
1,3-Dichlorobenzene	0.50	ug/L	1.0	U	U	Yes	
1,4-Dichlorobenzene	0.50	ug/L	1.0	U	U	Yes	
1,2-Dichlorobenzene	0.50	ug/L	1.0	U	U	Yes	
1,2-Dibromo-3-chloropropane	0.50	ug/L	1.0	U	U	Yes	
1,2,4-Trichlorobenzene	0.50	ug/L	1.0	U	U	Yes	
1,2,3-Trichlorobenzene	0.50	ug/L	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA0	Lab Code: MITKEM
Sample Number: E0AA3MSD	Method: BNA	Matrix: Water	MA Number: DEFAULT
Sample Location: CC-RW03-072313	pH: 7.0	Sample Date: 07/23/2013	Sample Time: 12:00:00
% Moisture :		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Benzaldehyde	5.0	ug/L	1.0	U	U	Yes	
Phenol	33	ug/L	1.0			Yes	
2-Chlorophenol	34	ug/L	1.0			Yes	
Bis(2-chloroethyl)ether	5.0	ug/L	1.0	U	U	Yes	
N-Nitroso-di-n-propylamine	29	ug/L	1.0			Yes	
4-Chloro-3-methylphenol	32	ug/L	1.0			Yes	
Acenaphthene	29	ug/L	1.0			Yes	
2-Methylphenol	5.0	ug/L	1.0	U	U	Yes	
4-Nitrophenol	32	ug/L	1.0			Yes	
2,2'-Oxybis(1-chloropropane)	5.0	ug/L	1.0	U	U	Yes	
2,4-Dinitrotoluene	29	ug/L	1.0			Yes	
Acetophenone	5.0	ug/L	1.0	U	U	Yes	
4-Methylphenol	5.0	ug/L	1.0	U	U	Yes	
Pentachlorophenol	45	ug/L	1.0		J	Yes	
Pyrene	20	ug/L	1.0			Yes	
Hexachloroethane	5.0	ug/L	1.0	U	U	Yes	
Nitrobenzene	5.0	ug/L	1.0	U	U	Yes	
Isophorone	5.0	ug/L	1.0	U	U	Yes	
2-Nitrophenol	5.0	ug/L	1.0	U	U	Yes	
2,4-Dimethylphenol	5.0	ug/L	1.0	U	U	Yes	
Bis(2-chloroethoxy)methane	5.0	ug/L	1.0	U	U	Yes	
2,4-Dichlorophenol	5.0	ug/L	1.0	U	U	Yes	
Naphthalene	5.0	ug/L	1.0	U	U	Yes	
4-Chloroaniline	5.0	ug/L	1.0	U	U	Yes	
Hexachlorobutadiene	5.0	ug/L	1.0	U	U	Yes	
Caprolactam	5.0	ug/L	1.0	U	U	Yes	
2-Methylnaphthalene	5.0	ug/L	1.0	U	U	Yes	
Hexachlorocyclopentadiene	5.0	ug/L	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
2,4,6-Trichlorophenol	5.0	ug/L	1.0	U	U	Yes	
2,4,5-Trichlorophenol	5.0	ug/L	1.0	U	U	Yes	
1,1'-Biphenyl	5.0	ug/L	1.0	U	U	Yes	
2-Chloronaphthalene	5.0	ug/L	1.0	U	U	Yes	
2-Nitroaniline	10	ug/L	1.0	U	U	Yes	
Dimethylphthalate	5.0	ug/L	1.0	U	U	Yes	
2,6-Dinitrotoluene	5.0	ug/L	1.0	U	U	Yes	
Acenaphthylene	5.0	ug/L	1.0	U	U	Yes	
3-Nitroaniline	10	ug/L	1.0	U	U	Yes	
2,4-Dinitrophenol	10	ug/L	1.0	U	U	Yes	
Dibenzofuran	5.0	ug/L	1.0	U	U	Yes	
Diethylphthalate	5.0	ug/L	1.0	U	U	Yes	
Fluorene	5.0	ug/L	1.0	U	U	Yes	
4-Chlorophenyl-phenylether	5.0	ug/L	1.0	U	U	Yes	
4-Nitroaniline	10	ug/L	1.0	U	U	Yes	
4,6-Dinitro-2-methylphenol	10	ug/L	1.0	U	U	Yes	
N-Nitrosodiphenylamine	5.0	ug/L	1.0	U	U	Yes	
1,2,4,5-Tetrachlorobenzene	5.0	ug/L	1.0	U	U	Yes	
4-Bromophenyl-phenylether	5.0	ug/L	1.0	U	U	Yes	
Hexachlorobenzene	5.0	ug/L	1.0	U	U	Yes	
Atrazine	5.0	ug/L	1.0	U	U	Yes	
Phenanthrene	5.0	ug/L	1.0	U	U	Yes	
Anthracene	5.0	ug/L	1.0	U	U	Yes	
Carbazole	5.0	ug/L	1.0	U	U	Yes	
Di-n-butylphthalate	5.0	ug/L	1.0	U	U	Yes	
Fluoranthene	5.0	ug/L	1.0	U	U	Yes	
Butylbenzylphthalate	5.0	ug/L	1.0	U	U	Yes	
3,3'-Dichlorobenzidine	5.0	ug/L	1.0	U	U	Yes	
Benzo(a)anthracene	5.0	ug/L	1.0	U	U	Yes	
Chrysene	5.0	ug/L	1.0	U	U	Yes	
Bis(2-ethylhexyl)	5.0	ug/L	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
phthalate	5.0	ug/L	1.0	U	U	Yes	
Di-n-octylphthalate	5.0	ug/L	1.0	U	U	Yes	
Benzo(b)fluoranthene	5.0	ug/L	1.0	U	U	Yes	
Benzo(k)fluoranthene	5.0	ug/L	1.0	U	U	Yes	
Benzo(a)pyrene	5.0	ug/L	1.0	U	U	Yes	
Indeno(1,2,3-cd)pyrene	5.0	ug/L	1.0	U	U	Yes	
Dibenzo(a,h)anthracene	5.0	ug/L	1.0	U	U	Yes	
Benzo(g,h,i)perylene	5.0	ug/L	1.0	U	U	Yes	
2,3,4,6-Tetrachlorophenol	5.0	ug/L	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA0	Lab Code: MITKEM
Sample Number: E0AA7	Method: VOA_Trace	Matrix: Water	MA Number: DEFAULT
Sample Location: CC-TB01	pH: 2.0	Sample Date: 07/23/2013	Sample Time: 17:00:00
% Moisture :		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	0.50	ug/L	1.0	U	U	Yes	
Chloromethane	0.50	ug/L	1.0	U	U	Yes	
Vinyl chloride	0.50	ug/L	1.0	U	U	Yes	
Bromomethane	0.50	ug/L	1.0	U	U	Yes	
Chloroethane	0.50	ug/L	1.0	U	U	Yes	
Trichlorofluorom ethane	0.50	ug/L	1.0	U	U	Yes	
1,1-Dichloroethene	0.50	ug/L	1.0	U	U	Yes	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	ug/L	1.0	U	U	Yes	
Acetone	5.0	ug/L	1.0	U	U	Yes	
Carbon disulfide	0.50	ug/L	1.0	U	U	Yes	
Methyl acetate	0.50	ug/L	1.0	U	U	Yes	
Methylene chloride	0.50	ug/L	1.0	U	U	Yes	
trans-1,2-Dichloroethene	0.50	ug/L	1.0	U	U	Yes	
Methyl tert-butyl ether	0.50	ug/L	1.0	U	U	Yes	
1,1-Dichloroethane	0.50	ug/L	1.0	U	U	Yes	
cis-1,2-Dichloroethene	0.50	ug/L	1.0	U	U	Yes	
2-Butanone	5.0	ug/L	1.0	U	U	Yes	
Bromochloromet hane	0.50	ug/L	1.0	U	U	Yes	
Chloroform	0.50	ug/L	1.0	U	U	Yes	
1,1,1-Trichloroethane	0.50	ug/L	1.0	U	U	Yes	
Cyclohexane	0.50	ug/L	1.0	U	U	Yes	
Carbon tetrachloride	0.50	ug/L	1.0	U	U	Yes	
Benzene	0.50	ug/L	1.0	U	U	Yes	
1,2-Dichloroethane	0.50	ug/L	1.0	U	U	Yes	
Trichloroethene	0.50	ug/L	1.0	U	U	Yes	
Methylcyclohexa ne	0.50	ug/L	1.0	U	U	Yes	
1,2-Dichloropropane	0.50	ug/L	1.0	U	U	Yes	
Bromodichlorom ethane	0.50	ug/L	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
cis-1,3-Dichloropropene	0.50	ug/L	1.0	U	U	Yes	
4-Methyl-2-pentanone	5.0	ug/L	1.0	U	U	Yes	
Toluene	0.50	ug/L	1.0	U	U	Yes	
trans-1,3-Dichloropropene	0.50	ug/L	1.0	U	U	Yes	
1,1,2-Trichloroethane	0.50	ug/L	1.0	U	U	Yes	
Tetrachloroethene	0.50	ug/L	1.0	U	U	Yes	
2-Hexanone	5.0	ug/L	1.0	U	U	Yes	
Dibromochloromethane	0.50	ug/L	1.0	U	U	Yes	
1,2-Dibromoethane	0.50	ug/L	1.0	U	U	Yes	
Chlorobenzene	0.50	ug/L	1.0	U	U	Yes	
Ethylbenzene	0.50	ug/L	1.0	U	U	Yes	
o-Xylene	0.50	ug/L	1.0	U	U	Yes	
m,p-Xylene	0.50	ug/L	1.0	U	U	Yes	
Styrene	0.50	ug/L	1.0	U	U	Yes	
Bromoform	0.50	ug/L	1.0	U	U	Yes	
Isopropylbenzene	0.50	ug/L	1.0	U	U	Yes	
1,1,2,2-Tetrachloroethane	0.50	ug/L	1.0	U	U	Yes	
1,3-Dichlorobenzene	0.50	ug/L	1.0	U	U	Yes	
1,4-Dichlorobenzene	0.50	ug/L	1.0	U	U	Yes	
1,2-Dichlorobenzene	0.50	ug/L	1.0	U	U	Yes	
1,2-Dibromo-3-chloropropane	0.50	ug/L	1.0	U	U	Yes	
1,2,4-Trichlorobenzene	0.50	ug/L	1.0	U	U	Yes	
1,2,3-Trichlorobenzene	0.50	ug/L	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA0	Lab Code: MITKEM
Sample Number: SBLK4M	Method: BNA	Matrix: Water	MA Number: DEFAULT
Sample Location:	pH: 7.0	Sample Date:	Sample Time:
% Moisture :		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Benzaldehyde	5.0	ug/L	1.0	U	U	Yes	
Phenol	5.0	ug/L	1.0	U	U	Yes	
Bis(2-chloroethyl)ether	5.0	ug/L	1.0	U	U	Yes	
2-Chlorophenol	5.0	ug/L	1.0	U	U	Yes	
2-Methylphenol	5.0	ug/L	1.0	U	U	Yes	
2,2'-Oxybis(1-chloropropane)	5.0	ug/L	1.0	U	U	Yes	
Acetophenone	5.0	ug/L	1.0	U	U	Yes	
4-Methylphenol	5.0	ug/L	1.0	U	U	Yes	
N-Nitroso-di-n-propylamine	5.0	ug/L	1.0	U	U	Yes	
Hexachloroethane	5.0	ug/L	1.0	U	U	Yes	
Nitrobenzene	5.0	ug/L	1.0	U	U	Yes	
Isophorone	5.0	ug/L	1.0	U	U	Yes	
2-Nitrophenol	5.0	ug/L	1.0	U	U	Yes	
2,4-Dimethylphenol	5.0	ug/L	1.0	U	U	Yes	
Bis(2-chloroethoxy)methane	5.0	ug/L	1.0	U	U	Yes	
2,4-Dichlorophenol	5.0	ug/L	1.0	U	U	Yes	
Naphthalene	5.0	ug/L	1.0	U	U	Yes	
4-Chloroaniline	5.0	ug/L	1.0	U	U	Yes	
Hexachlorobutadiene	5.0	ug/L	1.0	U	U	Yes	
Caprolactam	5.0	ug/L	1.0	U	U	Yes	
4-Chloro-3-methylphenol	5.0	ug/L	1.0	U	U	Yes	
2-Methylnaphthalene	5.0	ug/L	1.0	U	U	Yes	
Hexachlorocyclopentadiene	5.0	ug/L	1.0	U	U	Yes	
2,4,6-Trichlorophenol	5.0	ug/L	1.0	U	U	Yes	
2,4,5-Trichlorophenol	5.0	ug/L	1.0	U	U	Yes	
1,1'-Biphenyl	5.0	ug/L	1.0	U	U	Yes	
2-Chloronaphthalene	5.0	ug/L	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
2-Nitroaniline	10	ug/L	1.0	U	U	Yes	
Dimethylphthalate	5.0	ug/L	1.0	U	U	Yes	
2,6-Dinitrotoluene	5.0	ug/L	1.0	U	U	Yes	
Acenaphthylene	5.0	ug/L	1.0	U	U	Yes	
3-Nitroaniline	10	ug/L	1.0	U	U	Yes	
Acenaphthene	5.0	ug/L	1.0	U	U	Yes	
2,4-Dinitrophenol	10	ug/L	1.0	U	U	Yes	
4-Nitrophenol	10	ug/L	1.0	U	U	Yes	
Dibenzofuran	5.0	ug/L	1.0	U	U	Yes	
2,4-Dinitrotoluene	5.0	ug/L	1.0	U	U	Yes	
Diethylphthalate	5.0	ug/L	1.0	U	U	Yes	
Fluorene	5.0	ug/L	1.0	U	U	Yes	
4-Chlorophenyl-phenylether	5.0	ug/L	1.0	U	U	Yes	
4-Nitroaniline	10	ug/L	1.0	U	U	Yes	
4,6-Dinitro-2-methylphenol	10	ug/L	1.0	U	U	Yes	
N-Nitrosodiphenylamine	5.0	ug/L	1.0	U	U	Yes	
1,2,4,5-Tetrachlorobenzene	5.0	ug/L	1.0	U	U	Yes	
4-Bromophenyl-phenylether	5.0	ug/L	1.0	U	U	Yes	
Hexachlorobenzene	5.0	ug/L	1.0	U	U	Yes	
Atrazine	5.0	ug/L	1.0	U	U	Yes	
Pentachlorophenol	10	ug/L	1.0	U	U	Yes	
Phenanthrene	5.0	ug/L	1.0	U	U	Yes	
Anthracene	5.0	ug/L	1.0	U	U	Yes	
Carbazole	5.0	ug/L	1.0	U	U	Yes	
Di-n-butylphthalate	5.0	ug/L	1.0	U	U	Yes	
Fluoranthene	5.0	ug/L	1.0	U	U	Yes	
Pyrene	5.0	ug/L	1.0	U	U	Yes	
Butylbenzylphthalate	5.0	ug/L	1.0	U	U	Yes	
3,3'-Dichlorobenzidine	5.0	ug/L	1.0	U	U	Yes	
Benzo(a)anthracene	5.0	ug/L	1.0	U	U	Yes	
Chrysene	5.0	ug/L	1.0	U	U	Yes	
Bis(2-ethylhexyl)	5.0	ug/L	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
phthalate	5.0	ug/L	1.0	U	U	Yes	
Di-n-octylphthalate	5.0	ug/L	1.0	U	U	Yes	
Benzo(b)fluoranthene	5.0	ug/L	1.0	U	U	Yes	
Benzo(k)fluoranthene	5.0	ug/L	1.0	U	U	Yes	
Benzo(a)pyrene	5.0	ug/L	1.0	U	U	Yes	
Indeno(1,2,3-cd)pyrene	5.0	ug/L	1.0	U	U	Yes	
Dibenzo(a,h)anthracene	5.0	ug/L	1.0	U	U	Yes	
Benzo(g,h,i)perylene	5.0	ug/L	1.0	U	U	Yes	
2,3,4,6-Tetrachlorophenol	5.0	ug/L	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA0	Lab Code: MITKEM
Sample Number: VBLK1A	Method: VOA_Trace	Matrix: Water	MA Number: DEFAULT
Sample Location:	pH: 7.0	Sample Date:	Sample Time:
% Moisture :		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	0.50	ug/L	1.0	U	U	Yes	
Chloromethane	0.50	ug/L	1.0	U	U	Yes	
Vinyl chloride	0.50	ug/L	1.0	U	U	Yes	
Bromomethane	0.50	ug/L	1.0	U	U	Yes	
Chloroethane	0.50	ug/L	1.0	U	U	Yes	
Trichlorofluorom ethane	0.50	ug/L	1.0	U	U	Yes	
1,1-Dichloroethene	0.50	ug/L	1.0	U	U	Yes	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	ug/L	1.0	U	U	Yes	
Acetone	5.0	ug/L	1.0	U	U	Yes	
Carbon disulfide	0.50	ug/L	1.0	U	U	Yes	
Methyl acetate	0.50	ug/L	1.0	U	U	Yes	
Methylene chloride	0.50	ug/L	1.0	U	U	Yes	
trans-1,2-Dichloroethene	0.50	ug/L	1.0	U	U	Yes	
Methyl tert-butyl ether	0.50	ug/L	1.0	U	U	Yes	
1,1-Dichloroethane	0.50	ug/L	1.0	U	U	Yes	
cis-1,2-Dichloroethene	0.50	ug/L	1.0	U	U	Yes	
2-Butanone	5.0	ug/L	1.0	U	U	Yes	
Bromochloromet hane	0.50	ug/L	1.0	U	U	Yes	
Chloroform	0.50	ug/L	1.0	U	U	Yes	
1,1,1-Trichloroethane	0.50	ug/L	1.0	U	UJ	Yes	
Cyclohexane	0.50	ug/L	1.0	U	U	Yes	
Carbon tetrachloride	0.50	ug/L	1.0	U	UJ	Yes	
Benzene	0.50	ug/L	1.0	U	U	Yes	
1,2-Dichloroethane	0.50	ug/L	1.0	U	U	Yes	
Trichloroethene	0.50	ug/L	1.0	U	U	Yes	
Methylcyclohexa ne	0.50	ug/L	1.0	U	U	Yes	
1,2-Dichloropropane	0.50	ug/L	1.0	U	U	Yes	
Bromodichlorom ethane	0.50	ug/L	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
cis-1,3-Dichloropropene	0.50	ug/L	1.0	U	U	Yes	
4-Methyl-2-pentanone	5.0	ug/L	1.0	U	U	Yes	
Toluene	0.50	ug/L	1.0	U	U	Yes	
trans-1,3-Dichloropropene	0.50	ug/L	1.0	U	U	Yes	
1,1,2-Trichloroethane	0.50	ug/L	1.0	U	U	Yes	
Tetrachloroethene	0.50	ug/L	1.0	U	U	Yes	
2-Hexanone	5.0	ug/L	1.0	U	U	Yes	
Dibromochloromethane	0.50	ug/L	1.0	U	U	Yes	
1,2-Dibromoethane	0.50	ug/L	1.0	U	U	Yes	
Chlorobenzene	0.50	ug/L	1.0	U	U	Yes	
Ethylbenzene	0.50	ug/L	1.0	U	U	Yes	
o-Xylene	0.50	ug/L	1.0	U	U	Yes	
m,p-Xylene	0.50	ug/L	1.0	U	U	Yes	
Styrene	0.50	ug/L	1.0	U	U	Yes	
Bromoform	0.50	ug/L	1.0	U	U	Yes	
Isopropylbenzene	0.50	ug/L	1.0	U	U	Yes	
1,1,2,2-Tetrachloroethane	0.50	ug/L	1.0	U	U	Yes	
1,3-Dichlorobenzene	0.50	ug/L	1.0	U	U	Yes	
1,4-Dichlorobenzene	0.50	ug/L	1.0	U	U	Yes	
1,2-Dichlorobenzene	0.50	ug/L	1.0	U	U	Yes	
1,2-Dibromo-3-chloropropane	0.50	ug/L	1.0	U	U	Yes	
1,2,4-Trichlorobenzene	0.50	ug/L	1.0	U	U	Yes	
1,2,3-Trichlorobenzene	0.50	ug/L	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA0	Lab Code: MITKEM
Sample Number: VBLKX1	Method: VOA_Trace	Matrix: Water	MA Number: DEFAULT
Sample Location:	pH: 7.0	Sample Date:	Sample Time:
% Moisture :		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	0.50	ug/L	1.0	U	U	Yes	
Chloromethane	0.50	ug/L	1.0	U	U	Yes	
Vinyl chloride	0.50	ug/L	1.0	U	U	Yes	
Bromomethane	0.50	ug/L	1.0	U	U	Yes	
Chloroethane	0.50	ug/L	1.0	U	U	Yes	
Trichlorofluorom ethane	0.50	ug/L	1.0	U	U	Yes	
1,1-Dichloroethene	0.50	ug/L	1.0	U	U	Yes	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	ug/L	1.0	U	U	Yes	
Acetone	5.0	ug/L	1.0	U	U	Yes	
Carbon disulfide	0.50	ug/L	1.0	U	U	Yes	
Methyl acetate	0.50	ug/L	1.0	U	U	Yes	
Methylene chloride	0.50	ug/L	1.0	U	U	Yes	
trans-1,2-Dichloroethene	0.50	ug/L	1.0	U	U	Yes	
Methyl tert-butyl ether	0.50	ug/L	1.0	U	U	Yes	
1,1-Dichloroethane	0.50	ug/L	1.0	U	U	Yes	
cis-1,2-Dichloroethene	0.50	ug/L	1.0	U	U	Yes	
2-Butanone	5.0	ug/L	1.0	U	U	Yes	
Bromochloromet hane	0.50	ug/L	1.0	U	U	Yes	
Chloroform	0.50	ug/L	1.0	U	U	Yes	
1,1,1-Trichloroethane	0.50	ug/L	1.0	U	U	Yes	
Cyclohexane	0.50	ug/L	1.0	U	U	Yes	
Carbon tetrachloride	0.50	ug/L	1.0	U	U	Yes	
Benzene	0.50	ug/L	1.0	U	U	Yes	
1,2-Dichloroethane	0.50	ug/L	1.0	U	U	Yes	
Trichloroethene	0.50	ug/L	1.0	U	U	Yes	
Methylcyclohexa ne	0.50	ug/L	1.0	U	U	Yes	
1,2-Dichloropropane	0.50	ug/L	1.0	U	U	Yes	
Bromodichlorom ethane	0.50	ug/L	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
cis-1,3-Dichloropropene	0.50	ug/L	1.0	U	U	Yes	
4-Methyl-2-pentanone	5.0	ug/L	1.0	U	U	Yes	
Toluene	0.50	ug/L	1.0	U	U	Yes	
trans-1,3-Dichloropropene	0.50	ug/L	1.0	U	U	Yes	
1,1,2-Trichloroethane	0.50	ug/L	1.0	U	U	Yes	
Tetrachloroethene	0.50	ug/L	1.0	U	U	Yes	
2-Hexanone	5.0	ug/L	1.0	U	U	Yes	
Dibromochloromethane	0.50	ug/L	1.0	U	U	Yes	
1,2-Dibromoethane	0.50	ug/L	1.0	U	U	Yes	
Chlorobenzene	0.50	ug/L	1.0	U	U	Yes	
Ethylbenzene	0.50	ug/L	1.0	U	U	Yes	
o-Xylene	0.50	ug/L	1.0	U	U	Yes	
m,p-Xylene	0.50	ug/L	1.0	U	U	Yes	
Styrene	0.50	ug/L	1.0	U	U	Yes	
Bromoform	0.50	ug/L	1.0	U	U	Yes	
Isopropylbenzene	0.50	ug/L	1.0	U	U	Yes	
1,1,2,2-Tetrachloroethane	0.50	ug/L	1.0	U	U	Yes	
1,3-Dichlorobenzene	0.50	ug/L	1.0	U	U	Yes	
1,4-Dichlorobenzene	0.50	ug/L	1.0	U	U	Yes	
1,2-Dichlorobenzene	0.50	ug/L	1.0	U	U	Yes	
1,2-Dibromo-3-chloropropane	0.50	ug/L	1.0	U	U	Yes	
1,2,4-Trichlorobenzene	0.50	ug/L	1.0	U	U	Yes	
1,2,3-Trichlorobenzene	0.25	ug/L	1.0	J	J	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA0	Lab Code: MITKEM
Sample Number: VBLKZ1	Method: VOA_Trace	Matrix: Water	MA Number: DEFAULT
Sample Location:	pH: 7.0	Sample Date:	Sample Time:
% Moisture :		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	0.50	ug/L	1.0	U	U	Yes	
Chloromethane	0.50	ug/L	1.0	U	U	Yes	
Vinyl chloride	0.50	ug/L	1.0	U	U	Yes	
Bromomethane	0.50	ug/L	1.0	U	U	Yes	
Chloroethane	0.50	ug/L	1.0	U	U	Yes	
Trichlorofluorom ethane	0.50	ug/L	1.0	U	U	Yes	
1,1-Dichloroethene	0.50	ug/L	1.0	U	U	Yes	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	ug/L	1.0	U	U	Yes	
Acetone	5.0	ug/L	1.0	U	U	Yes	
Carbon disulfide	0.50	ug/L	1.0	U	U	Yes	
Methyl acetate	0.50	ug/L	1.0	U	U	Yes	
Methylene chloride	0.50	ug/L	1.0	U	U	Yes	
trans-1,2-Dichloroethene	0.50	ug/L	1.0	U	U	Yes	
Methyl tert-butyl ether	0.50	ug/L	1.0	U	U	Yes	
1,1-Dichloroethane	0.50	ug/L	1.0	U	U	Yes	
cis-1,2-Dichloroethene	0.50	ug/L	1.0	U	U	Yes	
2-Butanone	5.0	ug/L	1.0	U	U	Yes	
Bromochloromet hane	0.50	ug/L	1.0	U	U	Yes	
Chloroform	0.50	ug/L	1.0	U	U	Yes	
1,1,1-Trichloroethane	0.50	ug/L	1.0	U	U	Yes	
Cyclohexane	0.50	ug/L	1.0	U	U	Yes	
Carbon tetrachloride	0.50	ug/L	1.0	U	U	Yes	
Benzene	0.50	ug/L	1.0	U	U	Yes	
1,2-Dichloroethane	0.50	ug/L	1.0	U	U	Yes	
Trichloroethene	0.50	ug/L	1.0	U	U	Yes	
Methylcyclohexa ne	0.50	ug/L	1.0	U	U	Yes	
1,2-Dichloropropane	0.50	ug/L	1.0	U	U	Yes	
Bromodichlorom ethane	0.50	ug/L	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
cis-1,3-Dichloropropene	0.50	ug/L	1.0	U	U	Yes	
4-Methyl-2-pentanone	5.0	ug/L	1.0	U	U	Yes	
Toluene	0.50	ug/L	1.0	U	U	Yes	
trans-1,3-Dichloropropene	0.50	ug/L	1.0	U	U	Yes	
1,1,2-Trichloroethane	0.50	ug/L	1.0	U	U	Yes	
Tetrachloroethene	0.50	ug/L	1.0	U	U	Yes	
2-Hexanone	5.0	ug/L	1.0	U	U	Yes	
Dibromochloromethane	0.50	ug/L	1.0	U	U	Yes	
1,2-Dibromoethane	0.50	ug/L	1.0	U	U	Yes	
Chlorobenzene	0.50	ug/L	1.0	U	U	Yes	
Ethylbenzene	0.50	ug/L	1.0	U	U	Yes	
o-Xylene	0.50	ug/L	1.0	U	U	Yes	
m,p-Xylene	0.50	ug/L	1.0	U	U	Yes	
Styrene	0.50	ug/L	1.0	U	U	Yes	
Bromoform	0.50	ug/L	1.0	U	U	Yes	
Isopropylbenzene	0.50	ug/L	1.0	U	U	Yes	
1,1,2,2-Tetrachloroethane	0.50	ug/L	1.0	U	U	Yes	
1,3-Dichlorobenzene	0.50	ug/L	1.0	U	U	Yes	
1,4-Dichlorobenzene	0.50	ug/L	1.0	U	U	Yes	
1,2-Dichlorobenzene	0.50	ug/L	1.0	U	U	Yes	
1,2-Dibromo-3-chloropropane	0.50	ug/L	1.0	U	U	Yes	
1,2,4-Trichlorobenzene	0.50	ug/L	1.0	U	U	Yes	
1,2,3-Trichlorobenzene	0.50	ug/L	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA0	Lab Code: MITKEM
Sample Number: VHBLK1A	Method: VOA_Trace	Matrix: Water	MA Number: DEFAULT
Sample Location:	pH: 7.0	Sample Date:	Sample Time:
% Moisture :		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	0.50	ug/L	1.0	U	U	Yes	
Chloromethane	0.50	ug/L	1.0	U	U	Yes	
Vinyl chloride	0.50	ug/L	1.0	U	U	Yes	
Bromomethane	0.50	ug/L	1.0	U	U	Yes	
Chloroethane	0.50	ug/L	1.0	U	U	Yes	
Trichlorofluorom ethane	0.50	ug/L	1.0	U	U	Yes	
1,1-Dichloroethene	0.50	ug/L	1.0	U	U	Yes	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	ug/L	1.0	U	U	Yes	
Acetone	5.0	ug/L	1.0	U	U	Yes	
Carbon disulfide	0.50	ug/L	1.0	U	U	Yes	
Methyl acetate	0.50	ug/L	1.0	U	U	Yes	
Methylene chloride	0.50	ug/L	1.0	U	U	Yes	
trans-1,2-Dichloroethene	0.50	ug/L	1.0	U	U	Yes	
Methyl tert-butyl ether	0.50	ug/L	1.0	U	U	Yes	
1,1-Dichloroethane	0.50	ug/L	1.0	U	U	Yes	
cis-1,2-Dichloroethene	0.50	ug/L	1.0	U	U	Yes	
2-Butanone	5.0	ug/L	1.0	U	U	Yes	
Bromochloromet hane	0.50	ug/L	1.0	U	U	Yes	
Chloroform	0.50	ug/L	1.0	U	U	Yes	
1,1,1-Trichloroethane	0.50	ug/L	1.0	U	UJ	Yes	
Cyclohexane	0.50	ug/L	1.0	U	U	Yes	
Carbon tetrachloride	0.50	ug/L	1.0	U	UJ	Yes	
Benzene	0.50	ug/L	1.0	U	U	Yes	
1,2-Dichloroethane	0.50	ug/L	1.0	U	U	Yes	
Trichloroethene	0.50	ug/L	1.0	U	U	Yes	
Methylcyclohexa ne	0.50	ug/L	1.0	U	U	Yes	
1,2-Dichloropropane	0.50	ug/L	1.0	U	U	Yes	
Bromodichlorom ethane	0.50	ug/L	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
cis-1,3-Dichloropropene	0.50	ug/L	1.0	U	U	Yes	
4-Methyl-2-pentanone	5.0	ug/L	1.0	U	U	Yes	
Toluene	0.50	ug/L	1.0	U	U	Yes	
trans-1,3-Dichloropropene	0.50	ug/L	1.0	U	U	Yes	
1,1,2-Trichloroethane	0.50	ug/L	1.0	U	U	Yes	
Tetrachloroethene	0.50	ug/L	1.0	U	U	Yes	
2-Hexanone	5.0	ug/L	1.0	U	U	Yes	
Dibromochloromethane	0.50	ug/L	1.0	U	U	Yes	
1,2-Dibromoethane	0.50	ug/L	1.0	U	U	Yes	
Chlorobenzene	0.50	ug/L	1.0	U	U	Yes	
Ethylbenzene	0.50	ug/L	1.0	U	U	Yes	
o-Xylene	0.50	ug/L	1.0	U	U	Yes	
m,p-Xylene	0.50	ug/L	1.0	U	U	Yes	
Styrene	0.50	ug/L	1.0	U	U	Yes	
Bromoform	0.50	ug/L	1.0	U	U	Yes	
Isopropylbenzene	0.50	ug/L	1.0	U	U	Yes	
1,1,2,2-Tetrachloroethane	0.50	ug/L	1.0	U	U	Yes	
1,3-Dichlorobenzene	0.50	ug/L	1.0	U	U	Yes	
1,4-Dichlorobenzene	0.50	ug/L	1.0	U	U	Yes	
1,2-Dichlorobenzene	0.50	ug/L	1.0	U	U	Yes	
1,2-Dibromo-3-chloropropane	0.50	ug/L	1.0	U	U	Yes	
1,2,4-Trichlorobenzene	0.50	ug/L	1.0	U	U	Yes	
1,2,3-Trichlorobenzene	0.50	ug/L	1.0	U	U	Yes	

National Functional Guidelines Report #09

Lab MITKEM(Mitkem Laboratories) **SDG** E0AA0 **Case** 43638 **Contract** EPW11033 **Region** 5 **DDTID** 179837 **SOW** SOM01.2

Tentatively Identified Compounds

NONE FOUND

Regional Transmittal Form

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE:

SUBJECT: Review of Data
Received for Review on 7 aug 2013

FROM: Timothy Prendiville, Supervisor (**SR-6J**)
Superfund Contract Management Section

TO: Data User: Weston

We have reviewed the data for the following case:

SITE NAME: Castle Construction -- IN

CASE NUMBER: 43638 SDG NUMBER: E0AA0

Number and Type of Samples: 5 water samples

Sample Numbers: E0AA0 -- E0AA3; E0AA7

Laboratory: Mitkem Hrs for Review:

Following are our findings:

CC: Howard Pham
Region 5 TPO
Mail Code: **SA-5J**

Contract Laboratory Program

Sample Delivery Group (SDG)

Cover Sheet

SDG Number E0AA0

Laboratory Name	Mitkem Laboratories	Lab Code	MITKEM
Contract No.	EP-W-11-033	Case No.	43638
Analysis Price	$264	SDG Turnaround	14 days

EPA Sample Numbers in SDG (Listed in Numerical Order)

01) E0AA0			
02) E0AA1			
03) E0AA2			
04) E0AA3			
05) E0AA3MS			
06) E0AA3MSD			
07) E0AA7			

First Sample in SDG	Last Sample in SDG
E0AA0	E0AA7
First Sample Receipt Date	**Last Sample Receipt Date**
07/24/2013	07/24/2013

Note: There are a maximum of 20 field samples [excluding Performance Evaluation (PE) samples in an SDG. Attach the TR/COC Records to this form in alphanumeric order (the order listed above on this form).

Signature Agnes R Huntley Date 07/29/2013

Monday, July 29, 2013 12:21:37 PM

SDG E0AA0

USEPA CLP Organics COC (LAB COPY)

CHAIN OF CUSTODY RECORD

No: 5-072313-170354-0003

DateShipped: 7/23/2013

CarrierName:

AirbillNo:

Case #: 43638

Cooler #:

Lab: Spectrum Analytical, Inc. DBA: MITKEM Laboratories

Lab Contact: Agnes Huntley

Lab Phone: 401-732-3400

M1237

Organic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Inorganic Sample #	For Lab Use Only
E0AA0 (-01)	Ground Water/ David Sena	Grab	CLP TVOA, CLP SVOA	5-017201 (HCl), 5-17202 (None) (5)	CC-RW02-072313	07/23/2013 10:15	ME0AA0	good
E0AA1 (-02)	Ground Water/ David Sena	Grab	CLP TVOA, CLP SVOA	5-17205 (HCl), 5-17206 (None) (5)	CC-RW02-072313D	07/23/2013 10:20	ME0AA1	↓
E0AA2 (-03)	Ground Water/ David Sena	Grab	CLP TVOA, CLP SVOA	5-17209 (HCl), 5-17210 (None) (5)	CC-RW01-072313	07/23/2013 11:20	ME0AA2	↓
E0AA3 (-04)	Ground Water/ David Sena	Grab	CLP TVOA, CLP SVOA	5-17213 (HCl), 5-17215 (None) (13)	CC-RW03-072313	07/23/2013 12:00	ME0AA3	good
E0AA5	Soil/ David Sena	Grab	CLP VOA, CLP SVOA	5-17217 (None), 5-17219 (None) (4)	CC-SO08-(12-24)-072313	07/23/2013 16:15	ME0AA5	
E0AA6	Soil/ David Sena	Grab	CLP VOA, CLP SVOA, PER_SOL	5-17221 (None), 5-17222 (None), 5-17224 (None) (5)	CC-SO12-(0-12)-072313	07/23/2013 17:05	ME0AA6	
E0AA7 (-05)	Ground Water/ David Sena	Grab	CLP TVOA	5-17225 (HCl) (2)	CC-TB01	07/23/2013 17:00		good
E0AA5	Soil/ David Sena	Grab	PER_SOL	5-17220 (None) (1)	CC-SO08-(12-24)-072313	07/23/2013 16:15		

SDG-Final Sample

Sample(s) to be used for Lab QC: E0AA3

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

Analysis Key: CLP TVOA=CLP TCL Trace Volatiles, CLP SVOA=CLP TCL Semivolatiles, CLP VOA=CLP TCL Volatiles, PER_SOL=Percent Solids

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
	David Sena	7-23-13	[illegible]	7/24/13	10:30						

5.0°C

SDG Narrative

Spectrum Analytical, Inc., featuring Hanibal Technology Rhode Island Division submits the enclosed data package in response to USEPA Case # 43638 and SDG# E0AA0. Analyses were performed for five aqueous samples that were received on July 24, 2013.

The analyses were performed under USEPA Contract # EP-W-11-033.

Please note that the sample-shipping cooler received on July 24 was measured at 5.0°C.

The following samples are submitted in this data package:

Client ID	Lab ID	Analysis	VOA pH
E0AA0	M1237-01A	TV	< 2
E0AA0	M1237-01B	S	
E0AA1	M1237-02A	TV	< 2
E0AA1	M1237-02B	S	
E0AA2	M1237-03A	TV	< 2
E0AA2	M1237-03B	S	
E0AA3	M1237-04A	TV	< 2
E0AA3MS	M1237-04AMS	TV	< 2
E0AA3MSD	M1237-04AMSD	TV	< 2
E0AA3	M1237-04B	S	
E0AA3MS	M1237-04BMS	S	
E0AA3MSD	M1237-04BMSD	S	
E0AA7	M1237-05A	TV	< 2

TV = Trace Volatiles
S = Semi-Volatiles

The analyses were performed using USEPA CLP Multi-Media, Multi-Concentration (SOM1.2_) protocols. The analyses were performed with strict adherence to the SOW with the following exceptions and observations:

SAMPLE RECEIPT:

The TR/COC lists the sample tag numbers as '5-1XXXX' or '5-1XXXXXX'; however, the actual sample tag numbers are listed as '5C-01XXXX' or '5C-1XXXXX'. Per Region 5, the laboratory should note the issue in the SDG Narrative and proceed with the analysis of samples.

For sample E0AA1, the sample tag lists the station location instead of the CLP sample ID and there is no sample collection time listed. The TR/COC lists the sample collection time as 10:20 for sample E0AA1. Per Region 5, the sample collection time listed on the TR/COC for sample E0AA1 is the correct sample collection time and should be used. Since the sample tag does not list the CLP sample ID, it is acceptable for the laboratory to match the tag information to the information on the TR/COC to identify the sample correctly as sample E0AA1.

Trace Volatiles Analysis:

I. HOLDING TIMES

A. Sample Preparation:

All samples were prepared within the method-specified holding times.

B. Sample Analysis:

All samples were analyzed within the method-specified holding times.

II. METHODS

Samples were analyzed following procedures in laboratory test code: EPA CLP SOM 1.2 VOC TRACE

The following equation was used to calculate the concentration of target analytes for aqueous samples:

$$\text{Concentration } (\mu g/L) = \frac{(\text{Amt})(\text{DF})(\text{UF})(25)}{V_o}$$

where: Amt = on-column amount on raw data
DF = Dilution factor
UF = ng unit correction factor
V_o = Sample volume purged (mL)

The following equation was used to calculate the Amt in the previous equation:

$$Amt = \frac{(A_x)(IS)}{(A_{is})(RRF)}$$

where: A_x = area of the characteristic ion for the compound to be measured
A_{is} = area of the characteristic ion for the associated internal standard
IS = concentration of internal standard in ug/L
RRF = relative response factor

III. PREPARATION

Aqueous Samples were prepared following procedures in laboratory test code: SW5030B

IV. INSTRUMENTATION

The following instrumentation was used:

Instrument Code: V1
Instrument Type: GCMS-VOA
Description: HP5890 II / HP5972
Manufacturer: Hewlett-Packard
Model: 5890 / 5972

Trap used for instrument V1: OI Anaytical #10 Trap containing 8 cm each of Tenax, silica gel and carbon molecular sieve

GC Column used: 30 m X 0.25 mm ID [1.40 um thickness] DB-624 capillary column.

V. ANALYSIS

A. Calibration:

Calibrations met the SOW acceptance criteria.

Secondary ion 65 was used in the quantitation of 1,1-dichloroethene-d2 instead of primary ion 63 due to the interference with target compound 1,1-dichloroethene in the calibration standards.

B. Blanks:

All method blanks were within the acceptance criteria.

C. DMC Recoveries:

DMC recoveries were within the QC limits.

D. Matrix Spike / Matrix Spike Duplicate (MS/MSD):

Duplicate matrix spikes were performed on sample: E0AA3

Spike recoveries were within the advisory QC limits.

Replicate RPDs were within the advisory QC limits.

E. Internal Standards:

Internal standard peak areas were within the QC limits.

F. Dilutions:

No sample in this SDG required analysis at dilution.

G. Samples:

cis-1,3-Dichloropropene-d4 was detected in method blanks and in samples. The volatile organic deuterated monitoring compound spike solution contains both the cis- and trans-1,3-dichloropropene isomers. cis-1,3-Dichloropropene-d4 is not a dueterated monitoring compound for SOM01.2, while the trans isomer is. The cis isomer is considered a laboratory artifact, and is not reported as a tentatively identified compound.

No other unusual observations were made for the analysis.

H. Manual Integration

No manual integrations were performed on any sample or standard.

Semi-Volatiles Analysis:

I. HOLDING TIMES

A. Sample Preparation:

All samples were prepared within the method-specified holding times.

B. Sample Analysis:

All samples were analyzed within the method-specified holding times.

II. METHODS

Samples were analyzed following procedures in laboratory test code: EPA CLP SOM 1.2 BNA

The concentration of target analyte was determined for aqueous samples using the following equation:

$$\text{Concentration (ug/L)} = (\text{Amt})(\text{DF})(\text{Uf})\left(\frac{V_t}{V_i}\right)\left(\frac{1}{V_o}\right)$$

where: Amt = on-column amount on raw data
DF = Dilution Factor
Uf = GPC correction factor
V_t = final extract volume (µL)
V_i = volume injected (µL)
V_o = initial volume of sample extracted (mL)

The following equation was used to calculate the Amt in the previous equations:

$$Amt = \frac{(A_x)(IS)}{(A_{is})(RRF)}$$

where: A_x = area of the characteristic ion for the compound to be measured
A_{is} = area of the characteristic ion for the associated internal standard
IS = concentration of internal standard in ug/L
RRF = relative response factor

III. PREPARATION

Aqueous Samples were prepared following procedures in laboratory test code: SW3520C

IV. INSTRUMENTATION

The following instrumentation was used to perform

Instrument Code: S4
Instrument Type: GCMS-SEMI
Description: HP6890 / HP5973
Manufacturer: Hewlett-Packard
Model: 6890N / 5973N

GC Column used: 30 m X 0.25 mm ID [0.25 um thickness] Rxi-5sil MS capillary column.

V. ANALYSIS

A. Calibration:

Calibrations met the SOW acceptance criteria.

Ion 71 was used instead of ion 99 for Phenol-d5. Phenol-d5 closely elutes with bis (2-Chloroethyl) ether-d8, which also uses ion 99 for quantitation. This causes the recovery of Phenol-d5 to be higher. These two compounds have co-eluted in the high level calibration standard.

B. Blanks:

All method blanks were within the SOW criteria.

C. DMC Recoveries:

DMC recoveries were within the QC limits.

D. Matrix Spike / Matrix Spike Duplicate (MS/MSD):

Duplicate matrix spikes were performed on sample: E0AA3

Spike recoveries were within the advisory QC limits with the exception of the following:

E0AA3MS: recovery is above criteria for 4-Nitrophenol at 87% with criteria of (10-80).

E0AA3MSD: recovery is above criteria for 4-Nitrophenol at 80% with criteria of (10-80) and Pentachlorophenol at 112% with criteria of (9-103).

Replicate RPDs were within the advisory QC limits.

E. Internal Standards:

Internal standard area counts were within QC criteria.

F. Dilutions:

No sample in this SDG required analysis at dilution.

G. Samples:

No other unusual observations were made for the analysis.

H. Manual Integration:

No manual integrations were performed on any sample or standard.

All of the submittals to the region are originals other than logbook pages. Photocopies of logbook pages are included, with the originals maintained on file at the laboratory. Tunes, calibration verifications and initial calibrations that are shared among several cases are photocopies indicating the location of the originals.

I certify that this Sample Data Package is in compliance with the terms and condition of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy Sample Data Package and in the electronic data deliverable has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Agnes R Huntley

Agnes Huntley
CLP Project Manager
08/06/13

Agnes Huntley [Warwick]

From: Baciocco, Kerrie [kbaciocco@fedcsc.com]
Sent: Monday, August 05, 2013 11:58 AM
To: Agnes Huntley [RI]; Dawne Smart [RI]
Cc: Alida Roberman; Carlene Thomas; Howard Pham; Tim Prendiville; Layne.warren@epa.gov; Balla, Tonya
Subject: Region 05 | Case 43638 | Lab MITKEM | Issue Discrepancies with tags, jars, and/or TR/COC | FINAL
Attachments: M1237_SDG Coversheet.pdf; M1238_SDG Coversheet.pdf; M1270_SDG Coversheet.pdf

Agnes,

Summary Start
Issue 1: The TR/COC lists the sample tag numbers as '5-1XXXX' or '5-1XXXXXX'; however, the actual sample tag numbers are listed as '5C-01XXXX' or '5C-1XXXXX'.
Resolution 1: Per Region 5, the laboratory should note the issue in the SDG Narrative and proceed with the analysis of samples.

Issue 2: For sample E0AA1, the sample tag lists the station location instead of the CLP sample ID and there is no sample collection time listed. The TR/COC lists the sample collection time as 10:20 for sample E0AA1.
Resolution 2: Per Region 5, the sample collection time listed on the TR/COC for sample E0AA1 is the correct sample collection time and should be used. Since the sample tag does not list the CLP sample ID, it is acceptable for the laboratory to match the tag information to the information on the TR/COC to identify the sample correctly as sample E0AA1.
Summary End

Please let me know if you have any additional questions. To waive any defect(s) associated with this issue, please contact your PO.

Thanks,

KERRIE A. BACIOCCO
Environmental Coordinator - Region 5
CSC

15000 Conference Center Drive, Chantilly, VA 20151
Civil Division | (p) 703-818-4134 | (f) 703-818-4602 | kbaciocco@fedcsc.com | www.csc.com

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From: Prendiville, Timothy [mailto:prendiville.timothy@epa.gov]
Sent: Monday, August 05, 2013 11:44 AM
To: Baciocco, Kerrie; Layne, Warren; Roberman, Alida; Thomas, Carlene; Pham, Howard
Subject: RE: Region 05 | Case 43638 | Lab MITKEM | Issue Discrepancies with tags, jars, and/or TR/COC

Kerrie,

The proposed resolutions are acceptable to the Region. Thanks.

From: Baciocco, Kerrie [mailto:kbaciocco@fedcsc.com]

Sent: Monday, August 05, 2013 10:45 AM
To: Layne, Warren; Roberman, Alida; Thomas, Carlene; Pham, Howard; Prendiville, Timothy
Subject: RE: Region 05 | Case 43638 | Lab MITKEM | Issue Discrepancies with tags, jars, and/or TR/COC

Warren,

I would just like to follow up on the email below which is pending response. Please advise if the proposed resolutions are acceptable to the Region.

Issue 1: The TR/COC lists the sample tag numbers as '5-1XXXX' or '5-1XXXXXX'; however, the actual sample tag numbers are listed as '5C-01XXXX' or '5C-1XXXXX'.
PROPOSED Resolution 1: Per Region 5, the laboratory should note the issue in the SDG Narrative and proceed with the analysis of samples.

Issue 2: For sample E0AA1, the sample tag lists the station location instead of the CLP sample ID and there is no sample collection time listed. The TR/COC lists the sample collection time as 10:20 for sample E0AA1.
PROPOSED Resolution 2: Per Region 5, the sample collection time listed on the TR/COC for sample E0AA1 is the correct sample collection time and should be used. Since the sample tag does not list the CLP sample ID, it is acceptable for the laboratory to match the tag information to the information on the TR/COC to identify the sample correctly as sample E0AA1.

Please let me know if you have any questions.
Thanks,

KERRIE A. BACIOCCO
Environmental Coordinator - Region 5
CSC

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From: Baciocco, Kerrie
Sent: Friday, August 02, 2013 4:14 PM
To: 'Warren Layne (Layne.warren@epa.gov)'; 'Alida Roberman'; 'Carlene Thomas'; 'Howard Pham'; 'Tim Prendiville'
Subject: Region 05 | Case 43638 | Lab MITKEM | Issue Discrepancies with tags, jars, and/or TR/COC

Warren,

This is Caitlin Shubick; Kerrie is out of the office.

MITKEM is reporting the following issues regarding Case 43638. Please advise if the proposed resolutions are acceptable to the Region.

Issue 1: The TR/COC lists the sample tag numbers as '5-1XXXX' or '5-1XXXXXX'; however, the actual sample tag numbers are listed as '5C-01XXXX' or '5C-1XXXXX'.
PROPOSED Resolution 1: Per Region 5, the laboratory should note the issue in the SDG Narrative and proceed with the analysis of samples.

Issue 2: For sample E0AA1, the sample tag lists the station location instead of the CLP sample ID and there is no sample collection time listed. The TR/COC lists the sample collection time as 10:20 for sample E0AA1.
PROPOSED Resolution 2: Per Region 5, the sample collection time listed on the TR/COC for sample E0AA1 is the correct

sample collection time and should be used. Since the sample tag does not list the CLP sample ID, it is acceptable for the laboratory to match the tag information to the information on the TR/COC to identify the sample correctly as sample E0AA1.

Please let me know if you have any questions.
Thanks,
Caitlin for

KERRIE A. BACIOCCO
Environmental Coordinator - Region 5
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From: Balla, Tonya [mailto:T.Balla@westonsolutions.com]
Sent: Friday, August 02, 2013 3:58 PM
To: Baciocco, Kerrie
Subject: RE: Region 05 | Case 43638 | Lab MITKEM | Issue Discrepancies with tags, jars, and/or TR/COC

The laboratory can note the tag number discrepancy in the laboratory narrative and proceed with analysis.

The time on the COC for sample E0AA1 is valid and should be used as the sample time for that sample. Matching the CLP number on the tag and COC is acceptable.

Thanks,

Tonya Balla
847 918-4094 office
847 528-2623 cell
t.balla@westonsolutions.com

From: Baciocco, Kerrie [mailto:kbaciocco@fedcsc.com]
Sent: Friday, August 02, 2013 12:35 PM
To: Balla, Tonya
Subject: Region 05 | Case 43638 | Lab MITKEM | Issue Discrepancies with tags, jars, and/or TR/COC

Hi Tonya,

This is Caitlin Shubick; Kerrie is out of the office.

MITKEM is reporting the following issues for Case 43638. Please advise how the laboratory should proceed.

Issue 1: The TR/COC lists the sample tag numbers as '5-1XXXX' or '5-1XXXXXX'; however, the actual sample tag numbers are listed as '5C-01XXXX' or '5C-1XXXXX'.

Issue 2: For sample E0AA1, the sample tag lists the station location instead of the CLP sample ID and there is no sample collection time listed. The TR/COC lists the sample collection time as 10:20 for sample E0AA1.

Please let me know if you have any questions.
Thanks,

KERRIE A. BACIOCCO
Environmental Coordinator - Region 5
CSC

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From: Agnes Huntley [RI] [mailto:ang@spectrum-analytical.com]
Sent: Friday, August 02, 2013 1:08 PM
To: Baciocco, Kerrie
Subject: RE: Case 43638

The tag numbers are 5C- and six numbers after the dash. The TR/COC lists the tag numbers as 5-1XXXX or 5-1XXXXXX. The ones listed as 5-1XXXX should be 5C-01XXXX and the ones listed as 5-1XXXXX should be 5C-1XXXXX.

Agnes (Ng) Huntley
CLP Project Manager
Spectrum Analytical, featuring Hanibal Technology
Rhode Island Division
646 Camp Avenue
North Kingstown, RI 02852
(P) 401-732-3400
(F) 401-732-3499

From: Baciocco, Kerrie [mailto:kbaciocco@fedcsc.com]
Sent: Friday, August 02, 2013 1:13 PM
To: Agnes Huntley [RI]
Subject: RE: Case 43638

Thanks, Agnes.

Just one last thing I'd like to clarify for the tag number issue, in looking at the TR/COC, it looks like the tag number is listed as either '5-1XXXX', '5-0XXXX' for all samples; however, you indicated there is a letter 'C' between the '5' and the '-' on the actual sample tag (i.e. '5C-0XXXX' or '5C-1XXXX'). So the discrepancy appears to be the extra letter 'C' in the tag number on the sample tag, correct?

Please let me know if you have any questions.
Thanks,
Caitlin for

KERRIE A. BACIOCCO
Environmental Coordinator - Region 5
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From: Agnes Huntley [RI] [mailto:ang@spectrum-analytical.com]
Sent: Friday, August 02, 2013 12:42 PM
To: Baciocco, Kerrie
Subject: RE: Case 43638

The TR/COCs are attached.

The tags are reviewed by our work orders. I did not realize when I sent the first email that if was all for the same case number.

Agnes (Ng) Huntley
CLP Project Manager
Spectrum Analytical, featuring Hanibal Technology
Rhode Island Division
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North Kingstown, RI 02852
(P) 401-732-3400
(F) 401-732-3499

From: Baciocco, Kerrie [mailto:kbaciocco@fedcsc.com]
Sent: Friday, August 02, 2013 12:34 PM
To: Agnes Huntley [RI]
Subject: RE: Case 43638

Hi Agnes,

This is Caitlin Shubick; Kerrie is out of the office.

Can you please provide a copy of the TR/COC for Case 43638?

Also, to clarify the sample tag issue, was your second email about the sample tags a further clarification of the first email you sent? So to clarify, the issue is as stated below:

Issue: The TR/COC lists the sample tag numbers as 'XXXXX' or '1XXXXX'; however, the actual sample tag numbers are listed as '5C-0XXXXX' or '5C-1XXXXX'

Please let me know if you have any questions.
Thanks,
Caitlin for

KERRIE A. BACIOCCO
Environmental Coordinator - Region 5
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From: Agnes Huntley [RI] [mailto:ang@spectrum-analytical.com]
Sent: Friday, August 02, 2013 11:59 AM

To: Baciocco, Kerrie
Subject: Case 43638

Hi Kerrie,

The TR/COC lists the tag numbers as XXXXX or 1XXXXX. The actual tag numbers are 5C-0XXXXX or 5C-1XXXXX.

Thank you,
Agnes

Agnes (Ng) Huntley
CLP Project Manager
Spectrum Analytical, featuring Hanibal Technology
Rhode Island Division
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North Kingstown, RI 02852
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****
Due to rising cost of rush shipments, Spectrum Analytical requests that you allow sufficient time for all sample bottle order requests, 3 days notice at a minimum. If you need an expedited bottle order request Spectrum Analytical will provide the bottles but will request that you pay for the shipping. Spectrum Analytical will continue to pay for all shipping previously agreed to, given proper notification. Thank you for your understanding and cooperation

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From: Agnes Huntley [RI] [mailto:ang@spectrum-analytical.com]
Sent: Friday, August 02, 2013 11:42 AM
To: Baciocco, Kerrie
Subject: Case 43638 SDG E0AA0

Hi Kerrie,

The actual tag numbers are 5C-0xxxxx, however, the tag numbers are listed as 5C-xxxxx.

For sample E0AA1, the sample tag lists the station location instead of the CLP sample ID. It also does not list the time of sample collection. The TR/COC notes collection time as 10:20.

Thank you,
Agnes

Agnes (Ng) Huntley
CLP Project Manager
Spectrum Analytical, featuring Hanibal Technology
Rhode Island Division
646 Camp Avenue
North Kingstown, RI 02852
(P) 401-732-3400
(F) 401-732-3499
****
Due to rising cost of rush shipments, Spectrum Analytical requests that you allow sufficient time for all sample

bottle order requests, 3 days notice at a minimum. If you need an expedited bottle order request Spectrum Analytical will provide the bottles but will request that you pay for the shipping. Spectrum Analytical will continue to pay for all shipping previously agreed to, given proper notification. Thank you for your understanding and cooperation

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2A - FORM II VOA-1

WATER VOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

Level: (TRACE or LOW) TRACE

	EPA SAMPLE NO.	VDMC1 (VCL) #	VDMC2 (CLA) #	VDMC3 (DCE) #	VDMC4 (BUT) #	VDMC5 (CLF) #	VDMC6 (DCA) #	VDMC7 (BEN) #
01	VBLKX1	92	100	92	95	94	102	94
02	E0AA0	118	98	102	72	86	85	96
03	E0AA1	118	111	99	70	87	86	94
04	E0AA2	115	118	99	69	87	89	94
05	E0AA3	108	109	94	74	89	87	91
06	E0AA3MS	116	110	97	68	85	83	92
07	E0AA3MSD	118	113	98	65	85	82	96
08	VBLKZ1	96	104	91	111	104	110	98
09	E0AA7	104	100	92	100	96	111	89
10	VBLK1A	91	96	76	90	95	101	92
11	VHBLK1A	105	103	80	84	88	94	88

			QC LIMITS
VDMC1	(VCL)	= Vinyl chloride-d3	(65-131)
VDMC2	(CLA)	= Chloroethane-d5	(71-131)
VDMC3	(DCE)	= 1,1-Dichloroethene-d2	(55-104)
VDMC4	(BUT)	= 2-Butanone-d5	(49-155)
VDMC5	(CLF)	= Chloroform-d	(78-121)
VDMC6	(DCA)	= 1,2-Dichloroethane-d4	(78-129)
VDMC7	(BEN)	= Benzene-d6	(77-124)

Column to be used to flag recovery values

* Values outside of contract required QC limits

2B - FORM II VOA-2

WATER VOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

Level: (TRACE or LOW) TRACE

	SAMPLE NO.	VDMC8 (DPA) #	VDMC9 (TOL) #	VDMC10 (TDP) #	VDMC11 (HEX) #	VDMC12 (TCA) #	VDMC13 (DCZ) #	VDMC14 #	TOT OUT
01	VBLKX1	94	95	93	98	90	93		0
02	E0AA0	92	95	85	84	84	94		0
03	E0AA1	90	95	79	76	86	94		0
04	E0AA2	88	95	84	79	89	91		0
05	E0AA3	88	91	85	75	86	91		0
06	E0AA3MS	86	93	83	77	82	91		0
07	E0AA3MSD	88	94	83	74	82	91		0
08	VBLKZ1	107	101	89	107	118	105		0
09	E0AA7	96	89	103	93	99	94		0
10	VBLK1A	99	93	84	89	97	95		0
11	VHBLK1A	95	86	73	83	93	92		0

			QC LIMITS
VDMC8	(DPA)	= 1,2-Dichloropropane-d6	(79-124)
VDMC9	(TOL)	= Toluene-d8	(77-121)
VDMC10	(TDP)	= trans-1,3-Dichloropropene-d4	(73-121)
VDMC11	(HEX)	= 2-Hexanone-d5	(28-135)
VDMC12	(TCA)	= 1,1,2,2-Tetrachloroethane-d2	(73-125)
VDMC13	(DCZ)	= 1,2-Dichlorobenzene-d4	(80-131)

Column to be used to flag recovery values

* Values outside of contract required QC limits

Report 1,4-Dioxane-d8 for Low-Medium VOA analysis only

3A - FORM III VOA-1

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

Matrix Spike - EPA Sample No.: E0AA3 Level: (TRACE or LOW) TRACE

COMPOUND	SPIKE ADDED (µg/L)	SAMPLE CONCENTRATION (µg/L)	MS CONCENTRATION (µg/L)	MS %REC	#	QC. LIMITS REC.
1,1-Dichloroethene	5.0000	0.0000	3.8947	78		61-145
Benzene	5.0000	0.0000	4.5638	91		76-127
Trichloroethene	5.0000	0.0000	4.2864	86		71-120
Toluene	5.0000	0.0000	4.7019	94		76-125
Chlorobenzene	5.0000	0.0000	4.5054	90		75-130

COMPOUND	SPIKE ADDED (µg/L)	MSD CONCENTRATION (µg/L)	MSD %REC	#	%RPD	#	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	5.0000	3.5666	71		9		0-14	61-145
Benzene	5.0000	4.2918	86		6		0-11	76-127
Trichloroethene	5.0000	4.1064	82		4		0-14	71-120
Toluene	5.0000	4.4399	89		6		0-13	76-125
Chlorobenzene	5.0000	4.1229	82		9		0-13	75-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits

COMMENTS:

4A - FORM IV VOA
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.
VBLK1A

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

Lab File ID: V1M3167.D Lab Sample ID: MB-72914

Instrument ID: V1

Matrix: (SOIL/SED/WATER) WATER Date Analyzed: 07/30/2013

Level: (TRACE or LOW/MED) TRACE Time Analyzed: 1:25

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VHBLK1A	VHBLK1A	V1M3168.D	1:53

COMMENTS:

4A - FORM IV VOA
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.
VBLKX1

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

Lab File ID: V1M3123.D Lab Sample ID: MB-72879

Instrument ID: V1

Matrix: (SOIL/SED/WATER) WATER Date Analyzed: 07/28/2013

Level: (TRACE or LOW/MED) TRACE Time Analyzed: 11:35

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	E0AA0	M1237-01A	V1M3132.D	15:44
02	E0AA1	M1237-02A	V1M3133.D	16:12
03	E0AA2	M1237-03A	V1M3134.D	16:40
04	E0AA3	M1237-04A	V1M3135.D	17:07
05	E0AA3MS	M1237-04AMS	V1M3136.D	17:35
06	E0AA3MSD	M1237-04AMSD	V1M3137.D	18:03

COMMENTS:

4A - FORM IV VOA
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.
VBLKZ1

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: . SDG No.: E0AA0

Lab File ID: V1M3144.D Lab Sample ID: MB-72913

Instrument ID: V1

Matrix: (SOIL/SED/WATER) WATER Date Analyzed: 07/29/2013

Level: (TRACE or LOW/MED) TRACE Time Analyzed: 14:47

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	E0AA7	M1237-05A	V1M3145.D	15:13

COMMENTS:

SOM01.2 (6/2007)

8A - FORM VIII VOA

VOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

GC Column: DB-624 ID: 0.25 (mm) Init. Calib. Date(s): 07/26/2013 07/26/2013

EPA Sample No.(VSTD#####): VSTD005X1 Date Analyzed: 07/28/2013

Lab File ID (Standard): V1M3121.D Time Analyzed: 10:40

Instrument ID: V1 Heated Purge: (Y/N) N

		IS1 (CBZ) AREA #	RT #	IS2 (DFB) AREA #	RT #	IS3 (DCB) AREA #	RT #
	12 HOUR STD	128232	7.42	177837	4.625	53645	9.969
	UPPER LIMIT	179525	7.75	248972	4.955	75103	10.299
	LOWER LIMIT	76939	7.09	106702	4.295	32187	9.639
	EPA SAMPLE NO.						
01	VBLKX1	153092	7.413	219041	4.628	65304	9.972
02	E0AA0	127410	7.417	190808	4.632	52205	9.976
03	E0AA1	129640	7.410	195044	4.624	51341	9.969
04	E0AA2	132483	7.419	199709	4.623	55497	9.978
05	E0AA3	143274	7.418	204987	4.623	57516	9.977
06	E0AA3MS	125159	7.402	185865	4.617	50075	9.971
07	E0AA3MSD	122395	7.414	186604	4.618	50459	9.973

IS1 (CBZ) = Chlorobenzene-d5
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (DCB) = 1,4-Dichlorobenzene-d4
AREA UPPER LIMIT = 200% (Low-Medium Volatiles) and 140% (Trace Volatiles) of internal standard area
AREA LOWER LIMIT = 50% (Low-Medium Volatiles) and 60% (Trace Volatiles) of internal standard area
RT UPPER LIMIT = +0.50 (Low-Medium Volatiles) and +0.33 (Trace Volatiles) minutes of internal standard RT
RT LOWER LIMIT = -0.50 (Low-Medium Volatiles) and -0.33 (Trace Volatiles) minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.

8A - FORM VIII VOA

VOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

GC Column: DB-624 ID: 0.25 (mm) Init. Calib. Date(s): 07/26/2013 07/26/2013

EPA Sample No.(VSTD#####): VSTD005Z1 Date Analyzed: 07/29/2013

Lab File ID (Standard): V1M3142.D Time Analyzed: 13:37

Instrument ID: V1 Heated Purge: (Y/N) N

		IS1 (CBZ) AREA #	RT #	IS2 (DFB) AREA #	RT #	IS3 (DCB) AREA #	RT #
	12 HOUR STD	148051	7.401	197789	4.616	68972	9.96
	UPPER LIMIT	207271	7.731	276905	4.946	96561	10.29
	LOWER LIMIT	88831	7.071	118673	4.286	41383	9.63
	EPA SAMPLE NO.						
01	VBLKZ1	139019	7.407	186130	4.621	61742	9.966
02	E0AA7	149466	7.410	204056	4.624	63678	9.979

IS1 (CBZ) = Chlorobenzene-d5
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (DCB) = 1,4-Dichlorobenzene-d4
AREA UPPER LIMIT = 200% (Low-Medium Volatiles) and 140% (Trace Volatiles) of internal standard area
AREA LOWER LIMIT = 50% (Low-Medium Volatiles) and 60% (Trace Volatiles) of internal standard area
RT UPPER LIMIT = +0.50 (Low-Medium Volatiles) and +0.33 (Trace Volatiles) minutes of internal standard RT
RT LOWER LIMIT = -0.50 (Low-Medium Volatiles) and -0.33 (Trace Volatiles) minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.

8A - FORM VIII VOA

VOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

GC Column: DB-624 ID: 0.25 (mm) Init. Calib. Date(s): 07/26/2013 07/26/2013

EPA Sample No.(VSTD#####): VSTD0051A Date Analyzed: 07/30/2013

Lab File ID (Standard): V1M3166.D Time Analyzed: 0:57

Instrument ID: V1 Heated Purge: (Y/N) N

		IS1 (CBZ) AREA	#	RT	#	IS2 (DFB) AREA	#	RT	#	IS3 (DCB) AREA	#	RT	#
	12 HOUR STD	160819		7.407		224589		4.622		67973		9.966	
	UPPER LIMIT	225147		7.737		314425		4.952		95162		10.296	
	LOWER LIMIT	96491		7.077		134753		4.292		40784		9.636	
	EPA SAMPLE NO.												
01	VBLK1A	153540		7.408		212037		4.623		66479		9.967	
02	VHBLK1A	169977		7.407		234437		4.612		71220		9.966	

IS1 (CBZ) = Chlorobenzene-d5

IS2 (DFB) = 1,4-Difluorobenzene

IS3 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = 200% (Low-Medium Volatiles) and 140% (Trace Volatiles) of internal standard area

AREA LOWER LIMIT = 50% (Low-Medium Volatiles) and 60% (Trace Volatiles) of internal standard area

RT UPPER LIMIT = +0.50 (Low-Medium Volatiles) and +0.33 (Trace Volatiles) minutes of internal standard RT

RT LOWER LIMIT = -0.50 (Low-Medium Volatiles) and -0.33 (Trace Volatiles) minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AA0

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M1237-01A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V1M3132.D

Level: (TRACE/LOW/MED) TRACE Date Received: 07/24/2013

% Moisture: not dec. Date Analyzed: 07/28/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

SOM01.2 (6/2007)

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AA0

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M1237-01A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V1M3132.D

Level: (TRACE/LOW/MED) TRACE Date Received: 07/24/2013

% Moisture: not dec. Date Analyzed: 07/28/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
95-47-6	o-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
E0AA0

Lab Name: MITKEM LABORATORIES
Contract: EP-W-11-033
Lab Code: MITKEM
Case No.: 43638
Mod. Ref No.:
SDG No.: E0AA0
Matrix: (SOIL/SED/WATER) WATER
Lab Sample ID: M1237-01A
Sample wt/vol: 25.0 (g/mL) ML
Lab File ID: V1M3132.D
Level: (TRACE or LOW/MED) TRACE
Date Received: 07/24/2013
% Moisture: not dec.
Date Analyzed: 07/28/2013
GC Column: DB-624
ID: 0.25 (mm)
Dilution Factor: 1.0
Soil Extract Volume: (uL)
Soil Aliquot Volume: (uL)
CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L
Purge Volume: 25.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

SOM01.2 (6/2007)

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AA1

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M1237-02A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V1M3133.D

Level: (TRACE/LOW/MED) TRACE Date Received: 07/24/2013

% Moisture: not dec. Date Analyzed: 07/28/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

SOM01.2 (6/2007)

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AA1

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M1237-02A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V1M3133.D

Level: (TRACE/LOW/MED) TRACE Date Received: 07/24/2013

% Moisture: not dec. Date Analyzed: 07/28/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
95-47-6	o-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E0AA1

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M1237-02A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V1M3133.D

Level: (TRACE or LOW/MED) TRACE Date Received: 07/24/2013

% Moisture: not dec. Date Analyzed: 07/28/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L Purge Volume: 25.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

SOM01.2 (6/2007)

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AA2

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M1237-03A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V1M3134.D

Level: (TRACE/LOW/MED) TRACE Date Received: 07/24/2013

% Moisture: not dec. Date Analyzed: 07/28/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

SOM01.2 (6/2007)

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AA2

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM

Case No.: 43638

Mod. Ref No.:

SDG No.: E0AA0

Matrix: (SOIL/SED/WATER) WATER

Lab Sample ID: M1237-03A

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: V1M3134.D

Level: (TRACE/LOW/MED) TRACE

Date Received: 07/24/2013

% Moisture: not dec.

Date Analyzed: 07/28/2013

GC Column: DB-624

ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
95-47-6	o-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E0AA2

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M1237-03A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V1M3134.D

Level: (TRACE or LOW/MED) TRACE Date Received: 07/24/2013

% Moisture: not dec. Date Analyzed: 07/28/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L Purge Volume: 25.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

SOM01.2 (6/2007)

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AA3

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M1237-04A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V1M3135.D

Level: (TRACE/LOW/MED) TRACE Date Received: 07/24/2013

% Moisture: not dec. Date Analyzed: 07/28/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AA3

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M1237-04A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V1M3135.D

Level: (TRACE/LOW/MED) TRACE Date Received: 07/24/2013

% Moisture: not dec. Date Analyzed: 07/28/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
95-47-6	o-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E0AA3

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M1237-04A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V1M3135.D

Level: (TRACE or LOW/MED) TRACE Date Received: 07/24/2013

% Moisture: not dec. Date Analyzed: 07/28/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L Purge Volume: 25.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E9667961	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

SOM01.2 (6/2007)

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AA3MS

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M1237-04AMS

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V1M3136.D

Level: (TRACE/LOW/MED) TRACE Date Received: 07/24/2013

% Moisture: not dec. Date Analyzed: 07/28/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	3.9	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	4.6	
107-06-2	1,2-Dichloroethane	0.50	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

SOM01.2 (6/2007)

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AA3MS

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M1237-04AMS

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V1M3136.D

Level: (TRACE/LOW/MED) TRACE Date Received: 07/24/2013

% Moisture: not dec. Date Analyzed: 07/28/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
79-01-6	Trichloroethene	4.3	
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	4.7	
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	4.5	
100-41-4	Ethylbenzene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
95-47-6	o-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AA3MSD

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M1237-04AMSD

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V1M3137.D

Level: (TRACE/LOW/MED) TRACE Date Received: 07/24/2013

% Moisture: not dec. Date Analyzed: 07/28/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	3.6	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	4.3	
107-06-2	1,2-Dichloroethane	0.50	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

SOM01.2 (6/2007)

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AA3MSD

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M1237-04AMSD

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V1M3137.D

Level: (TRACE/LOW/MED) TRACE Date Received: 07/24/2013

% Moisture: not dec. Date Analyzed: 07/28/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
79-01-6	Trichloroethene	4.1	
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	4.4	
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	4.1	
100-41-4	Ethylbenzene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
95-47-6	o-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AA7

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M1237-05A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V1M3145.D

Level: (TRACE/LOW/MED) TRACE Date Received: 07/24/2013

% Moisture: not dec. Date Analyzed: 07/29/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AA7

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM

Case No.: 43638

Mod. Ref No.:

SDG No.: E0AA0

Matrix: (SOIL/SED/WATER) WATER

Lab Sample ID: M1237-05A

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: V1M3145.D

Level: (TRACE/LOW/MED) TRACE

Date Received: 07/24/2013

% Moisture: not dec.

Date Analyzed: 07/29/2013

GC Column: DB-624

ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
95-47-6	o-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

SOM01.2 (6/2007)

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E0AA7

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M1237-05A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V1M3145.D

Level: (TRACE or LOW/MED) TRACE Date Received: 07/24/2013

% Moisture: not dec. Date Analyzed: 07/29/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L Purge Volume: 25.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

SOM01.2 (6/2007)

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK1A

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: MB-72914

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V1M3167.D

Level: (TRACE/LOW/MED) TRACE Date Received:

% Moisture: not dec. Date Analyzed: 07/30/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

SOM01.2 (6/2007)

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK1A

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: MB-72914

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V1M3167.D

Level: (TRACE/LOW/MED) TRACE Date Received:

% Moisture: not dec. Date Analyzed: 07/30/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
95-47-6	o-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK1A

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: MB-72914

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V1M3167.D

Level: (TRACE or LOW/MED) TRACE Date Received:

% Moisture: not dec. Date Analyzed: 07/30/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L Purge Volume: 25.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

SOM01.2 (6/2007)

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKX1

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: MB-72879

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V1M3123.D

Level: (TRACE/LOW/MED) TRACE Date Received:

% Moisture: not dec. Date Analyzed: 07/28/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

SOM01.2 (6/2007)

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKX1

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: MB-72879

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V1M3123.D

Level: (TRACE/LOW/MED) TRACE Date Received:

% Moisture: not dec. Date Analyzed: 07/28/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
95-47-6	o-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.25	J

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKX1

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: MB-72879

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V1M3123.D

Level: (TRACE or LOW/MED) TRACE Date Received:

% Moisture: not dec. Date Analyzed: 07/28/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L Purge Volume: 25.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

SOM01.2 (6/2007)

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKZ1

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM

Case No.: 43638

Mod. Ref No.:

SDG No.: E0AA0

Matrix: (SOIL/SED/WATER) WATER

Lab Sample ID: MB-72913

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: V1M3144.D

Level: (TRACE/LOW/MED) TRACE

Date Received:

% Moisture: not dec.

Date Analyzed: 07/29/2013

GC Column: DB-624

ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

SOM01.2 (6/2007)

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKZ1

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: MB-72913

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V1M3144.D

Level: (TRACE/LOW/MED) TRACE Date Received:

% Moisture: not dec. Date Analyzed: 07/29/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
95-47-6	o-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
VBLKZ1

Lab Name: MITKEM LABORATORIES
Contract: EP-W-11-033
Lab Code: MITKEM
Case No.: 43638
Mod. Ref No.:
SDG No.: E0AA0
Matrix: (SOIL/SED/WATER) WATER
Lab Sample ID: MB-72913
Sample wt/vol: 25.0 (g/mL) ML
Lab File ID: V1M3144.D
Level: (TRACE or LOW/MED) TRACE
Date Received:
% Moisture: not dec.
Date Analyzed: 07/29/2013
GC Column: DB-624
ID: 0.25 (mm)
Dilution Factor: 1.0
Soil Extract Volume: (uL)
Soil Aliquot Volume: (uL)
CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L
Purge Volume: 25.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

SOM01.2 (6/2007)

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VHBLK1A

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: VHBLK1A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V1M3168.D

Level: (TRACE/LOW/MED) TRACE Date Received:

% Moisture: not dec. Date Analyzed: 07/30/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

SOM01.2 (6/2007)

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VHBLK1A

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: VHBLK1A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V1M3168.D

Level: (TRACE/LOW/MED) TRACE Date Received:

% Moisture: not dec. Date Analyzed: 07/30/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
95-47-6	o-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
VHBLK1A

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: VHBLK1A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V1M3168.D

Level: (TRACE or LOW/MED) TRACE Date Received:

% Moisture: not dec. Date Analyzed: 07/30/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L Purge Volume: 25.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

SOM01.2 (6/2007)

2G - FORM II SV-1

WATER SEMIVOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

	EPA SAMPLE NO.	SDMC1 (PHL) #	SDMC2 (BCE) #	SDMC3 (2CP) #	SDMC4 (4MP) #	SDMC5 (NBZ) #	SDMC6 (2NP) #	SDMC7 (DCP) #	SDMC8 (4CA) #
01	SBLK4M	72	71	82	77	77	76	74	83
02	E0AA0	75	80	86	82	91	86	85	60
03	E0AA1	71	70	72	70	69	69	67	62
04	E0AA2	84	86	83	80	89	88	84	30
05	E0AA3	88	86	93	85	84	89	83	65
06	E0AA3MSD	86	86	92	89	80	81	76	69
07	E0AA3MS	77	78	77	75	83	89	78	53

			QC LIMITS
SDMC1	(PHL)	= Phenol-d5	(39-106)
SDMC2	(BCE)	= Bis(2-chloroethyl)ether-d8	(40-105)
SDMC3	(2CP)	= 2-Chlorophenol-d4	(41-106)
SDMC4	(4MP)	= 4-Methylphenol-d8	(25-111)
SDMC5	(NBZ)	= Nitrobenzene-d5	(43-108)
SDMC6	(2NP)	= 2-Nitrophenol-d4	(40-108)
SDMC7	(DCP)	= 2,4-Dichlorophenol-d3	(37-105)
SDMC8	(4CA)	= 4-Chloroaniline-d4	(1-145)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D DMC diluted out

2H - FORM II SV-2

WATER SEMIVOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

	EPA SAMPLE NO.	SDMC9 (DMP) #	SDMC10 (ACY) #	SDMC11 (4NP) #	SDMC12 (FLR) #	SDMC13 (NMP) #	SDMC14 (ANC) #	SDMC15 (PYR) #	SDMC16 (BAP) #	TOT OUT
01	SBLK4M	77	74	84	77	55	73	70	80	0
02	E0AA0	96	88	101	94	81	87	84	89	0
03	E0AA1	86	79	85	85	78	85	82	83	0
04	E0AA2	87	79	91	85	80	85	82	85	0
05	E0AA3	85	83	92	87	79	86	84	87	0
06	E0AA3MSD	86	82	91	87	85	88	82	87	0
07	E0AA3MS	89	80	87	86	69	84	84	91	0

			QC LIMITS
SDMC9	(DMP)	= Dimethylphthalate-d6	(47-114)
SDMC10	(ACY)	= Acenaphthylene-d8	(41-107)
SDMC11	(4NP)	= 4-Nitrophenol-d4	(33-116)
SDMC12	(FLR)	= Fluorene-d10	(42-111)
SDMC13	(NMP)	= 4,6-Dinitro-2-methylphenol-d2	(22-104)
SDMC14	(ANC)	= Anthracene-d10	(44-110)
SDMC15	(PYR)	= Pyrene-d10	(52-119)
SDMC16	(BAP)	= Benzo(a)pyrene-d12	(32-121)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D DMC diluted out

3C - FORM III SV-1

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: _____ SDG No.: E0AA0

Matrix Spike - EPA Sample No.: E0AA3

COMPOUND	SPIKE ADDED (µg/L)	SAMPLE CONCENTRATION (µg/L)	MS CONCENTRATION (µg/L)	MS %REC	#	QC. LIMITS REC.
Phenol	40.0000	0.0000	28.8222	72		12-110
2-Chlorophenol	40.0000	0.0000	29.6604	74		27-123
N-Nitroso-di-n-propylamine	40.0000	0.0000	23.9507	60		41-116
4-Chloro-3-methylphenol	40.0000	0.0000	31.6327	79		23-97
Acenaphthene	40.0000	0.0000	28.0352	70		46-118
4-Nitrophenol	40.0000	0.0000	34.8082	87	*	10-80
2,4-Dinitrotoluene	40.0000	0.0000	33.3524	83		24-96
Pentachlorophenol	40.0000	0.0000	40.1676	100		9-103
Pyrene	40.0000	0.0000	19.6401	49		26-127

COMPOUND	SPIKE ADDED (µg/L)	MSD CONCENTRATION (µg/L)	MSD %REC	#	%RPD	#	QC LIMITS RPD	QC LIMITS REC.
Phenol	40.0000	33.4982	84		15		0-42	12-110
2-Chlorophenol	40.0000	34.0857	85		14		0-40	27-123
N-Nitroso-di-n-propylamine	40.0000	29.2576	73		20		0-38	41-116
4-Chloro-3-methylphenol	40.0000	31.5419	79		0		0-42	23-97
Acenaphthene	40.0000	28.5903	71		2		0-31	46-118
4-Nitrophenol	40.0000	32.0111	80		8		0-50	10-80
2,4-Dinitrotoluene	40.0000	29.4268	74		13		0-38	24-96
Pentachlorophenol	40.0000	44.7739	112	*	11		0-50	9-103
Pyrene	40.0000	19.5501	49		0		0-31	26-127

Column to be used to flag recovery and RPD values with an asterisk

CW 8/9/13

* Values outside of QC limits

RPD: 0 out of 9 outside limits

Spike Recovery: 23 out of 18 outside limits

COMMENTS: _____

SOM01.2 (6/2007)

4C - FORM IV SV

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK4M

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

Lab File ID: S4F4568.D Lab Sample ID: MB-72921

Instrument ID: S4 Date Extracted: 07/29/2013

Matrix: (SOIL/SED/WATER) WATER Date Analyzed: 07/30/2013

Level: (LOW/MED) LOW Time Analyzed: 14:03

Extraction: (Type) CONT GPC Cleanup: (Y/N) N

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	E0AA0	M1237-01B	S4F4569.D	07/30/2013
02	E0AA1	M1237-02B	S4F4570.D	07/30/2013
03	E0AA2	M1237-03B	S4F4571.D	07/30/2013
04	E0AA3	M1237-04B	S4F4572.D	07/30/2013
05	E0AA3MSD	M1237-04BMSD	S4F4574.D	07/30/2013
06	E0AA3MS	M1237-04BMS	S4F4581.D	08/02/2013

COMMENTS:

8C - FORM VIII SV-1

SEMIVOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

GC Column: Rxi-5sil MS ID: 0.25 (mm) Init. Calib. Date(s): 07/25/2013 07/25/2013

EPA Sample No.(SSTD020##) SSTD0204M Date Analyzed: 07/30/2013

Lab File ID (Standard): S4F4567.D Time Analyzed: 13:36

Instrument ID: S4

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	37204	3.561	125597	4.855	67821	6.904
	UPPER LIMIT	74408	4.061	251194	5.355	135642	7.404
	LOWER LIMIT	18602	3.061	62799	4.355	33911	6.404
	EPA SAMPLE NO.						
01	SBLK4M	34093	3.561	125907	4.855	66971	6.905
02	E0AA0	29376	3.572	104724	4.855	53763	6.904
03	E0AA1	33250	3.572	123637	4.855	62886	6.904
04	E0AA2	27025	3.572	95989	4.855	54537	6.904
05	E0AA3	31307	3.572	119586	4.855	65568	6.904
06	E0AA3MSD	28238	3.572	107569	4.855	58383	6.904

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = 200% of internal standard area

AREA LOWER LIMIT = 50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.

8D - FORM VIII SV-2

SEMIVOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

EPA Sample No.(SSTD020##) SSTD0204M Date Analyzed: 07/30/2013

Lab File ID (Standard): S4F4567.D Time Analyzed: 13:36

Instrument ID: S4 GC Column: Rxi-5sil MS ID: 0.25 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	121709	8.685	113973	11.893	103647	13.653
	UPPER LIMIT	243418	9.185	227946	12.393	207294	14.153
	LOWER LIMIT	60855	8.185	56987	11.393	51824	13.153
	EPA SAMPLE NO.						
01	SBLK4M	119414	8.685	105173	11.893	88678	13.653
02	E0AA0	97147	8.695	88995	11.893	78378	13.653
03	E0AA1	105903	8.695	94801	11.893	86758	13.653
04	E0AA2	90888	8.695	81353	11.893	76033	13.653
05	E0AA3	111174	8.695	99752	11.893	85552	13.653
06	E0AA3MSD	96424	8.695	86879	11.893	78864	13.653

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = 200% of internal standard area

AREA LOWER LIMIT = 50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.

8C - FORM VIII SV-1

SEMIVOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

GC Column: Rxi-5sil MS ID: 0.25 (mm) Init. Calib. Date(s): 07/25/2013 07/25/2013

EPA Sample No.(SSTD020##) SSTD0204O Date Analyzed: 08/02/2013

Lab File ID (Standard): S4F4580A.D Time Analyzed: 13:44

Instrument ID: S4

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	36665	3.53	127096	4.814	71990	6.863
	UPPER LIMIT	73330	4.03	254192	5.314	143980	7.363
	LOWER LIMIT	18333	3.03	63548	4.314	35995	6.363
	EPA SAMPLE NO.						
01	E0AA3MS	33549	3.530	109438	4.824	59994	6.863

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = 200% of internal standard area

AREA LOWER LIMIT = 50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.

8D - FORM VIII SV-2

SEMIVOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

EPA Sample No.(SSTD020##) SSTD0204O Date Analyzed: 08/02/2013

Lab File ID (Standard): S4F4580A.D Time Analyzed: 13:44

Instrument ID: S4 GC Column: Rxi-5sil MS ID: 0.25 (mm)

		IS4 (PHN) AREA	#	RT	#	IS5 (CRY) AREA	#	RT	#	IS6 (PRY) AREA	#	RT	#
	12 HOUR STD	120058		8.654		114549		11.852		107647		13.601	
	UPPER LIMIT	240116		9.154		229098		12.352		215294		14.101	
	LOWER LIMIT	60029		8.154		57275		11.352		53824		13.101	
	EPA SAMPLE NO.												
01	E0AA3MS	103351		8.654		94357		11.852		89654		13.601	

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = 200% of internal standard area

AREA LOWER LIMIT = 50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AA0

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M1237-01B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S4F4569.D

Level: (LOW/MED) LOW Extraction: (Type) CONT

% Moisture: Decanted: (Y/N) Date Received: 07/24/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 07/29/2013

Injection Volume: 2.0 (uL) GPC Factor: 1.00 Date Analyzed: 07/30/2013

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
100-52-7	Benzaldehyde	5.0	U
108-95-2	Phenol	5.0	U
111-44-4	Bis(2-chloroethyl)ether	5.0	U
95-57-8	2-Chlorophenol	5.0	U
95-48-7	2-Methylphenol	5.0	U
108-60-1	2,2´-Oxybis(1-chloropropane)	5.0	U
98-86-2	Acetophenone	5.0	U
106-44-5	4-Methylphenol	5.0	U
621-64-7	N-Nitroso-di-n-propylamine	5.0	U
67-72-1	Hexachloroethane	5.0	U
98-95-3	Nitrobenzene	5.0	U
78-59-1	Isophorone	5.0	U
88-75-5	2-Nitrophenol	5.0	U
105-67-9	2,4-Dimethylphenol	5.0	U
111-91-1	Bis(2-chloroethoxy)methane	5.0	U
120-83-2	2,4-Dichlorophenol	5.0	U
91-20-3	Naphthalene	5.0	U
106-47-8	4-Chloroaniline	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
105-60-2	Caprolactam	5.0	U
59-50-7	4-Chloro-3-methylphenol	5.0	U
91-57-6	2-Methylnaphthalene	5.0	U
77-47-4	Hexachlorocyclopentadiene	5.0	U
88-06-2	2,4,6-Trichlorophenol	5.0	U
95-95-4	2,4,5-Trichlorophenol	5.0	U
92-52-4	1,1´-Biphenyl	5.0	U
91-58-7	2-Chloronaphthalene	5.0	U
88-74-4	2-Nitroaniline	10	U
131-11-3	Dimethylphthalate	5.0	U
606-20-2	2,6-Dinitrotoluene	5.0	U
208-96-8	Acenaphthylene	5.0	U
99-09-2	3-Nitroaniline	10	U
83-32-9	Acenaphthene	5.0	U

SOM01.2 (6/2007)

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AA0

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M1237-01B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S4F4569.D

Level: (LOW/MED) LOW Extraction: (Type) CONT

% Moisture: Decanted: (Y/N) Date Received: 07/24/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 07/29/2013

Injection Volume: 2.0 (uL) GPC Factor: 1.00 Date Analyzed: 07/30/2013

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
51-28-5	2,4-Dinitrophenol	10	U
100-02-7	4-Nitrophenol	10	U
132-64-9	Dibenzofuran	5.0	U
121-14-2	2,4-Dinitrotoluene	5.0	U
84-66-2	Diethylphthalate	5.0	U
86-73-7	Fluorene	5.0	U
7005-72-3	4-Chlorophenyl-phenylether	5.0	U
100-01-6	4-Nitroaniline	10	U
534-52-1	4,6-Dinitro-2-methylphenol	10	U
86-30-6	N-Nitrosodiphenylamine (1)	5.0	U
95-94-3	1,2,4,5-Tetrachlorobenzene	5.0	U
101-55-3	4-Bromophenyl-phenylether	5.0	U
118-74-1	Hexachlorobenzene	5.0	U
1912-24-9	Atrazine	5.0	U
87-86-5	Pentachlorophenol	10	U
85-01-8	Phenanthrene	5.0	U
120-12-7	Anthracene	5.0	U
86-74-8	Carbazole	5.0	U
84-74-2	Di-n-butylphthalate	5.0	U
206-44-0	Fluoranthene	5.0	U
129-00-0	Pyrene	5.0	U
85-68-7	Butylbenzylphthalate	5.0	U
91-94-1	3,3'-Dichlorobenzidine	5.0	U
56-55-3	Benzo(a)anthracene	5.0	U
218-01-9	Chrysene	5.0	U
117-81-7	Bis(2-ethylhexyl)phthalate	5.0	U
117-84-0	Di-n-octylphthalate	5.0	U
205-99-2	Benzo(b)fluoranthene	5.0	U
207-08-9	Benzo(k)fluoranthene	5.0	U
50-32-8	Benzo(a)pyrene	5.0	U
193-39-5	Indeno(1,2,3-cd)pyrene	5.0	U
53-70-3	Dibenzo(a,h)anthracene	5.0	U
191-24-2	Benzo(g,h,i)perylene	5.0	U
58-90-2	2,3,4,6-Tetrachlorophenol	5.0	U

(1) Cannot be separated from Diphenylamine

SOM01.2 (6/2007)

1K - FORM I SV-TIC

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E0AA0

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M1237-01B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S4F4569.D

Level: (TRACE or LOW/MED) LOW Extraction: (Type) CONT

% Moisture: Decanted: (Y/N) Date Received: 07/24/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 07/29/2013

Injection Volume: 2.0 (uL) GPC Factor: 1.00 Date Analyzed: 07/30/2013

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	4.462	2.0	J
02		Unknown-02	5.414	8.1	J
03		Unknown-03	5.600	5.5	J
04		Unknown-04	6.801	8.7	J
	E966796[2]	Total Alkanes	N/A		

[2]EPA-designated Registry Number.

SOM01.2 (6/2007)

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AA1

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M1237-02B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S4F4570.D

Level: (LOW/MED) LOW Extraction: (Type) CONT

% Moisture: Decanted: (Y/N) Date Received: 07/24/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 07/29/2013

Injection Volume: 2.0 (uL) GPC Factor: 1.00 Date Analyzed: 07/30/2013

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
100-52-7	Benzaldehyde	5.0	U
108-95-2	Phenol	5.0	U
111-44-4	Bis(2-chloroethyl)ether	5.0	U
95-57-8	2-Chlorophenol	5.0	U
95-48-7	2-Methylphenol	5.0	U
108-60-1	2,2´-Oxybis(1-chloropropane)	5.0	U
98-86-2	Acetophenone	5.0	U
106-44-5	4-Methylphenol	5.0	U
621-64-7	N-Nitroso-di-n-propylamine	5.0	U
67-72-1	Hexachloroethane	5.0	U
98-95-3	Nitrobenzene	5.0	U
78-59-1	Isophorone	5.0	U
88-75-5	2-Nitrophenol	5.0	U
105-67-9	2,4-Dimethylphenol	5.0	U
111-91-1	Bis(2-chloroethoxy)methane	5.0	U
120-83-2	2,4-Dichlorophenol	5.0	U
91-20-3	Naphthalene	5.0	U
106-47-8	4-Chloroaniline	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
105-60-2	Caprolactam	5.0	U
59-50-7	4-Chloro-3-methylphenol	5.0	U
91-57-6	2-Methylnaphthalene	5.0	U
77-47-4	Hexachlorocyclopentadiene	5.0	U
88-06-2	2,4,6-Trichlorophenol	5.0	U
95-95-4	2,4,5-Trichlorophenol	5.0	U
92-52-4	1,1´-Biphenyl	5.0	U
91-58-7	2-Chloronaphthalene	5.0	U
88-74-4	2-Nitroaniline	10	U
131-11-3	Dimethylphthalate	5.0	U
606-20-2	2,6-Dinitrotoluene	5.0	U
208-96-8	Acenaphthylene	5.0	U
99-09-2	3-Nitroaniline	10	U
83-32-9	Acenaphthene	5.0	U

SOM01.2 (6/2007)

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AA1

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M1237-02B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S4F4570.D

Level: (LOW/MED) LOW Extraction: (Type) CONT

% Moisture: Decanted: (Y/N) Date Received: 07/24/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 07/29/2013

Injection Volume: 2.0 (uL) GPC Factor: 1.00 Date Analyzed: 07/30/2013

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
51-28-5	2,4-Dinitrophenol	10	U
100-02-7	4-Nitrophenol	10	U
132-64-9	Dibenzofuran	5.0	U
121-14-2	2,4-Dinitrotoluene	5.0	U
84-66-2	Diethylphthalate	5.0	U
86-73-7	Fluorene	5.0	U
7005-72-3	4-Chlorophenyl-phenylether	5.0	U
100-01-6	4-Nitroaniline	10	U
534-52-1	4,6-Dinitro-2-methylphenol	10	U
86-30-6	N-Nitrosodiphenylamine 1	5.0	U
95-94-3	1,2,4,5-Tetrachlorobenzene	5.0	U
101-55-3	4-Bromophenyl-phenylether	5.0	U
118-74-1	Hexachlorobenzene	5.0	U
1912-24-9	Atrazine	5.0	U
87-86-5	Pentachlorophenol	10	U
85-01-8	Phenanthrene	5.0	U
120-12-7	Anthracene	5.0	U
86-74-8	Carbazole	5.0	U
84-74-2	Di-n-butylphthalate	5.0	U
206-44-0	Fluoranthene	5.0	U
129-00-0	Pyrene	5.0	U
85-68-7	Butylbenzylphthalate	5.0	U
91-94-1	3,3'-Dichlorobenzidine	5.0	U
56-55-3	Benzo(a)anthracene	5.0	U
218-01-9	Chrysene	5.0	U
117-81-7	Bis(2-ethylhexyl)phthalate	5.0	U
117-84-0	Di-n-octylphthalate	5.0	U
205-99-2	Benzo(b)fluoranthene	5.0	U
207-08-9	Benzo(k)fluoranthene	5.0	U
50-32-8	Benzo(a)pyrene	5.0	U
193-39-5	Indeno(1,2,3-cd)pyrene	5.0	U
53-70-3	Dibenzo(a,h)anthracene	5.0	U
191-24-2	Benzo(g,h,i)perylene	5.0	U
58-90-2	2,3,4,6-Tetrachlorophenol	5.0	U

(1) Cannot be separated from Diphenylamine

SOM01.2 (6/2007)

1K - FORM I SV-TIC
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
E0AA1

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M1237-02B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S4F4570.D

Level: (TRACE or LOW/MED) LOW Extraction: (Type) CONT

% Moisture: Decanted: (Y/N) Date Received: 07/24/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 07/29/2013

Injection Volume: 2.0 (uL) GPC Factor: 1.00 Date Analyzed: 07/30/2013

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	4.741	2.8	J
02		Unknown-02	5.414	4.8	J
03		Unknown-03	5.590	2.7	J
04		Unknown-04	6.790	6.0	J
05		Unknown-05	8.923	2.1	J
	E966796[2]	Total Alkanes	N/A		

[2]EPA-designated Registry Number.

SOM01.2 (6/2007)

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AA2

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM

Case No.: 43638

Mod. Ref No.:

SDG No.: E0AA0

Matrix: (SOIL/SED/WATER) WATER

Lab Sample ID: M1237-03B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: S4F4571.D

Level: (LOW/MED) LOW

Extraction: (Type) CONT

% Moisture:

Decanted: (Y/N)

Date Received: 07/24/2013

Concentrated Extract Volume: 1000 (uL)

Date Extracted: 07/29/2013

Injection Volume: 2.0 (uL)

GPC Factor: 1.00

Date Analyzed: 07/30/2013

GPC Cleanup: (Y/N) N

pH:

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
100-52-7	Benzaldehyde	5.0	U
108-95-2	Phenol	5.0	U
111-44-4	Bis(2-chloroethyl)ether	5.0	U
95-57-8	2-Chlorophenol	5.0	U
95-48-7	2-Methylphenol	5.0	U
108-60-1	2,2'-Oxybis(1-chloropropane)	5.0	U
98-86-2	Acetophenone	5.0	U
106-44-5	4-Methylphenol	5.0	U
621-64-7	N-Nitroso-di-n-propylamine	5.0	U
67-72-1	Hexachloroethane	5.0	U
98-95-3	Nitrobenzene	5.0	U
78-59-1	Isophorone	5.0	U
88-75-5	2-Nitrophenol	5.0	U
105-67-9	2,4-Dimethylphenol	5.0	U
111-91-1	Bis(2-chloroethoxy)methane	5.0	U
120-83-2	2,4-Dichlorophenol	5.0	U
91-20-3	Naphthalene	5.0	U
106-47-8	4-Chloroaniline	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
105-60-2	Caprolactam	5.0	U
59-50-7	4-Chloro-3-methylphenol	5.0	U
91-57-6	2-Methylnaphthalene	5.0	U
77-47-4	Hexachlorocyclopentadiene	5.0	U
88-06-2	2,4,6-Trichlorophenol	5.0	U
95-95-4	2,4,5-Trichlorophenol	5.0	U
92-52-4	1,1'-Biphenyl	5.0	U
91-58-7	2-Chloronaphthalene	5.0	U
88-74-4	2-Nitroaniline	10	U
131-11-3	Dimethylphthalate	5.0	U
606-20-2	2,6-Dinitrotoluene	5.0	U
208-96-8	Acenaphthylene	5.0	U
99-09-2	3-Nitroaniline	10	U
83-32-9	Acenaphthene	5.0	U

SOM01.2 (6/2007)

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AA2

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M1237-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S4F4571.D

Level: (LOW/MED) LOW Extraction: (Type) CONT

% Moisture: Decanted: (Y/N) Date Received: 07/24/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 07/29/2013

Injection Volume: 2.0 (uL) GPC Factor: 1.00 Date Analyzed: 07/30/2013

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
51-28-5	2,4-Dinitrophenol	10	U
100-02-7	4-Nitrophenol	10	U
132-64-9	Dibenzofuran	5.0	U
121-14-2	2,4-Dinitrotoluene	5.0	U
84-66-2	Diethylphthalate	5.0	U
86-73-7	Fluorene	5.0	U
7005-72-3	4-Chlorophenyl-phenylether	5.0	U
100-01-6	4-Nitroaniline	10	U
534-52-1	4,6-Dinitro-2-methylphenol	10	U
86-30-6	N-Nitrosodiphenylamine (1)	5.0	U
95-94-3	1,2,4,5-Tetrachlorobenzene	5.0	U
101-55-3	4-Bromophenyl-phenylether	5.0	U
118-74-1	Hexachlorobenzene	5.0	U
1912-24-9	Atrazine	5.0	U
87-86-5	Pentachlorophenol	10	U
85-01-8	Phenanthrene	5.0	U
120-12-7	Anthracene	5.0	U
86-74-8	Carbazole	5.0	U
84-74-2	Di-n-butylphthalate	5.0	U
206-44-0	Fluoranthene	5.0	U
129-00-0	Pyrene	5.0	U
85-68-7	Butylbenzylphthalate	5.0	U
91-94-1	3,3'-Dichlorobenzidine	5.0	U
56-55-3	Benzo(a)anthracene	5.0	U
218-01-9	Chrysene	5.0	U
117-81-7	Bis(2-ethylhexyl)phthalate	5.0	U
117-84-0	Di-n-octylphthalate	5.0	U
205-99-2	Benzo(b)fluoranthene	5.0	U
207-08-9	Benzo(k)fluoranthene	5.0	U
50-32-8	Benzo(a)pyrene	5.0	U
193-39-5	Indeno(1,2,3-cd)pyrene	5.0	U
53-70-3	Dibenzo(a,h)anthracene	5.0	U
191-24-2	Benzo(g,h,i)perylene	5.0	U
58-90-2	2,3,4,6-Tetrachlorophenol	5.0	U

(1) Cannot be separated from Diphenylamine

SOM01.2 (6/2007)

1K - FORM I SV-TIC

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E0AA2

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M1237-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S4F4571.D

Level: (TRACE or LOW/MED) LOW Extraction: (Type) CONT

% Moisture: Decanted: (Y/N) Date Received: 07/24/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 07/29/2013

Injection Volume: 2.0 (uL) GPC Factor: 1.00 Date Analyzed: 07/30/2013

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	5.414	5.5	J
02		Unknown-02	5.590	2.1	J
03		Unknown-03	6.791	6.8	J
04		Unknown-04	12.980	3.1	J
	E966796[2]	Total Alkanes	N/A		

[2]EPA-designated Registry Number.

SOM01.2 (6/2007)

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AA3

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M1237-04B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S4F4572.D

Level: (LOW/MED) LOW Extraction: (Type) CONT

% Moisture: Decanted: (Y/N) Date Received: 07/24/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 07/29/2013

Injection Volume: 2.0 (uL) GPC Factor: 1.00 Date Analyzed: 07/30/2013

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
100-52-7	Benzaldehyde	5.0	U
108-95-2	Phenol	5.0	U
111-44-4	Bis(2-chloroethyl)ether	5.0	U
95-57-8	2-Chlorophenol	5.0	U
95-48-7	2-Methylphenol	5.0	U
108-60-1	2,2'-Oxybis(1-chloropropane)	5.0	U
98-86-2	Acetophenone	5.0	U
106-44-5	4-Methylphenol	5.0	U
621-64-7	N-Nitroso-di-n-propylamine	5.0	U
67-72-1	Hexachloroethane	5.0	U
98-95-3	Nitrobenzene	5.0	U
78-59-1	Isophorone	5.0	U
88-75-5	2-Nitrophenol	5.0	U
105-67-9	2,4-Dimethylphenol	5.0	U
111-91-1	Bis(2-chloroethoxy)methane	5.0	U
120-83-2	2,4-Dichlorophenol	5.0	U
91-20-3	Naphthalene	5.0	U
106-47-8	4-Chloroaniline	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
105-60-2	Caprolactam	5.0	U
59-50-7	4-Chloro-3-methylphenol	5.0	U
91-57-6	2-Methylnaphthalene	5.0	U
77-47-4	Hexachlorocyclopentadiene	5.0	U
88-06-2	2,4,6-Trichlorophenol	5.0	U
95-95-4	2,4,5-Trichlorophenol	5.0	U
92-52-4	1,1'-Biphenyl	5.0	U
91-58-7	2-Chloronaphthalene	5.0	U
88-74-4	2-Nitroaniline	10	U
131-11-3	Dimethylphthalate	5.0	U
606-20-2	2,6-Dinitrotoluene	5.0	U
208-96-8	Acenaphthylene	5.0	U
99-09-2	3-Nitroaniline	10	U
83-32-9	Acenaphthene	5.0	U

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AA3

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM

Case No.: 43638

Mod. Ref No.:

SDG No.: E0AA0

Matrix: (SOIL/SED/WATER) WATER

Lab Sample ID: M1237-04B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: S4F4572.D

Level: (LOW/MED) LOW

Extraction: (Type) CONT

% Moisture:

Decanted: (Y/N)

Date Received: 07/24/2013

Concentrated Extract Volume: 1000 (uL)

Date Extracted: 07/29/2013

Injection Volume: 2.0 (uL)

GPC Factor: 1.00

Date Analyzed: 07/30/2013

GPC Cleanup: (Y/N) N

pH:

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
51-28-5	2,4-Dinitrophenol	10	U
100-02-7	4-Nitrophenol	10	U
132-64-9	Dibenzofuran	5.0	U
121-14-2	2,4-Dinitrotoluene	5.0	U
84-66-2	Diethylphthalate	5.0	U
86-73-7	Fluorene	5.0	U
7005-72-3	4-Chlorophenyl-phenylether	5.0	U
100-01-6	4-Nitroaniline	10	U
534-52-1	4,6-Dinitro-2-methylphenol	10	U
86-30-6	N-Nitrosodiphenylamine 1	5.0	U
95-94-3	1,2,4,5-Tetrachlorobenzene	5.0	U
101-55-3	4-Bromophenyl-phenylether	5.0	U
118-74-1	Hexachlorobenzene	5.0	U
1912-24-9	Atrazine	5.0	U
87-86-5	Pentachlorophenol	10	U
85-01-8	Phenanthrene	5.0	U
120-12-7	Anthracene	5.0	U
86-74-8	Carbazole	5.0	U
84-74-2	Di-n-butylphthalate	5.0	U
206-44-0	Fluoranthene	5.0	U
129-00-0	Pyrene	5.0	U
85-68-7	Butylbenzylphthalate	5.0	U
91-94-1	3,3'-Dichlorobenzidine	5.0	U
56-55-3	Benzo(a)anthracene	5.0	U
218-01-9	Chrysene	5.0	U
117-81-7	Bis(2-ethylhexyl)phthalate	5.0	U
117-84-0	Di-n-octylphthalate	5.0	U
205-99-2	Benzo(b)fluoranthene	5.0	U
207-08-9	Benzo(k)fluoranthene	5.0	U
50-32-8	Benzo(a)pyrene	5.0	U
193-39-5	Indeno(1,2,3-cd)pyrene	5.0	U
53-70-3	Dibenzo(a,h)anthracene	5.0	U
191-24-2	Benzo(g,h,i)perylene	5.0	U
58-90-2	2,3,4,6-Tetrachlorophenol	5.0	U

(1) Cannot be separated from Diphenylamine

SOM01.2 (6/2007)

1K - FORM I SV-TIC
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
E0AA3

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M1237-04B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S4F4572.D

Level: (TRACE or LOW/MED) LOW Extraction: (Type) CONT

% Moisture: Decanted: (Y/N) Date Received: 07/24/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 07/29/2013

Injection Volume: 2.0 (uL) GPC Factor: 1.00 Date Analyzed: 07/30/2013

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	5.176	2.3	J
02		Unknown-02	5.414	7.6	J
03		Unknown-03	5.590	5.6	J
04		Unknown-04	6.449	2.3	J
05		Unknown-05	6.811	11	J
06		Unknown-06	12.980	2.0	J
07		Unknown-07	13.322	3.4	J
	E966796 [2]	Total Alkanes	N/A		

[2] EPA-designated Registry Number.

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AA3MS

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM

Case No.: 43638

Mod. Ref No.:

SDG No.: E0AA0

Matrix: (SOIL/SED/WATER) WATER

Lab Sample ID: M1237-04BMS

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: S4F4581.D

Level: (LOW/MED) LOW

Extraction: (Type) CONT

% Moisture:

Decanted: (Y/N)

Date Received: 07/24/2013

Concentrated Extract Volume: 1000 (uL)

Date Extracted: 07/29/2013

Injection Volume: 2.0 (uL)

GPC Factor: 1.00

Date Analyzed: 08/02/2013

GPC Cleanup: (Y/N) N

pH:

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
100-52-7	Benzaldehyde	5.0	U
108-95-2	Phenol	29	
111-44-4	Bis(2-chloroethyl)ether	5.0	U
95-57-8	2-Chlorophenol	30	
95-48-7	2-Methylphenol	5.0	U
108-60-1	2,2'-Oxybis(1-chloropropane)	5.0	U
98-86-2	Acetophenone	5.0	U
106-44-5	4-Methylphenol	5.0	U
621-64-7	N-Nitroso-di-n-propylamine	24	
67-72-1	Hexachloroethane	5.0	U
98-95-3	Nitrobenzene	5.0	U
78-59-1	Isophorone	5.0	U
88-75-5	2-Nitrophenol	5.0	U
105-67-9	2,4-Dimethylphenol	5.0	U
111-91-1	Bis(2-chloroethoxy)methane	5.0	U
120-83-2	2,4-Dichlorophenol	5.0	U
91-20-3	Naphthalene	5.0	U
106-47-8	4-Chloroaniline	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
105-60-2	Caprolactam	5.0	U
59-50-7	4-Chloro-3-methylphenol	32	
91-57-6	2-Methylnaphthalene	5.0	U
77-47-4	Hexachlorocyclopentadiene	5.0	U
88-06-2	2,4,6-Trichlorophenol	5.0	U
95-95-4	2,4,5-Trichlorophenol	5.0	U
92-52-4	1,1'-Biphenyl	5.0	U
91-58-7	2-Chloronaphthalene	5.0	U
88-74-4	2-Nitroaniline	10	U
131-11-3	Dimethylphthalate	5.0	U
606-20-2	2,6-Dinitrotoluene	5.0	U
208-96-8	Acenaphthylene	5.0	U
99-09-2	3-Nitroaniline	10	U
83-32-9	Acenaphthene	28	

SOM01.2 (6/2007)

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AA3MS

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M1237-04BMS

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S4F4581.D

Level: (LOW/MED) LOW Extraction: (Type) CONT

% Moisture: Decanted: (Y/N) Date Received: 07/24/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 07/29/2013

Injection Volume: 2.0 (uL) GPC Factor: 1.00 Date Analyzed: 08/02/2013

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
51-28-5	2,4-Dinitrophenol	10	U
100-02-7	4-Nitrophenol	35	
132-64-9	Dibenzofuran	5.0	U
121-14-2	2,4-Dinitrotoluene	33	
84-66-2	Diethylphthalate	5.0	U
86-73-7	Fluorene	5.0	U
7005-72-3	4-Chlorophenyl-phenylether	5.0	U
100-01-6	4-Nitroaniline	10	U
534-52-1	4,6-Dinitro-2-methylphenol	10	U
86-30-6	N-Nitrosodiphenylamine [1]	5.0	U
95-94-3	1,2,4,5-Tetrachlorobenzene	5.0	U
101-55-3	4-Bromophenyl-phenylether	5.0	U
118-74-1	Hexachlorobenzene	5.0	U
1912-24-9	Atrazine	5.0	U
87-86-5	Pentachlorophenol	40	
85-01-8	Phenanthrene	5.0	U
120-12-7	Anthracene	5.0	U
86-74-8	Carbazole	5.0	U
84-74-2	Di-n-butylphthalate	5.0	U
206-44-0	Fluoranthene	5.0	U
129-00-0	Pyrene	20	
85-68-7	Butylbenzylphthalate	5.0	U
91-94-1	3,3'-Dichlorobenzidine	5.0	U
56-55-3	Benzo(a)anthracene	5.0	U
218-01-9	Chrysene	5.0	U
117-81-7	Bis(2-ethylhexyl)phthalate	5.0	U
117-84-0	Di-n-octylphthalate	5.0	U
205-99-2	Benzo(b)fluoranthene	5.0	U
207-08-9	Benzo(k)fluoranthene	5.0	U
50-32-8	Benzo(a)pyrene	5.0	U
193-39-5	Indeno(1,2,3-cd)pyrene	5.0	U
53-70-3	Dibenzo(a,h)anthracene	5.0	U
191-24-2	Benzo(g,h,i)perylene	5.0	U
58-90-2	2,3,4,6-Tetrachlorophenol	5.0	U

(1) Cannot be separated from Diphenylamine

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AA3MSD

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638

Mod. Ref No.: SDG No.: E0AA0

Matrix: (SOIL/SED/WATER) WATER

Lab Sample ID: M1237-04BMSD

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: S4F4574.D

Level: (LOW/MED) LOW

Extraction: (Type) CONT

% Moisture: Decanted: (Y/N)

Date Received: 07/24/2013

Concentrated Extract Volume: 1000 (uL)

Date Extracted: 07/29/2013

Injection Volume: 2.0 (µL) GPC Factor: 1.00

Date Analyzed: 07/30/2013

GPC Cleanup: (Y/N) N pH:

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
100-52-7	Benzaldehyde	5.0	U
108-95-2	Phenol	33	
111-44-4	Bis(2-chloroethyl)ether	5.0	U
95-57-8	2-Chlorophenol	34	
95-48-7	2-Methylphenol	5.0	U
108-60-1	2,2'-Oxybis(1-chloropropane)	5.0	U
98-86-2	Acetophenone	5.0	U
106-44-5	4-Methylphenol	5.0	U
621-64-7	N-Nitroso-di-n-propylamine	29	
67-72-1	Hexachloroethane	5.0	U
98-95-3	Nitrobenzene	5.0	U
78-59-1	Isophorone	5.0	U
88-75-5	2-Nitrophenol	5.0	U
105-67-9	2,4-Dimethylphenol	5.0	U
111-91-1	Bis(2-chloroethoxy)methane	5.0	U
120-83-2	2,4-Dichlorophenol	5.0	U
91-20-3	Naphthalene	5.0	U
106-47-8	4-Chloroaniline	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
105-60-2	Caprolactam	5.0	U
59-50-7	4-Chloro-3-methylphenol	32	
91-57-6	2-Methylnaphthalene	5.0	U
77-47-4	Hexachlorocyclopentadiene	5.0	U
88-06-2	2,4,6-Trichlorophenol	5.0	U
95-95-4	2,4,5-Trichlorophenol	5.0	U
92-52-4	1,1'-Biphenyl	5.0	U
91-58-7	2-Chloronaphthalene	5.0	U
88-74-4	2-Nitroaniline	10	U
131-11-3	Dimethylphthalate	5.0	U
606-20-2	2,6-Dinitrotoluene	5.0	U
208-96-8	Acenaphthylene	5.0	U
99-09-2	3-Nitroaniline	10	U
83-32-9	Acenaphthene	29	

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AA3MSD

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M1237-04BMSD

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S4F4574.D

Level: (LOW/MED) LOW Extraction: (Type) CONT

% Moisture: Decanted: (Y/N) Date Received: 07/24/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 07/29/2013

Injection Volume: 2.0 (uL) GPC Factor: 1.00 Date Analyzed: 07/30/2013

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
51-28-5	2,4-Dinitrophenol	10	U
100-02-7	4-Nitrophenol	32	
132-64-9	Dibenzofuran	5.0	U
121-14-2	2,4-Dinitrotoluene	29	
84-66-2	Diethylphthalate	5.0	U
86-73-7	Fluorene	5.0	U
7005-72-3	4-Chlorophenyl-phenylether	5.0	U
100-01-6	4-Nitroaniline	10	U
534-52-1	4,6-Dinitro-2-methylphenol	10	U
86-30-6	N-Nitrosodiphenylamine 1	5.0	U
95-94-3	1,2,4,5-Tetrachlorobenzene	5.0	U
101-55-3	4-Bromophenyl-phenylether	5.0	U
118-74-1	Hexachlorobenzene	5.0	U
1912-24-9	Atrazine	5.0	U
87-86-5	Pentachlorophenol	45	
85-01-8	Phenanthrene	5.0	U
120-12-7	Anthracene	5.0	U
86-74-8	Carbazole	5.0	U
84-74-2	Di-n-butylphthalate	5.0	U
206-44-0	Fluoranthene	5.0	U
129-00-0	Pyrene	20	
85-68-7	Butylbenzylphthalate	5.0	U
91-94-1	3,3'-Dichlorobenzidine	5.0	U
56-55-3	Benzo(a)anthracene	5.0	U
218-01-9	Chrysene	5.0	U
117-81-7	Bis(2-ethylhexyl)phthalate	5.0	U
117-84-0	Di-n-octylphthalate	5.0	U
205-99-2	Benzo(b)fluoranthene	5.0	U
207-08-9	Benzo(k)fluoranthene	5.0	U
50-32-8	Benzo(a)pyrene	5.0	U
193-39-5	Indeno(1,2,3-cd)pyrene	5.0	U
53-70-3	Dibenzo(a,h)anthracene	5.0	U
191-24-2	Benzo(g,h,i)perylene	5.0	U
58-90-2	2,3,4,6-Tetrachlorophenol	5.0	U

(1) Cannot be separated from Diphenylamine

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK4M

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638

Mod. Ref No.: SDG No.: E0AA0

Matrix: (SOIL/SED/WATER) WATER

Lab Sample ID: MB-72921

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: S4F4568.D

Level: (LOW/MED) LOW

Extraction: (Type) CONT

% Moisture: Decanted: (Y/N)

Date Received:

Concentrated Extract Volume: 1000 (uL)

Date Extracted: 07/29/2013

Injection Volume: 2.0 (uL) GPC Factor: 1.00

Date Analyzed: 07/30/2013

GPC Cleanup: (Y/N) N pH:

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) pG/L	Q
100-52-7	Benzaldehyde	5.0	U
108-95-2	Phenol	5.0	U
111-44-4	Bis(2-chloroethyl)ether	5.0	U
95-57-8	2-Chlorophenol	5.0	U
95-48-7	2-Methylphenol	5.0	U
108-60-1	2,2'-Oxybis(1-chloropropane)	5.0	U
98-86-2	Acetophenone	5.0	U
106-44-5	4-Methylphenol	5.0	U
621-64-7	N-Nitroso-di-n-propylamine	5.0	U
67-72-1	Hexachloroethane	5.0	U
98-95-3	Nitrobenzene	5.0	U
78-59-1	Isophorone	5.0	U
88-75-5	2-Nitrophenol	5.0	U
105-67-9	2,4-Dimethylphenol	5.0	U
111-91-1	Bis(2-chloroethoxy)methane	5.0	U
120-83-2	2,4-Dichlorophenol	5.0	U
91-20-3	Naphthalene	5.0	U
106-47-8	4-Chloroaniline	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
105-60-2	Caprolactam	5.0	U
59-50-7	4-Chloro-3-methylphenol	5.0	U
91-57-6	2-Methylnaphthalene	5.0	U
77-47-4	Hexachlorocyclopentadiene	5.0	U
88-06-2	2,4,6-Trichlorophenol	5.0	U
95-95-4	2,4,5-Trichlorophenol	5.0	U
92-52-4	1,1'-Biphenyl	5.0	U
91-58-7	2-Chloronaphthalene	5.0	U
88-74-4	2-Nitroaniline	10	U
131-11-3	Dimethylphthalate	5.0	U
606-20-2	2,6-Dinitrotoluene	5.0	U
208-96-8	Acenaphthylene	5.0	U
99-09-2	3-Nitroaniline	10	U
83-32-9	Acenaphthene	5.0	U

SOM01.2 (6/2007)

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK4M

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: MB-72921

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S4F4568.D

Level: (LOW/MED) LOW Extraction: (Type) CONT

% Moisture: Decanted: (Y/N) Date Received:

Concentrated Extract Volume: 1000 (uL) Date Extracted: 07/29/2013

Injection Volume: 2.0 (uL) GPC Factor: 1.00 Date Analyzed: 07/30/2013

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
51-28-5	2,4-Dinitrophenol	10	U
100-02-7	4-Nitrophenol	10	U
132-64-9	Dibenzofuran	5.0	U
121-14-2	2,4-Dinitrotoluene	5.0	U
84-66-2	Diethylphthalate	5.0	U
86-73-7	Fluorene	5.0	U
7005-72-3	4-Chlorophenyl-phenylether	5.0	U
100-01-6	4-Nitroaniline	10	U
534-52-1	4,6-Dinitro-2-methylphenol	10	U
86-30-6	N-Nitrosodiphenylamine 1	5.0	U
95-94-3	1,2,4,5-Tetrachlorobenzene	5.0	U
101-55-3	4-Bromophenyl-phenylether	5.0	U
118-74-1	Hexachlorobenzene	5.0	U
1912-24-9	Atrazine	5.0	U
87-86-5	Pentachlorophenol	10	U
85-01-8	Phenanthrene	5.0	U
120-12-7	Anthracene	5.0	U
86-74-8	Carbazole	5.0	U
84-74-2	Di-n-butylphthalate	5.0	U
206-44-0	Fluoranthene	5.0	U
129-00-0	Pyrene	5.0	U
85-68-7	Butylbenzylphthalate	5.0	U
91-94-1	3,3'-Dichlorobenzidine	5.0	U
56-55-3	Benzo(a)anthracene	5.0	U
218-01-9	Chrysene	5.0	U
117-81-7	Bis(2-ethylhexyl)phthalate	5.0	U
117-84-0	Di-n-octylphthalate	5.0	U
205-99-2	Benzo(b)fluoranthene	5.0	U
207-08-9	Benzo(k)fluoranthene	5.0	U
50-32-8	Benzo(a)pyrene	5.0	U
193-39-5	Indeno(1,2,3-cd)pyrene	5.0	U
53-70-3	Dibenzo(a,h)anthracene	5.0	U
191-24-2	Benzo(g,h,i)perylene	5.0	U
58-90-2	2,3,4,6-Tetrachlorophenol	5.0	U

(1) Cannot be separated from Diphenylamine

SOM01.2 (6/2007)

1K - FORM I SV-TIC

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK4M

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: MB-72921

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S4F4568.D

Level: (TRACE or LOW/MED) LOW Extraction: (Type) CONT

% Moisture: Decanted: (Y/N) Date Received:

Concentrated Extract Volume: 1000 (uL) Date Extracted: 07/29/2013

Injection Volume: 2.0 (uL) GPC Factor: 1.00 Date Analyzed: 07/30/2013

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[2]	Total Alkanes	N/A		

[2]EPA-designated Registry Number.

SOM01.2 (6/2007)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY ~ REGION V

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Sample Delivery Group: EOAAO CERCLIS No: ILN000510872

Case No: 43638 Site Name/Location: CASHE CONSTRUCTION-IL

Contractor or EPA Lab: Mitkem Data User: WESTON

No. of Samples: 5 Date Sampled or Date Received: 7 Aug 13

Have Chain-of-Custody records been received? Yes X No ____
Have traffic reports or packing lists been received? Yes X No ____
If no, are traffic reports or packing list numbers written on the Chain-of-Custody Record?
Yes ____ No ____
If no, which traffic report or packing list numbers are missing?

Are basic data forms in? Yes X No ____
No of samples claimed: 5 No. of samples received: ____

Received by: Pat Hoeppner Date: 7 Aug 13

Received by LSSS: Pat Hoeppner Date: 8 Aug 13

Review started: 8/19/13 Reviewer Signature: [illegible]

Total time spent on review: 4 Date review completed: 8/19/13

Copied by: A. C. Harvey Date: August 22, 2013

Mailed to user by: Pat Hoeppner Date: 23 Aug 2013

DATA USER:
Please fill in the blanks below and return this form to:
Sylvia Griffin, Data Mgmt. Coordinator, Region V, ML-10C

Data received by: ____ Date: ____

Data review received by: ____ Date: ____

Inorganic Data Complete	[ ] Suitable for Intended Purpose [ ] T if OK
Organic Data Complete	[ ] Suitable for Intended Purpose [ ] T if OK
Dioxin data Complete	[ ] Suitable for Intended Purpose [ ] T if OK
SAS Data Complete	[ ] Suitable for Intended Purpose [ ] T if OK

PROBLEMS: Please indicate reasons why data are not suitable for your uses.

Received by Data Mgmt. Coordinator for Files. Date: ____

ESAT Controlled Number: ESAT5.417.0056d-pj, 23 Aug 13

DATE: August 23, 2013

Weston Solutions, Inc.
ATTN: **Ms. Tonya Balla**
750 East Bunker Court – Suite 500
Vernon Hills, IL 60061-1450

Site Name: **Castle Construction - IL – level 3 data validation**

Case	Lab	Samples	SDG	Matrix
43638	Mitkem	8	E0AC6	soil

Analysis: low volatiles/semivolatiles

Upon receipt of data, please check each package for completeness and note any missing deliverables below.

PLEASE! Send this form back to Sylvia Griffin, Data Management Coordinator after filling in the blanks below.

Data Received by:_____ Date:_____

PROBLEMS:

Please indicate if data is complete, and note if there are any deliverables missing from the cases noted above.

_____

_____

Received by Data Management Coordinator, CRL for file.

Signature:_____ Date:_____

FROM: **U.S. EPA - Region 5**
Sylvia Griffin
Central Regional Laboratory
536 S. Clark, 10th Floor
Chicago, IL 60605

Sent By: Pat Joyner
Data Coordinator
ESAT Region 5/**TechLaw**

Controlled Document

ESAT5.416.00284
ACA
8-22-13

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V
SUPERFUND DIVISION

DATE:

SUBJECT: Review of Data
Received for Review on: August 8, 2013

FROM: Timothy Prendiville, Supervisor (SR-6J)
Superfund Contract Management Section

TO: Data User: Weston
Email address: t.balla@westonsolutions.com

Level 3 Data Validation for the EXES program

We have reviewed the data for the following case:

Site Name: Castle Construction. (IL)

Case Number: 43638 SDG Number: E0AC6

Number and Type of Samples: 8 soil samples (low/medium VOA, SVOA)

Sample Numbers: E0AC6 – E0AC9, E0AD0 – E0AD3

Laboratory: Mitkem Hrs for Review:

Following are our findings:

CC: Howard Pham
Region 5 TPO
Mail Code: SA-5J

Case Number: 43638
Site Name: Castle Construction (IL)

SDG Number: E0AC6
Laboratory: Mitkem

Below is a summary of the out-of-control audits and the possible effects on the data for this case:

Eight (8) soil samples labeled E0AC6 thru E0AC9 and E0AD0 thru E0AD3 were collected on 07/25/13. The samples were received by Mitkem located at North Kingstown, RI on 07/26/13. All samples were received intact but at the temperature of 1.5°C. No sample results were qualified for temperature deficiency.

The samples were analyzed for the low/medium level volatile and semivolatile target compounds. All samples were analyzed according to CLP SOW SOM01.2 (6/2007) and reviewed according to the NFG for SOM01.2 and the SOP for ESAT 5/TechLaw Validation of Contract Laboratory Program Organic Data (Version 2.6.2).

Sample E0AC6 was designated by the samplers to be used for laboratory QC, i.e. MS / MSD analyses.

No samples were identified as field blanks. Sample E0AD3 may be the field duplicate of sample E0AD1. These two samples were collected at slightly different times, but the sample date, sampler, and sample locations are the same.

Reviewed by: Steffanie Tobin/Techlaw-ESAT
Date: August 22, 2013

Case Number: 43638
Site Name: Castle Construction (IL)

SDG Number: E0AC6
Laboratory: Mitkem

1. HOLDING TIME

No problems were found.

2. GC/MS TUNING AND GC INSTRUMENT PERFORMANCE

No problems were found.

3. CALIBRATION

The following volatile samples are associated with an initial calibration and CCVs in which a DMC did not meet relative response factor (RRF) criteria. Detected and non-detected compounds are not qualified.

E0AC6, E0AC6MS, E0AC6MSD, E0AC7, E0AC8, E0AC9, E0AD0, E0AD1, E0AD2, E0AD3, VBLKV5, VHBLKV5
1,4-Dioxane-d_8

The following volatile samples are associated with an initial calibration and CCVs in which a DMC exceeded percent relative standard deviation (%RSD) criteria. Detected and non-detected compounds are not qualified.

E0AC6, E0AC6MS, E0AC6MSD, E0AC7, E0AC8, E0AC9, E0AD0, E0AD1, E0AD2, E0AD3, VBLKV5, VHBLKV5
Vinyl chloride-d_3

The following volatile samples are associated with an initial calibration in which a DMC exceeded percent relative standard deviation (%RSD) criteria. Detected and non-detected compounds are not qualified.

E0AC6, E0AC6MS, E0AC6MSD, E0AC7, E0AC8, E0AC9, E0AD0, E0AD1, E0AD2, E0AD3, VBLKV5, VHBLKV5
1,1-Dichloroethene-d_2

The following volatile samples are associated with an opening CCV with relative response factors (RRF50) outside criteria. 1,4-Dioxane was not detected in the samples. Non-detected compounds are qualified "R".

E0AC6, E0AC6MS, E0AC6MSD, E0AC7, E0AC8, E0AC9, E0AD0, E0AD1, E0AD2, E0AD3, VBLKV5, VHBLKV5
1,4-Dioxane

The following semivolatile samples are associated with an initial calibration percent relative standard deviation (%RSD) outside criteria. Detected Pentachlorophenol in E0AC6MS and

E0AC6MSD are qualified "J". Non-detected Pentachlorophenol in the remaining samples are not qualified.

E0AC6, E0AC6MS, E0AC6MSD, E0AC7, E0AC8, E0AC9, E0AD0, E0AD1, E0AD2, E0AD3, SBLK4U
Pentachlorophenol

4. BLANKS

The following semivolatile samples have analyte concentrations reported less than the CRQL. The associated method blank concentration is less than the concentration criteria. Detected compounds are qualified "U". Non-detected compounds are not qualified. Reported sample concentrations have been elevated to the CRQL.

E0AD3
Butylbenzylphthalate

The following SVOA samples have TIC concentrations reported less than **5x** the associated method blanks concentrations. Detected compounds are qualified "U" and deleted from the TIC report.

Unknown @ 2.91; Unknown @ 2.99; Unknown @ 3.02
E0AC6, E0AC7, E0AC8, E0AC9, E0AD0, E0AD1, E0AD2, E0AD3

Unknown @ 2.93
E0AC7, E0AC9, E0AD0, E0AD1, E0AD2, E0AD3

Unknown @ 3.05
E0AC8, E0AD0, E0AD1, E0AD2

Unknown @ 5.53
E0AC6, E0AC7, E0AC8, E0AC9, E0AD0, E0AD1, E0AD2

5. DEUTERATED MONITORING COMPOUND AND SURROGATE RECOVERY

The following volatile samples have DMC/SMC recoveries above the upper limit of the criteria window. The compounds were not detected in the samples. Non-detected compounds are not qualified.

E0AC6
Cyclohexane, Benzene, Methylcyclohexane, 1,2-Dichloropropane, Bromodichloromethane

E0AD0
Dichlorodifluoromethane, Chloromethane, Bromomethane, Chloroethane, Carbon Disulfide, Benzene

The following volatile samples have one or more DMC/SMC recovery values is less than the primary lower limit but greater than or equal to the expanded lower limit of the criteria window. The compounds were not detected in the samples. Non-detected compounds are qualified "UJ".

E0AC6, E0AD0
cis-1,3-Dichloropropene, trans-1,3-Dichloropropene, 1,1,2-Trichloroethane

6A. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Sample E0AC6 was designated by the samplers to be used for laboratory QC, i.e. MS / MSD analyses.

The following semivolatile matrix spike/matrix spike duplicate samples have percent recoveries that are less than the lower acceptance limit. Pyrene was not detected in the unspiked sample. Non-detected Pyrene in the unspiked sample; E0AC6 is qualified as "UJ".

E0AC6MS
Pyrene

6B. LABORATORY CONTROL SAMPLE

Not applicable to these analyses.

7. FIELD BLANK AND FIELD DUPLICATE

No samples were identified as field blanks. Sample E0AD3 may be the field duplicate of sample E0AD1. These two samples were collected at slightly different times, but the sample date, sampler, and sample locations are the same. Results for Samples E0AD2 and E0AD3 are summarized in the following table:

Case Number: 43638
Site Name: Castle Construction (IL)

SDG Number: E0AC6
Laboratory: Mitkem

Analytes	Sample	E0AD1	E0AD3	RPDs
	DF,	1, ug/Kg	1, ug/Kg	
Sampling Date/ Time	07/25/13 13:00		07/25/13 13:10	
Station Locations	CC-SD01-(0-6)-072513		CC-SD01-(0-6)-072513D	
Acetophenone	ND		100	200
Phenanthrene	180		ND	200
Di-n-butylphthalate	120		140	15.4
Fluoranthene	200		ND	200
Pyrene	130		ND	200
Benzo(a)anthracene	85		ND	200
Chrysene	93		ND	200
Benzo(b)fluoranthene	70		ND	200
SVOA Tics	9		26	

Results are not qualified based upon the results of the field duplicates.

8. INTERNAL STANDARDS

No problems were found.

9. COMPOUND IDENTIFICATION

After reviewing the mass spectra and chromatograms it appears that all volatile and semivolatile compounds were properly identified.

10. COMPOUND QUANTITATION AND REPORTED DETECTION LIMITS

The following volatile samples have compound concentrations less than the CRQL. Detected compounds are qualified "J".

E0AC6, E0AD0
Acetone

The following semivolatile samples have compound concentrations less than the CRQL. Detected compounds are qualified "J".

E0AC9
Phenanthrene, Di-n-butylphthalate, Fluoranthene, Pyrene, Benzo(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene, Benzo(g,h,i)perylene

E0AD0
Di-n-butylphthalate

E0AD1
Phenanthrene, Di-n-butylphthalate, Fluoranthene, Pyrene, Benzo(a)anthracene, Chrysene, Benzo(b)fluoranthene

E0AD2
Acetophenone, Di-n-butylphthalate, Fluoranthene, Pyrene

E0AD3
Acetophenone, Di-n-butylphthalate

SBLK4U
Butylbenzylphthalate

A library search indicates a match at or above 85% for a TIC compound in the following semivolatile samples. Detected compounds are qualified "NJ".

Cas No. 83-47-6 .gamma.-Sitosterol
E0AD3

Cas No. 83-46-5 .beta.-Sitosterol
E0AD2

A library search indicates a match below 85% for a TIC compound in the following semivolatile samples. Detected compounds are qualified "J".

Unknown @ 2.91; Unknown @ 2.93; Unknown @ 2.99; Unknown @ 3.02; Unknown @ 3.87; Unknown @ 5.53
SBLK4U

Unknown @ 3.22; Unknown @ 8.84; Unknown @ 12.48; Unknown @ 12.91; Unknown @ 14.17
E0AD2, E0AD3

Unknown @ 3.40; Unknown @ 9.04; Unknown @ 9.61; Unknown @ 10.07; Unknown @ 10.51; Unknown @ 11.28
E0AD3

Unknown @ 3.60
E0AC6, E0AC7, E0AC9, E0AD0, E0AD2, E0AD3

Unknown @ 3.71
E0AC6, E0AC7, E0AC8, E0AC9, E0AD0, E0AD1, E0AD2, E0AD3

Unknown @ 4.33; Unknown @ 14.63
E0AC6

Unknown @ 5.11
E0AC9, E0AD0

Unknown @ 5.34
E0AC6, E0AC8, E0AC9, E0AD0, E0AD1, E0AD2, E0AD3

Unknown @ 5.65; Unknown @ 7.05; Unknown @ 7.24; Unknown @ 7.65; Unknown @ 10.87
E0AD0

Unknown @ 6.71
E0AC6, E0AC7, E0AC8, E0AC9, E0AD0, E0AD1, E0AD2, E0AD3

Unknown @ 7.36; Unknown @ 11.24
E0AC9

Unknown @ 7.40; Unknown @ 16.06; Unknown @ 16.39; Unknown @ 16.88
E0AD2

Unknown @ 7.97
E0AC6, E0AC7, E0AD0, E0AD2, E0AD3

Unknown @ 8.86
E0AC6, E0AC7, E0AC8, E0AC9, E0AD0, E0AD2, E0AD3

Unknown @ 8.93; Unknown @ 9.87; Unknown @ 11.55; Unknown @ 11.74
E0AD1, E0AD2, E0AD3

Unknown @ 11.44; Unknown @ 18.08
E0AC8

Unknown @ 11.70
E0AC9, E0AD0, E0AD2, E0AD3

Unknown @ 12.45
E0AC6, E0AC8, E0AD0, E0AD2, E0AD3

Unknown @ 13.23
E0AC8, E0AD0, E0AD1, E0AD2, E0AD3

Unknown @ 17.61
E0AD1

Unknown @ 18.27
E0AC8, E0AD2, E0AD3

11. SYSTEM PERFORMANCE

GC/MS baseline indicated acceptable performance.

12. ADDITIONAL INFORMATION

The following semivolatile samples had one or more tentatively identified compounds (TICs) identified as 'Unknown'. These TICs are not listed in the EXES Sample Summary Report but are included in the manually validated in the TIC report.

E0AC6, E0AC6MS, E0AC6MSD, E0AC7, E0AC8, E0AC9, E0AD0, E0AD1, E0AD2, E0AD3, SBLK4U

Case Number: 43638
Site Name: Castle Construction (IL)

SDG Number: E0AC6
Laboratory: Mitkem

CADRE Data Qualifier Sheet

Qualifiers	Data Qualifier Definitions
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J	The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the action limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a tentative identification.
NJ	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a tentative identification and the associated numerical value represents its approximate concentration.
R	The data are unusable. (The compound may or may not be present.)

Reviewed by: Steffanie Tobin/Techlaw-ESAT
Date: August 22, 2013

Sample Summary Report

Case No:	43638	Contract:	EPW11033	SDG No:	E0AC6	Lab Code:	MITKEM
Sample Number:	E0AC6	Method:	VOA_Low_Med	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD03-(0-6)-072513	pH:	7.0	Sample Date:	07/25/2013	Sample Time:	10:00:00
% Moisture :	31.36966			% Solids :			

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	7.9	ug/Kg	1.0	U	U	Yes	
Chloromethane	7.9	ug/Kg	1.0	U	U	Yes	
Vinyl chloride	7.9	ug/Kg	1.0	U	U	Yes	
Bromomethane	7.9	ug/Kg	1.0	U	U	Yes	
Chloroethane	7.9	ug/Kg	1.0	U	U	Yes	
Trichlorofluorom ethane	7.9	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethene	7.9	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloro-1,2,2-trifluoroethane	7.9	ug/Kg	1.0	U	U	Yes	
Acetone	9.1	ug/Kg	1.0	J	J	Yes	
Carbon disulfide	7.9	ug/Kg	1.0	U	U	Yes	
Methyl acetate	7.9	ug/Kg	1.0	U	U	Yes	
Methylene chloride	7.9	ug/Kg	1.0	U	U	Yes	
trans-1,2-Dichloroethene	7.9	ug/Kg	1.0	U	U	Yes	
Methyl tert-butyl ether	7.9	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethane	7.9	ug/Kg	1.0	U	U	Yes	
cis-1,2-Dichloroethene	7.9	ug/Kg	1.0	U	U	Yes	
2-Butanone	16	ug/Kg	1.0	U	U	Yes	
Bromochloromet hane	7.9	ug/Kg	1.0	U	U	Yes	
Chloroform	7.9	ug/Kg	1.0	U	U	Yes	
1,1,1-Trichloroethane	7.9	ug/Kg	1.0	U	U	Yes	
Cyclohexane	7.9	ug/Kg	1.0	U	U	Yes	
Carbon tetrachloride	7.9	ug/Kg	1.0	U	U	Yes	
Benzene	7.9	ug/Kg	1.0	U	U	Yes	
1,2-Dichloroethane	7.9	ug/Kg	1.0	U	U	Yes	
1,4-Dioxane	160	ug/Kg	1.0	U	R	Yes	
Trichloroethene	7.9	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Methylcyclohexane	7.9	ug/Kg	1.0	U	U	Yes	
1,2-Dichloropropane	7.9	ug/Kg	1.0	U	U	Yes	
Bromodichloromethane	7.9	ug/Kg	1.0	U	U	Yes	
cis-1,3-Dichloropropene	7.9	ug/Kg	1.0	U	UJ	Yes	
4-Methyl-2-pentanone	16	ug/Kg	1.0	U	U	Yes	
Toluene	7.9	ug/Kg	1.0	U	U	Yes	
trans-1,3-Dichloropropene	7.9	ug/Kg	1.0	U	UJ	Yes	
1,1,2-Trichloroethane	7.9	ug/Kg	1.0	U	UJ	Yes	
Tetrachloroethene	7.9	ug/Kg	1.0	U	U	Yes	
2-Hexanone	16	ug/Kg	1.0	U	U	Yes	
Dibromochloromethane	7.9	ug/Kg	1.0	U	U	Yes	
1,2-Dibromoethane	7.9	ug/Kg	1.0	U	U	Yes	
Chlorobenzene	7.9	ug/Kg	1.0	U	U	Yes	
Ethylbenzene	7.9	ug/Kg	1.0	U	U	Yes	
o-Xylene	7.9	ug/Kg	1.0	U	U	Yes	
m,p-Xylene	7.9	ug/Kg	1.0	U	U	Yes	
Styrene	7.9	ug/Kg	1.0	U	U	Yes	
Bromoform	7.9	ug/Kg	1.0	U	U	Yes	
Isopropylbenzene	7.9	ug/Kg	1.0	U	U	Yes	
1,1,2,2-Tetrachloroethane	7.9	ug/Kg	1.0	U	U	Yes	
1,3-Dichlorobenzene	7.9	ug/Kg	1.0	U	U	Yes	
1,4-Dichlorobenzene	7.9	ug/Kg	1.0	U	U	Yes	
1,2-Dichlorobenzene	7.9	ug/Kg	1.0	U	U	Yes	
1,2-Dibromo-3-chloropropane	7.9	ug/Kg	1.0	U	U	Yes	
1,2,4-Trichlorobenzene	7.9	ug/Kg	1.0	U	U	Yes	
1,2,3-Trichlorobenzene	7.9	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AC6	Lab Code: MITKEM
Sample Number: E0AC6	Method: BNA	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD03-(0-6)-072513	pH: 7.3	Sample Date: 07/25/2013	Sample Time: 10:00:00
% Moisture : 31.36966		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Benzaldehyde	250	ug/Kg	1.0	U	U	Yes	
Phenol	250	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethyl)ether	250	ug/Kg	1.0	U	U	Yes	
2-Chlorophenol	250	ug/Kg	1.0	U	U	Yes	
2-Methylphenol	250	ug/Kg	1.0	U	U	Yes	
2,2'-Oxybis(1-chloropropane)	250	ug/Kg	1.0	U	U	Yes	
Acetophenone	250	ug/Kg	1.0	U	U	Yes	
4-Methylphenol	250	ug/Kg	1.0	U	U	Yes	
N-Nitroso-di-n-propylamine	250	ug/Kg	1.0	U	U	Yes	
Hexachloroethane	250	ug/Kg	1.0	U	U	Yes	
Nitrobenzene	250	ug/Kg	1.0	U	U	Yes	
Isophorone	250	ug/Kg	1.0	U	U	Yes	
2-Nitrophenol	250	ug/Kg	1.0	U	U	Yes	
2,4-Dimethylphenol	250	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethoxy)methane	250	ug/Kg	1.0	U	U	Yes	
2,4-Dichlorophenol	250	ug/Kg	1.0	U	U	Yes	
Naphthalene	250	ug/Kg	1.0	U	U	Yes	
4-Chloroaniline	250	ug/Kg	1.0	U	U	Yes	
Hexachlorobutadiene	250	ug/Kg	1.0	U	U	Yes	
Caprolactam	250	ug/Kg	1.0	U	U	Yes	
4-Chloro-3-methylphenol	250	ug/Kg	1.0	U	U	Yes	
2-Methylnaphthalene	250	ug/Kg	1.0	U	U	Yes	
Hexachlorocyclopentadiene	250	ug/Kg	1.0	U	U	Yes	
2,4,6-Trichlorophenol	250	ug/Kg	1.0	U	U	Yes	
2,4,5-Trichlorophenol	250	ug/Kg	1.0	U	U	Yes	
1,1'-Biphenyl	250	ug/Kg	1.0	U	U	Yes	
2-Chloronaphthalene	250	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
2-Nitroaniline	480	ug/Kg	1.0	U	U	Yes	
Dimethylphthalate	250	ug/Kg	1.0	U	U	Yes	
2,6-Dinitrotoluene	250	ug/Kg	1.0	U	U	Yes	
Acenaphthylene	250	ug/Kg	1.0	U	U	Yes	
3-Nitroaniline	480	ug/Kg	1.0	U	U	Yes	
Acenaphthene	250	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrophenol	480	ug/Kg	1.0	U	U	Yes	
4-Nitrophenol	480	ug/Kg	1.0	U	U	Yes	
Dibenzofuran	250	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrotoluene	250	ug/Kg	1.0	U	U	Yes	
Diethylphthalate	250	ug/Kg	1.0	U	U	Yes	
Fluorene	250	ug/Kg	1.0	U	U	Yes	
4-Chlorophenyl-phenylether	250	ug/Kg	1.0	U	U	Yes	
4-Nitroaniline	480	ug/Kg	1.0	U	U	Yes	
4,6-Dinitro-2-methylphenol	480	ug/Kg	1.0	U	U	Yes	
N-Nitrosodiphenylamine	250	ug/Kg	1.0	U	U	Yes	
1,2,4,5-Tetrachlorobenzene	250	ug/Kg	1.0	U	U	Yes	
4-Bromophenyl-phenylether	250	ug/Kg	1.0	U	U	Yes	
Hexachlorobenzene	250	ug/Kg	1.0	U	U	Yes	
Atrazine	250	ug/Kg	1.0	U	U	Yes	
Pentachlorophenol	480	ug/Kg	1.0	U	U	Yes	
Phenanthrene	250	ug/Kg	1.0	U	U	Yes	
Anthracene	250	ug/Kg	1.0	U	U	Yes	
Carbazole	250	ug/Kg	1.0	U	U	Yes	
Di-n-butylphthalate	250	ug/Kg	1.0	U	U	Yes	
Fluoranthene	250	ug/Kg	1.0	U	U	Yes	
Pyrene	250	ug/Kg	1.0	U	UJ	Yes	
Butylbenzylphthalate	250	ug/Kg	1.0	U	U	Yes	
3,3'-Dichlorobenzidine	250	ug/Kg	1.0	U	U	Yes	
Benzo(a)anthracene	250	ug/Kg	1.0	U	U	Yes	
Chrysene	250	ug/Kg	1.0	U	U	Yes	
Bis(2-ethylhexyl)	250	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
phthalate	250	ug/Kg	1.0	U	U	Yes	
Di-n-octylphthalate	250	ug/Kg	1.0	U	U	Yes	
Benzo(b)fluoranthene	250	ug/Kg	1.0	U	U	Yes	
Benzo(k)fluoranthene	250	ug/Kg	1.0	U	U	Yes	
Benzo(a)pyrene	250	ug/Kg	1.0	U	U	Yes	
Indeno(1,2,3-cd)pyrene	250	ug/Kg	1.0	U	U	Yes	
Dibenzo(a,h)anthracene	250	ug/Kg	1.0	U	U	Yes	
Benzo(g,h,i)perylene	250	ug/Kg	1.0	U	U	Yes	
2,3,4,6-Tetrachlorophenol	250	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AC6	Lab Code: MITKEM
Sample Number: E0AC6MS	Method: BNA	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD03-(0-6)-072513	pH: 7.3	Sample Date: 07/25/2013	Sample Time: 10:00:00
% Moisture : 31.36966		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Phenol	1100	ug/Kg	1.0			Yes	
Benzaldehyde	240	ug/Kg	1.0	U	U	Yes	
2-Chlorophenol	1100	ug/Kg	1.0			Yes	
Bis(2-chloroethyl)ether	240	ug/Kg	1.0	U	U	Yes	
N-Nitroso-di-n-propylamine	880	ug/Kg	1.0			Yes	
4-Chloro-3-methylphenol	1100	ug/Kg	1.0			Yes	
Acenaphthene	980	ug/Kg	1.0			Yes	
2-Methylphenol	240	ug/Kg	1.0	U	U	Yes	
2,2'-Oxybis(1-chloropropane)	240	ug/Kg	1.0	U	U	Yes	
4-Nitrophenol	1300	ug/Kg	1.0			Yes	
2,4-Dinitrotoluene	1100	ug/Kg	1.0			Yes	
Acetophenone	240	ug/Kg	1.0	U	U	Yes	
4-Methylphenol	240	ug/Kg	1.0	U	U	Yes	
Pentachlorophenol	1400	ug/Kg	1.0		J	Yes	
Pyrene	620	ug/Kg	1.0			Yes	
Hexachloroethane	240	ug/Kg	1.0	U	U	Yes	
Nitrobenzene	240	ug/Kg	1.0	U	U	Yes	
Isophorone	240	ug/Kg	1.0	U	U	Yes	
2-Nitrophenol	240	ug/Kg	1.0	U	U	Yes	
2,4-Dimethylphenol	240	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethoxy)methane	240	ug/Kg	1.0	U	U	Yes	
2,4-Dichlorophenol	240	ug/Kg	1.0	U	U	Yes	
Naphthalene	240	ug/Kg	1.0	U	U	Yes	
4-Chloroaniline	240	ug/Kg	1.0	U	U	Yes	
Hexachlorobutadiene	240	ug/Kg	1.0	U	U	Yes	
Caprolactam	240	ug/Kg	1.0	U	U	Yes	
2-Methylnaphthalene	240	ug/Kg	1.0	U	U	Yes	
Hexachlorocyclopentadiene	240	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
2,4,6-Trichlorophenol	240	ug/Kg	1.0	U	U	Yes	
2,4,5-Trichlorophenol	240	ug/Kg	1.0	U	U	Yes	
1,1'-Biphenyl	240	ug/Kg	1.0	U	U	Yes	
2-Chloronaphthalene	240	ug/Kg	1.0	U	U	Yes	
2-Nitroaniline	470	ug/Kg	1.0	U	U	Yes	
Dimethylphthalate	240	ug/Kg	1.0	U	U	Yes	
2,6-Dinitrotoluene	240	ug/Kg	1.0	U	U	Yes	
Acenaphthylene	240	ug/Kg	1.0	U	U	Yes	
3-Nitroaniline	470	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrophenol	470	ug/Kg	1.0	U	U	Yes	
Dibenzofuran	240	ug/Kg	1.0	U	U	Yes	
Diethylphthalate	240	ug/Kg	1.0	U	U	Yes	
Fluorene	240	ug/Kg	1.0	U	U	Yes	
4-Chlorophenyl-phenylether	240	ug/Kg	1.0	U	U	Yes	
4-Nitroaniline	470	ug/Kg	1.0	U	U	Yes	
4,6-Dinitro-2-methylphenol	470	ug/Kg	1.0	U	U	Yes	
N-Nitrosodiphenylamine	240	ug/Kg	1.0	U	U	Yes	
1,2,4,5-Tetrachlorobenzene	240	ug/Kg	1.0	U	U	Yes	
4-Bromophenyl-phenylether	240	ug/Kg	1.0	U	U	Yes	
Hexachlorobenzene	240	ug/Kg	1.0	U	U	Yes	
Atrazine	240	ug/Kg	1.0	U	U	Yes	
Phenanthrene	240	ug/Kg	1.0	U	U	Yes	
Anthracene	240	ug/Kg	1.0	U	U	Yes	
Carbazole	240	ug/Kg	1.0	U	U	Yes	
Di-n-butylphthalate	240	ug/Kg	1.0	U	U	Yes	
Fluoranthene	240	ug/Kg	1.0	U	U	Yes	
Butylbenzylphthalate	240	ug/Kg	1.0	U	U	Yes	
3,3'-Dichlorobenzidine	240	ug/Kg	1.0	U	U	Yes	
Benzo(a)anthracene	240	ug/Kg	1.0	U	U	Yes	
Chrysene	240	ug/Kg	1.0	U	U	Yes	
Bis(2-ethylhexyl)	240	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
phthalate	240	ug/Kg	1.0	U	U	Yes	
Di-n-octylphthalate	240	ug/Kg	1.0	U	U	Yes	
Benzo(b)fluoranthene	240	ug/Kg	1.0	U	U	Yes	
Benzo(k)fluoranthene	240	ug/Kg	1.0	U	U	Yes	
Benzo(a)pyrene	240	ug/Kg	1.0	U	U	Yes	
Indeno(1,2,3-cd)pyrene	240	ug/Kg	1.0	U	U	Yes	
Dibenzo(a,h)anthracene	240	ug/Kg	1.0	U	U	Yes	
Benzo(g,h,i)perylene	240	ug/Kg	1.0	U	U	Yes	
2,3,4,6-Tetrachlorophenol	240	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AC6	Lab Code: MITKEM

Sample Number:	E0AC6MS	Method:	VOA_Low_Med	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD03-(0-6)-072513	pH:	7.0	Sample Date:	07/25/2013	Sample Time:	10:00:00
% Moisture :	31.36966			% Solids :			

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
1,1-Dichloroethene	50	ug/Kg	1.0			Yes	
Dichlorodifluoro methane	7.8	ug/Kg	1.0	U	U	Yes	
Benzene	64	ug/Kg	1.0			Yes	
Chloromethane	7.8	ug/Kg	1.0	U	U	Yes	
Vinyl chloride	7.8	ug/Kg	1.0	U	U	Yes	
Trichloroethene	67	ug/Kg	1.0			Yes	
Toluene	72	ug/Kg	1.0			Yes	
Bromomethane	7.8	ug/Kg	1.0	U	U	Yes	
Chloroethane	7.8	ug/Kg	1.0	U	U	Yes	
Chlorobenzene	70	ug/Kg	1.0			Yes	
Trichlorofluorom ethane	7.8	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloro-1,2,2-trifluoroethane	7.8	ug/Kg	1.0	U	U	Yes	
Acetone	16	ug/Kg	1.0	U	U	Yes	
Carbon disulfide	7.8	ug/Kg	1.0	U	U	Yes	
Methyl acetate	7.8	ug/Kg	1.0	U	U	Yes	
Methylene chloride	7.8	ug/Kg	1.0	U	U	Yes	
trans-1,2-Dichloroethene	7.8	ug/Kg	1.0	U	U	Yes	
Methyl tert-butyl ether	7.8	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethane	7.8	ug/Kg	1.0	U	U	Yes	
cis-1,2-Dichloroethene	7.8	ug/Kg	1.0	U	U	Yes	
2-Butanone	16	ug/Kg	1.0	U	U	Yes	
Bromochloromet hane	7.8	ug/Kg	1.0	U	U	Yes	
Chloroform	7.8	ug/Kg	1.0	U	U	Yes	
1,1,1-Trichloroethane	7.8	ug/Kg	1.0	U	U	Yes	
Cyclohexane	7.8	ug/Kg	1.0	U	U	Yes	
Carbon tetrachloride	7.8	ug/Kg	1.0	U	U	Yes	
1,2-Dichloroethane	7.8	ug/Kg	1.0	U	U	Yes	
1,4-Dioxane	160	ug/Kg	1.0	U	R	Yes	
Methylcyclohexa ne	7.8	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
1,2-Dichloropropane	7.8	ug/Kg	1.0	U	U	Yes	
Bromodichloromethane	7.8	ug/Kg	1.0	U	U	Yes	
cis-1,3-Dichloropropene	7.8	ug/Kg	1.0	U	U	Yes	
4-Methyl-2-pentanone	16	ug/Kg	1.0	U	U	Yes	
trans-1,3-Dichloropropene	7.8	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloroethane	7.8	ug/Kg	1.0	U	U	Yes	
Tetrachloroethene	7.8	ug/Kg	1.0	U	U	Yes	
2-Hexanone	16	ug/Kg	1.0	U	U	Yes	
Dibromochloromethane	7.8	ug/Kg	1.0	U	U	Yes	
1,2-Dibromoethane	7.8	ug/Kg	1.0	U	U	Yes	
Ethylbenzene	7.8	ug/Kg	1.0	U	U	Yes	
o-Xylene	7.8	ug/Kg	1.0	U	U	Yes	
m,p-Xylene	7.8	ug/Kg	1.0	U	U	Yes	
Styrene	7.8	ug/Kg	1.0	U	U	Yes	
Bromoform	7.8	ug/Kg	1.0	U	U	Yes	
Isopropylbenzene	7.8	ug/Kg	1.0	U	U	Yes	
1,1,2,2-Tetrachloroethane	7.8	ug/Kg	1.0	U	U	Yes	
1,3-Dichlorobenzene	7.8	ug/Kg	1.0	U	U	Yes	
1,4-Dichlorobenzene	7.8	ug/Kg	1.0	U	U	Yes	
1,2-Dichlorobenzene	7.8	ug/Kg	1.0	U	U	Yes	
1,2-Dibromo-3-chloropropane	7.8	ug/Kg	1.0	U	U	Yes	
1,2,4-Trichlorobenzene	7.8	ug/Kg	1.0	U	U	Yes	
1,2,3-Trichlorobenzene	7.8	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AC6	Lab Code: MITKEM
Sample Number: E0AC6MSD	Method: VOA_Low_Med	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD03-(0-6)-072513	pH: 7.0	Sample Date: 07/25/2013	Sample Time: 10:00:00
% Moisture : 31.36966		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	7.0	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethene	45	ug/Kg	1.0			Yes	
Benzene	65	ug/Kg	1.0			Yes	
Chloromethane	7.0	ug/Kg	1.0	U	U	Yes	
Vinyl chloride	7.0	ug/Kg	1.0	U	U	Yes	
Trichloroethene	62	ug/Kg	1.0			Yes	
Toluene	64	ug/Kg	1.0			Yes	
Bromomethane	7.0	ug/Kg	1.0	U	U	Yes	
Chloroethane	7.0	ug/Kg	1.0	U	U	Yes	
Chlorobenzene	64	ug/Kg	1.0			Yes	
Trichlorofluorom ethane	7.0	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloro-1,2,2-trifluoroethane	7.0	ug/Kg	1.0	U	U	Yes	
Acetone	14	ug/Kg	1.0	U	U	Yes	
Carbon disulfide	7.0	ug/Kg	1.0	U	U	Yes	
Methyl acetate	7.0	ug/Kg	1.0	U	U	Yes	
Methylene chloride	7.0	ug/Kg	1.0	U	U	Yes	
trans-1,2-Dichloroethene	7.0	ug/Kg	1.0	U	U	Yes	
Methyl tert-butyl ether	7.0	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethane	7.0	ug/Kg	1.0	U	U	Yes	
cis-1,2-Dichloroethene	7.0	ug/Kg	1.0	U	U	Yes	
2-Butanone	14	ug/Kg	1.0	U	U	Yes	
Bromochloromet hane	7.0	ug/Kg	1.0	U	U	Yes	
Chloroform	7.0	ug/Kg	1.0	U	U	Yes	
1,1,1-Trichloroethane	7.0	ug/Kg	1.0	U	U	Yes	
Cyclohexane	7.0	ug/Kg	1.0	U	U	Yes	
Carbon tetrachloride	7.0	ug/Kg	1.0	U	U	Yes	
1,2-Dichloroethane	7.0	ug/Kg	1.0	U	U	Yes	
1,4-Dioxane	140	ug/Kg	1.0	U	R	Yes	
Methylcyclohexa ne	7.0	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
1,2-Dichloropropane	7.0	ug/Kg	1.0	U	U	Yes	
Bromodichloromethane	7.0	ug/Kg	1.0	U	U	Yes	
cis-1,3-Dichloropropene	7.0	ug/Kg	1.0	U	U	Yes	
4-Methyl-2-pentanone	14	ug/Kg	1.0	U	U	Yes	
trans-1,3-Dichloropropene	7.0	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloroethane	7.0	ug/Kg	1.0	U	U	Yes	
Tetrachloroethene	7.0	ug/Kg	1.0	U	U	Yes	
2-Hexanone	14	ug/Kg	1.0	U	U	Yes	
Dibromochloromethane	7.0	ug/Kg	1.0	U	U	Yes	
1,2-Dibromoethane	7.0	ug/Kg	1.0	U	U	Yes	
Ethylbenzene	7.0	ug/Kg	1.0	U	U	Yes	
o-Xylene	7.0	ug/Kg	1.0	U	U	Yes	
m,p-Xylene	7.0	ug/Kg	1.0	U	U	Yes	
Styrene	7.0	ug/Kg	1.0	U	U	Yes	
Bromoform	7.0	ug/Kg	1.0	U	U	Yes	
Isopropylbenzene	7.0	ug/Kg	1.0	U	U	Yes	
1,1,2,2-Tetrachloroethane	7.0	ug/Kg	1.0	U	U	Yes	
1,3-Dichlorobenzene	7.0	ug/Kg	1.0	U	U	Yes	
1,4-Dichlorobenzene	7.0	ug/Kg	1.0	U	U	Yes	
1,2-Dichlorobenzene	7.0	ug/Kg	1.0	U	U	Yes	
1,2-Dibromo-3-chloropropane	7.0	ug/Kg	1.0	U	U	Yes	
1,2,4-Trichlorobenzene	7.0	ug/Kg	1.0	U	U	Yes	
1,2,3-Trichlorobenzene	7.0	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AC6	Lab Code: MITKEM
Sample Number: E0AC6MSD	Method: BNA	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD03-(0-6)-072513	pH: 7.3	Sample Date: 07/25/2013	Sample Time: 10:00:00
% Moisture : 31.36966		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Phenol	1100	ug/Kg	1.0			Yes	
Benzaldehyde	240	ug/Kg	1.0	U	U	Yes	
2-Chlorophenol	1100	ug/Kg	1.0			Yes	
N-Nitroso-di-n-propylamine	920	ug/Kg	1.0			Yes	
Bis(2-chloroethyl)ether	240	ug/Kg	1.0	U	U	Yes	
4-Chloro-3-methylphenol	1200	ug/Kg	1.0			Yes	
Acenaphthene	1000	ug/Kg	1.0			Yes	
2-Methylphenol	240	ug/Kg	1.0	U	U	Yes	
2,2'-Oxybis(1-chloropropane)	240	ug/Kg	1.0	U	U	Yes	
4-Nitrophenol	1300	ug/Kg	1.0			Yes	
2,4-Dinitrotoluene	1000	ug/Kg	1.0			Yes	
Acetophenone	240	ug/Kg	1.0	U	U	Yes	
4-Methylphenol	240	ug/Kg	1.0	U	U	Yes	
Pentachlorophenol	1500	ug/Kg	1.0		J	Yes	
Pyrene	690	ug/Kg	1.0			Yes	
Hexachloroethane	240	ug/Kg	1.0	U	U	Yes	
Nitrobenzene	240	ug/Kg	1.0	U	U	Yes	
Isophorone	240	ug/Kg	1.0	U	U	Yes	
2-Nitrophenol	240	ug/Kg	1.0	U	U	Yes	
2,4-Dimethylphenol	240	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethoxy)methane	240	ug/Kg	1.0	U	U	Yes	
2,4-Dichlorophenol	240	ug/Kg	1.0	U	U	Yes	
Naphthalene	240	ug/Kg	1.0	U	U	Yes	
4-Chloroaniline	240	ug/Kg	1.0	U	U	Yes	
Hexachlorobutadiene	240	ug/Kg	1.0	U	U	Yes	
Caprolactam	240	ug/Kg	1.0	U	U	Yes	
2-Methylnaphthalene	240	ug/Kg	1.0	U	U	Yes	
Hexachlorocyclopentadiene	240	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
2,4,6-Trichlorophenol	240	ug/Kg	1.0	U	U	Yes	
2,4,5-Trichlorophenol	240	ug/Kg	1.0	U	U	Yes	
1,1'-Biphenyl	240	ug/Kg	1.0	U	U	Yes	
2-Chloronaphthalene	240	ug/Kg	1.0	U	U	Yes	
2-Nitroaniline	470	ug/Kg	1.0	U	U	Yes	
Dimethylphthalate	240	ug/Kg	1.0	U	U	Yes	
2,6-Dinitrotoluene	240	ug/Kg	1.0	U	U	Yes	
Acenaphthylene	240	ug/Kg	1.0	U	U	Yes	
3-Nitroaniline	470	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrophenol	470	ug/Kg	1.0	U	U	Yes	
Dibenzofuran	240	ug/Kg	1.0	U	U	Yes	
Diethylphthalate	240	ug/Kg	1.0	U	U	Yes	
Fluorene	240	ug/Kg	1.0	U	U	Yes	
4-Chlorophenyl-phenylether	240	ug/Kg	1.0	U	U	Yes	
4-Nitroaniline	470	ug/Kg	1.0	U	U	Yes	
4,6-Dinitro-2-methylphenol	470	ug/Kg	1.0	U	U	Yes	
N-Nitrosodiphenylamine	240	ug/Kg	1.0	U	U	Yes	
1,2,4,5-Tetrachlorobenzene	240	ug/Kg	1.0	U	U	Yes	
4-Bromophenyl-phenylether	240	ug/Kg	1.0	U	U	Yes	
Hexachlorobenzene	240	ug/Kg	1.0	U	U	Yes	
Atrazine	240	ug/Kg	1.0	U	U	Yes	
Phenanthrene	240	ug/Kg	1.0	U	U	Yes	
Anthracene	240	ug/Kg	1.0	U	U	Yes	
Carbazole	240	ug/Kg	1.0	U	U	Yes	
Di-n-butylphthalate	240	ug/Kg	1.0	U	U	Yes	
Fluoranthene	240	ug/Kg	1.0	U	U	Yes	
Butylbenzylphthalate	240	ug/Kg	1.0	U	U	Yes	
3,3'-Dichlorobenzidine	240	ug/Kg	1.0	U	U	Yes	
Benzo(a)anthracene	240	ug/Kg	1.0	U	U	Yes	
Chrysene	240	ug/Kg	1.0	U	U	Yes	
Bis(2-ethylhexyl)	240	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
phthalate	240	ug/Kg	1.0	U	U	Yes	
Di-n-octylphthalate	240	ug/Kg	1.0	U	U	Yes	
Benzo(b)fluoranthene	240	ug/Kg	1.0	U	U	Yes	
Benzo(k)fluoranthene	240	ug/Kg	1.0	U	U	Yes	
Benzo(a)pyrene	240	ug/Kg	1.0	U	U	Yes	
Indeno(1,2,3-cd)pyrene	240	ug/Kg	1.0	U	U	Yes	
Dibenzo(a,h)anthracene	240	ug/Kg	1.0	U	U	Yes	
Benzo(g,h,i)perylene	240	ug/Kg	1.0	U	U	Yes	
2,3,4,6-Tetrachlorophenol	240	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AC6	Lab Code: MITKEM
Sample Number: E0AC7	Method: VOA_Low_Med	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD03-(6-12)-072513	pH: 7.0	Sample Date: 07/25/2013	Sample Time: 10:05:00
% Moisture : 25.03726		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	7.4	ug/Kg	1.0	U	U	Yes	
Chloromethane	7.4	ug/Kg	1.0	U	U	Yes	
Vinyl chloride	7.4	ug/Kg	1.0	U	U	Yes	
Bromomethane	7.4	ug/Kg	1.0	U	U	Yes	
Chloroethane	7.4	ug/Kg	1.0	U	U	Yes	
Trichlorofluorom ethane	7.4	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethene	7.4	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloro-1,2,2-trifluoroethane	7.4	ug/Kg	1.0	U	U	Yes	
Acetone	15	ug/Kg	1.0	U	U	Yes	
Carbon disulfide	7.4	ug/Kg	1.0	U	U	Yes	
Methyl acetate	7.4	ug/Kg	1.0	U	U	Yes	
Methylene chloride	7.4	ug/Kg	1.0	U	U	Yes	
trans-1,2-Dichloroethene	7.4	ug/Kg	1.0	U	U	Yes	
Methyl tert-butyl ether	7.4	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethane	7.4	ug/Kg	1.0	U	U	Yes	
cis-1,2-Dichloroethene	7.4	ug/Kg	1.0	U	U	Yes	
2-Butanone	15	ug/Kg	1.0	U	U	Yes	
Bromochloromet hane	7.4	ug/Kg	1.0	U	U	Yes	
Chloroform	7.4	ug/Kg	1.0	U	U	Yes	
1,1,1-Trichloroethane	7.4	ug/Kg	1.0	U	U	Yes	
Cyclohexane	7.4	ug/Kg	1.0	U	U	Yes	
Carbon tetrachloride	7.4	ug/Kg	1.0	U	U	Yes	
Benzene	7.4	ug/Kg	1.0	U	U	Yes	
1,2-Dichloroethane	7.4	ug/Kg	1.0	U	U	Yes	
1,4-Dioxane	150	ug/Kg	1.0	U	R	Yes	
Trichloroethene	7.4	ug/Kg	1.0	U	U	Yes	
Methylcyclohexa ne	7.4	ug/Kg	1.0	U	U	Yes	
1,2-Dichloropropane	7.4	ug/Kg	1.0	U	U	Yes	
Bromodichlorom	7.4	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
ethane	7.4	ug/Kg	1.0	U	U	Yes	
cis-1,3-Dichloropropene	7.4	ug/Kg	1.0	U	U	Yes	
4-Methyl-2-pentanone	15	ug/Kg	1.0	U	U	Yes	
Toluene	7.4	ug/Kg	1.0	U	U	Yes	
trans-1,3-Dichloropropene	7.4	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloroethane	7.4	ug/Kg	1.0	U	U	Yes	
Tetrachloroethene	7.4	ug/Kg	1.0	U	U	Yes	
2-Hexanone	15	ug/Kg	1.0	U	U	Yes	
Dibromochloromethane	7.4	ug/Kg	1.0	U	U	Yes	
1,2-Dibromoethane	7.4	ug/Kg	1.0	U	U	Yes	
Chlorobenzene	7.4	ug/Kg	1.0	U	U	Yes	
Ethylbenzene	7.4	ug/Kg	1.0	U	U	Yes	
o-Xylene	7.4	ug/Kg	1.0	U	U	Yes	
m,p-Xylene	7.4	ug/Kg	1.0	U	U	Yes	
Styrene	7.4	ug/Kg	1.0	U	U	Yes	
Bromoform	7.4	ug/Kg	1.0	U	U	Yes	
Isopropylbenzene	7.4	ug/Kg	1.0	U	U	Yes	
1,1,2,2-Tetrachloroethane	7.4	ug/Kg	1.0	U	U	Yes	
1,3-Dichlorobenzene	7.4	ug/Kg	1.0	U	U	Yes	
1,4-Dichlorobenzene	7.4	ug/Kg	1.0	U	U	Yes	
1,2-Dichlorobenzene	7.4	ug/Kg	1.0	U	U	Yes	
1,2-Dibromo-3-chloropropane	7.4	ug/Kg	1.0	U	U	Yes	
1,2,4-Trichlorobenzene	7.4	ug/Kg	1.0	U	U	Yes	
1,2,3-Trichlorobenzene	7.4	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AC6	Lab Code: MITKEM
Sample Number: E0AC7	Method: BNA	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD03-(6-12)-072513	pH: 7.5	Sample Date: 07/25/2013	Sample Time: 10:05:00
% Moisture : 25.03726		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Benzaldehyde	220	ug/Kg	1.0	U	U	Yes	
Phenol	220	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethyl)ether	220	ug/Kg	1.0	U	U	Yes	
2-Chlorophenol	220	ug/Kg	1.0	U	U	Yes	
2-Methylphenol	220	ug/Kg	1.0	U	U	Yes	
2,2'-Oxybis(1-chloropropane)	220	ug/Kg	1.0	U	U	Yes	
Acetophenone	220	ug/Kg	1.0	U	U	Yes	
4-Methylphenol	220	ug/Kg	1.0	U	U	Yes	
N-Nitroso-di-n-propylamine	220	ug/Kg	1.0	U	U	Yes	
Hexachloroethane	220	ug/Kg	1.0	U	U	Yes	
Nitrobenzene	220	ug/Kg	1.0	U	U	Yes	
Isophorone	220	ug/Kg	1.0	U	U	Yes	
2-Nitrophenol	220	ug/Kg	1.0	U	U	Yes	
2,4-Dimethylphenol	220	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethoxy)methane	220	ug/Kg	1.0	U	U	Yes	
2,4-Dichlorophenol	220	ug/Kg	1.0	U	U	Yes	
Naphthalene	220	ug/Kg	1.0	U	U	Yes	
4-Chloroaniline	220	ug/Kg	1.0	U	U	Yes	
Hexachlorobutadiene	220	ug/Kg	1.0	U	U	Yes	
Caprolactam	220	ug/Kg	1.0	U	U	Yes	
4-Chloro-3-methylphenol	220	ug/Kg	1.0	U	U	Yes	
2-Methylnaphthalene	220	ug/Kg	1.0	U	U	Yes	
Hexachlorocyclopentadiene	220	ug/Kg	1.0	U	U	Yes	
2,4,6-Trichlorophenol	220	ug/Kg	1.0	U	U	Yes	
2,4,5-Trichlorophenol	220	ug/Kg	1.0	U	U	Yes	
1,1'-Biphenyl	220	ug/Kg	1.0	U	U	Yes	
2-Chloronaphthalene	220	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
2-Nitroaniline	440	ug/Kg	1.0	U	U	Yes	
Dimethylphthalate	220	ug/Kg	1.0	U	U	Yes	
2,6-Dinitrotoluene	220	ug/Kg	1.0	U	U	Yes	
Acenaphthylene	220	ug/Kg	1.0	U	U	Yes	
3-Nitroaniline	440	ug/Kg	1.0	U	U	Yes	
Acenaphthene	220	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrophenol	440	ug/Kg	1.0	U	U	Yes	
4-Nitrophenol	440	ug/Kg	1.0	U	U	Yes	
Dibenzofuran	220	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrotoluene	220	ug/Kg	1.0	U	U	Yes	
Diethylphthalate	220	ug/Kg	1.0	U	U	Yes	
Fluorene	220	ug/Kg	1.0	U	U	Yes	
4-Chlorophenyl-phenylether	220	ug/Kg	1.0	U	U	Yes	
4-Nitroaniline	440	ug/Kg	1.0	U	U	Yes	
4,6-Dinitro-2-methylphenol	440	ug/Kg	1.0	U	U	Yes	
N-Nitrosodiphenylamine	220	ug/Kg	1.0	U	U	Yes	
1,2,4,5-Tetrachlorobenzene	220	ug/Kg	1.0	U	U	Yes	
4-Bromophenyl-phenylether	220	ug/Kg	1.0	U	U	Yes	
Hexachlorobenzene	220	ug/Kg	1.0	U	U	Yes	
Atrazine	220	ug/Kg	1.0	U	U	Yes	
Pentachlorophenol	440	ug/Kg	1.0	U	U	Yes	
Phenanthrene	220	ug/Kg	1.0	U	U	Yes	
Anthracene	220	ug/Kg	1.0	U	U	Yes	
Carbazole	220	ug/Kg	1.0	U	U	Yes	
Di-n-butylphthalate	220	ug/Kg	1.0	U	U	Yes	
Fluoranthene	220	ug/Kg	1.0	U	U	Yes	
Pyrene	220	ug/Kg	1.0	U	U	Yes	
Butylbenzylphthalate	220	ug/Kg	1.0	U	U	Yes	
3,3'-Dichlorobenzidine	220	ug/Kg	1.0	U	U	Yes	
Benzo(a)anthracene	220	ug/Kg	1.0	U	U	Yes	
Chrysene	220	ug/Kg	1.0	U	U	Yes	
Bis(2-ethylhexyl)	220	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
phthalate	220	ug/Kg	1.0	U	U	Yes	
Di-n-octylphthalate	220	ug/Kg	1.0	U	U	Yes	
Benzo(b)fluoranthene	220	ug/Kg	1.0	U	U	Yes	
Benzo(k)fluoranthene	220	ug/Kg	1.0	U	U	Yes	
Benzo(a)pyrene	220	ug/Kg	1.0	U	U	Yes	
Indeno(1,2,3-cd)pyrene	220	ug/Kg	1.0	U	U	Yes	
Dibenzo(a,h)anthracene	220	ug/Kg	1.0	U	U	Yes	
Benzo(g,h,i)perylene	220	ug/Kg	1.0	U	U	Yes	
2,3,4,6-Tetrachlorophenol	220	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AC6	Lab Code: MITKEM
Sample Number: E0AC8	Method: VOA_Low_Med	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SO15-(0-12)-072513	pH: 7.0	Sample Date: 07/25/2013	Sample Time: 11:05:00
% Moisture : 5.20325		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	5.9	ug/Kg	1.0	U	U	Yes	
Chloromethane	5.9	ug/Kg	1.0	U	U	Yes	
Vinyl chloride	5.9	ug/Kg	1.0	U	U	Yes	
Bromomethane	5.9	ug/Kg	1.0	U	U	Yes	
Chloroethane	5.9	ug/Kg	1.0	U	U	Yes	
Trichlorofluorom ethane	5.9	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethene	5.9	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.9	ug/Kg	1.0	U	U	Yes	
Acetone	12	ug/Kg	1.0	U	U	Yes	
Carbon disulfide	5.9	ug/Kg	1.0	U	U	Yes	
Methyl acetate	5.9	ug/Kg	1.0	U	U	Yes	
Methylene chloride	5.9	ug/Kg	1.0	U	U	Yes	
trans-1,2-Dichloroethene	5.9	ug/Kg	1.0	U	U	Yes	
Methyl tert-butyl ether	5.9	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethane	5.9	ug/Kg	1.0	U	U	Yes	
cis-1,2-Dichloroethene	5.9	ug/Kg	1.0	U	U	Yes	
2-Butanone	12	ug/Kg	1.0	U	U	Yes	
Bromochloromet hane	5.9	ug/Kg	1.0	U	U	Yes	
Chloroform	5.9	ug/Kg	1.0	U	U	Yes	
1,1,1-Trichloroethane	5.9	ug/Kg	1.0	U	U	Yes	
Cyclohexane	5.9	ug/Kg	1.0	U	U	Yes	
Carbon tetrachloride	5.9	ug/Kg	1.0	U	U	Yes	
Benzene	5.9	ug/Kg	1.0	U	U	Yes	
1,2-Dichloroethane	5.9	ug/Kg	1.0	U	U	Yes	
1,4-Dioxane	120	ug/Kg	1.0	U	R	Yes	
Trichloroethene	5.9	ug/Kg	1.0	U	U	Yes	
Methylcyclohexa ne	5.9	ug/Kg	1.0	U	U	Yes	
1,2-Dichloropropane	5.9	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Bromodichloromethane	5.9	ug/Kg	1.0	U	U	Yes	
cis-1,3-Dichloropropene	5.9	ug/Kg	1.0	U	U	Yes	
4-Methyl-2-pentanone	12	ug/Kg	1.0	U	U	Yes	
Toluene	5.9	ug/Kg	1.0	U	U	Yes	
trans-1,3-Dichloropropene	5.9	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloroethane	5.9	ug/Kg	1.0	U	U	Yes	
Tetrachloroethene	5.9	ug/Kg	1.0	U	U	Yes	
2-Hexanone	12	ug/Kg	1.0	U	U	Yes	
Dibromochloromethane	5.9	ug/Kg	1.0	U	U	Yes	
1,2-Dibromoethane	5.9	ug/Kg	1.0	U	U	Yes	
Chlorobenzene	5.9	ug/Kg	1.0	U	U	Yes	
Ethylbenzene	5.9	ug/Kg	1.0	U	U	Yes	
o-Xylene	5.9	ug/Kg	1.0	U	U	Yes	
m,p-Xylene	5.9	ug/Kg	1.0	U	U	Yes	
Styrene	5.9	ug/Kg	1.0	U	U	Yes	
Bromoform	5.9	ug/Kg	1.0	U	U	Yes	
Isopropylbenzene	5.9	ug/Kg	1.0	U	U	Yes	
1,1,2,2-Tetrachloroethane	5.9	ug/Kg	1.0	U	U	Yes	
1,3-Dichlorobenzene	5.9	ug/Kg	1.0	U	U	Yes	
1,4-Dichlorobenzene	5.9	ug/Kg	1.0	U	U	Yes	
1,2-Dichlorobenzene	5.9	ug/Kg	1.0	U	U	Yes	
1,2-Dibromo-3-chloropropane	5.9	ug/Kg	1.0	U	U	Yes	
1,2,4-Trichlorobenzene	5.9	ug/Kg	1.0	U	U	Yes	
1,2,3-Trichlorobenzene	5.9	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AC6	Lab Code: MITKEM
Sample Number: E0AC8	Method: BNA	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SO15-(0-12)-072513	pH: 5.3	Sample Date: 07/25/2013	Sample Time: 11:05:00
% Moisture : 5.20325		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Benzaldehyde	180	ug/Kg	1.0	U	U	Yes	
Phenol	180	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethyl)ether	180	ug/Kg	1.0	U	U	Yes	
2-Chlorophenol	180	ug/Kg	1.0	U	U	Yes	
2-Methylphenol	180	ug/Kg	1.0	U	U	Yes	
2,2'-Oxybis(1-chloropropane)	180	ug/Kg	1.0	U	U	Yes	
Acetophenone	180	ug/Kg	1.0	U	U	Yes	
4-Methylphenol	180	ug/Kg	1.0	U	U	Yes	
N-Nitroso-di-n-propylamine	180	ug/Kg	1.0	U	U	Yes	
Hexachloroethane	180	ug/Kg	1.0	U	U	Yes	
Nitrobenzene	180	ug/Kg	1.0	U	U	Yes	
Isophorone	180	ug/Kg	1.0	U	U	Yes	
2-Nitrophenol	180	ug/Kg	1.0	U	U	Yes	
2,4-Dimethylphenol	180	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethoxy)methane	180	ug/Kg	1.0	U	U	Yes	
2,4-Dichlorophenol	180	ug/Kg	1.0	U	U	Yes	
Naphthalene	180	ug/Kg	1.0	U	U	Yes	
4-Chloroaniline	180	ug/Kg	1.0	U	U	Yes	
Hexachlorobutadiene	180	ug/Kg	1.0	U	U	Yes	
Caprolactam	180	ug/Kg	1.0	U	U	Yes	
4-Chloro-3-methylphenol	180	ug/Kg	1.0	U	U	Yes	
2-Methylnaphthalene	180	ug/Kg	1.0	U	U	Yes	
Hexachlorocyclopentadiene	180	ug/Kg	1.0	U	U	Yes	
2,4,6-Trichlorophenol	180	ug/Kg	1.0	U	U	Yes	
2,4,5-Trichlorophenol	180	ug/Kg	1.0	U	U	Yes	
1,1'-Biphenyl	180	ug/Kg	1.0	U	U	Yes	
2-Chloronaphthalene	180	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
2-Nitroaniline	340	ug/Kg	1.0	U	U	Yes	
Dimethylphthalate	180	ug/Kg	1.0	U	U	Yes	
2,6-Dinitrotoluene	180	ug/Kg	1.0	U	U	Yes	
Acenaphthylene	180	ug/Kg	1.0	U	U	Yes	
3-Nitroaniline	340	ug/Kg	1.0	U	U	Yes	
Acenaphthene	180	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrophenol	340	ug/Kg	1.0	U	U	Yes	
4-Nitrophenol	340	ug/Kg	1.0	U	U	Yes	
Dibenzofuran	180	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrotoluene	180	ug/Kg	1.0	U	U	Yes	
Diethylphthalate	180	ug/Kg	1.0	U	U	Yes	
Fluorene	180	ug/Kg	1.0	U	U	Yes	
4-Chlorophenyl-phenylether	180	ug/Kg	1.0	U	U	Yes	
4-Nitroaniline	340	ug/Kg	1.0	U	U	Yes	
4,6-Dinitro-2-methylphenol	340	ug/Kg	1.0	U	U	Yes	
N-Nitrosodiphenylamine	180	ug/Kg	1.0	U	U	Yes	
1,2,4,5-Tetrachlorobenzene	180	ug/Kg	1.0	U	U	Yes	
4-Bromophenyl-phenylether	180	ug/Kg	1.0	U	U	Yes	
Hexachlorobenzene	180	ug/Kg	1.0	U	U	Yes	
Atrazine	180	ug/Kg	1.0	U	U	Yes	
Pentachlorophenol	340	ug/Kg	1.0	U	U	Yes	
Phenanthrene	180	ug/Kg	1.0	U	U	Yes	
Anthracene	180	ug/Kg	1.0	U	U	Yes	
Carbazole	180	ug/Kg	1.0	U	U	Yes	
Di-n-butylphthalate	180	ug/Kg	1.0	U	U	Yes	
Fluoranthene	180	ug/Kg	1.0	U	U	Yes	
Pyrene	180	ug/Kg	1.0	U	U	Yes	
Butylbenzylphthalate	180	ug/Kg	1.0	U	U	Yes	
3,3'-Dichlorobenzidine	180	ug/Kg	1.0	U	U	Yes	
Benzo(a)anthracene	180	ug/Kg	1.0	U	U	Yes	
Chrysene	180	ug/Kg	1.0	U	U	Yes	
Bis(2-ethylhexyl)	180	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
phthalate	180	ug/Kg	1.0	U	U	Yes	
Di-n-octylphthalate	180	ug/Kg	1.0	U	U	Yes	
Benzo(b)fluoranthene	180	ug/Kg	1.0	U	U	Yes	
Benzo(k)fluoranthene	180	ug/Kg	1.0	U	U	Yes	
Benzo(a)pyrene	180	ug/Kg	1.0	U	U	Yes	
Indeno(1,2,3-cd)pyrene	180	ug/Kg	1.0	U	U	Yes	
Dibenzo(a,h)anthracene	180	ug/Kg	1.0	U	U	Yes	
Benzo(g,h,i)perylene	180	ug/Kg	1.0	U	U	Yes	
2,3,4,6-Tetrachlorophenol	180	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AC6	Lab Code: MITKEM
Sample Number: E0AC9	Method: BNA	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD02-(0-6)-072513	pH: 7.1	Sample Date: 07/25/2013	Sample Time: 12:15:00
% Moisture : 26.28798		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Benzaldehyde	230	ug/Kg	1.0	U	U	Yes	
Phenol	230	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethyl)ether	230	ug/Kg	1.0	U	U	Yes	
2-Chlorophenol	230	ug/Kg	1.0	U	U	Yes	
2-Methylphenol	230	ug/Kg	1.0	U	U	Yes	
2,2'-Oxybis(1-chloropropane)	230	ug/Kg	1.0	U	U	Yes	
Acetophenone	230	ug/Kg	1.0	U	U	Yes	
4-Methylphenol	230	ug/Kg	1.0	U	U	Yes	
N-Nitroso-di-n-propylamine	230	ug/Kg	1.0	U	U	Yes	
Hexachloroethane	230	ug/Kg	1.0	U	U	Yes	
Nitrobenzene	230	ug/Kg	1.0	U	U	Yes	
Isophorone	230	ug/Kg	1.0	U	U	Yes	
2-Nitrophenol	230	ug/Kg	1.0	U	U	Yes	
2,4-Dimethylphenol	230	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethoxy)methane	230	ug/Kg	1.0	U	U	Yes	
2,4-Dichlorophenol	230	ug/Kg	1.0	U	U	Yes	
Naphthalene	230	ug/Kg	1.0	U	U	Yes	
4-Chloroaniline	230	ug/Kg	1.0	U	U	Yes	
Hexachlorobutadiene	230	ug/Kg	1.0	U	U	Yes	
Caprolactam	230	ug/Kg	1.0	U	U	Yes	
4-Chloro-3-methylphenol	230	ug/Kg	1.0	U	U	Yes	
2-Methylnaphthalene	230	ug/Kg	1.0	U	U	Yes	
Hexachlorocyclopentadiene	230	ug/Kg	1.0	U	U	Yes	
2,4,6-Trichlorophenol	230	ug/Kg	1.0	U	U	Yes	
2,4,5-Trichlorophenol	230	ug/Kg	1.0	U	U	Yes	
1,1'-Biphenyl	230	ug/Kg	1.0	U	U	Yes	
2-Chloronaphthalene	230	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
2-Nitroaniline	440	ug/Kg	1.0	U	U	Yes	
Dimethylphthalate	230	ug/Kg	1.0	U	U	Yes	
2,6-Dinitrotoluene	230	ug/Kg	1.0	U	U	Yes	
Acenaphthylene	230	ug/Kg	1.0	U	U	Yes	
3-Nitroaniline	440	ug/Kg	1.0	U	U	Yes	
Acenaphthene	230	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrophenol	440	ug/Kg	1.0	U	U	Yes	
4-Nitrophenol	440	ug/Kg	1.0	U	U	Yes	
Dibenzofuran	230	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrotoluene	230	ug/Kg	1.0	U	U	Yes	
Diethylphthalate	230	ug/Kg	1.0	U	U	Yes	
Fluorene	230	ug/Kg	1.0	U	U	Yes	
4-Chlorophenyl-phenylether	230	ug/Kg	1.0	U	U	Yes	
4-Nitroaniline	440	ug/Kg	1.0	U	U	Yes	
4,6-Dinitro-2-methylphenol	440	ug/Kg	1.0	U	U	Yes	
N-Nitrosodiphenylamine	230	ug/Kg	1.0	U	U	Yes	
1,2,4,5-Tetrachlorobenzene	230	ug/Kg	1.0	U	U	Yes	
4-Bromophenyl-phenylether	230	ug/Kg	1.0	U	U	Yes	
Hexachlorobenzene	230	ug/Kg	1.0	U	U	Yes	
Atrazine	230	ug/Kg	1.0	U	U	Yes	
Pentachlorophenol	440	ug/Kg	1.0	U	U	Yes	
Phenanthrene	59	ug/Kg	1.0	J	J	Yes	
Anthracene	230	ug/Kg	1.0	U	U	Yes	
Carbazole	230	ug/Kg	1.0	U	U	Yes	
Di-n-butylphthalate	55	ug/Kg	1.0	J	J	Yes	
Fluoranthene	200	ug/Kg	1.0	J	J	Yes	
Pyrene	160	ug/Kg	1.0	J	J	Yes	
Butylbenzylphthalate	230	ug/Kg	1.0	U	U	Yes	
3,3'-Dichlorobenzidine	230	ug/Kg	1.0	U	U	Yes	
Benzo(a)anthracene	92	ug/Kg	1.0	J	J	Yes	
Chrysene	100	ug/Kg	1.0	J	J	Yes	
Bis(2-ethylhexyl)	230	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
phthalate	230	ug/Kg	1.0	U	U	Yes	
Di-n-octylphthalate	230	ug/Kg	1.0	U	U	Yes	
Benzo(b)fluorant hene	100	ug/Kg	1.0	J	J	Yes	
Benzo(k)fluorant hene	67	ug/Kg	1.0	J	J	Yes	
Benzo(a)pyrene	95	ug/Kg	1.0	J	J	Yes	
Indeno(1,2,3-cd)pyrene	59	ug/Kg	1.0	J	J	Yes	
Dibenzo(a,h)anth racene	230	ug/Kg	1.0	U	U	Yes	
Benzo(g,h,i)pery lene	60	ug/Kg	1.0	J	J	Yes	
2,3,4,6-Tetrachlorophen ol	230	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AC6	Lab Code: MITKEM
Sample Number: E0AC9	Method: VOA_Low_Med	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD02-(0-6)-072513	pH: 7.0	Sample Date: 07/25/2013	Sample Time: 12:15:00
% Moisture : 26.28798		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	8.3	ug/Kg	1.0	U	U	Yes	
Chloromethane	8.3	ug/Kg	1.0	U	U	Yes	
Vinyl chloride	8.3	ug/Kg	1.0	U	U	Yes	
Bromomethane	8.3	ug/Kg	1.0	U	U	Yes	
Chloroethane	8.3	ug/Kg	1.0	U	U	Yes	
Trichlorofluorom ethane	8.3	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethene	8.3	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloro-1,2,2-trifluoroethane	8.3	ug/Kg	1.0	U	U	Yes	
Acetone	17	ug/Kg	1.0	U	U	Yes	
Carbon disulfide	8.3	ug/Kg	1.0	U	U	Yes	
Methyl acetate	8.3	ug/Kg	1.0	U	U	Yes	
Methylene chloride	8.3	ug/Kg	1.0	U	U	Yes	
trans-1,2-Dichloroethene	8.3	ug/Kg	1.0	U	U	Yes	
Methyl tert-butyl ether	8.3	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethane	8.3	ug/Kg	1.0	U	U	Yes	
cis-1,2-Dichloroethene	8.3	ug/Kg	1.0	U	U	Yes	
2-Butanone	17	ug/Kg	1.0	U	U	Yes	
Bromochloromet hane	8.3	ug/Kg	1.0	U	U	Yes	
Chloroform	8.3	ug/Kg	1.0	U	U	Yes	
1,1,1-Trichloroethane	8.3	ug/Kg	1.0	U	U	Yes	
Cyclohexane	8.3	ug/Kg	1.0	U	U	Yes	
Carbon tetrachloride	8.3	ug/Kg	1.0	U	U	Yes	
Benzene	8.3	ug/Kg	1.0	U	U	Yes	
1,2-Dichloroethane	8.3	ug/Kg	1.0	U	U	Yes	
1,4-Dioxane	170	ug/Kg	1.0	U	R	Yes	
Trichloroethene	8.3	ug/Kg	1.0	U	U	Yes	
Methylcyclohexa ne	8.3	ug/Kg	1.0	U	U	Yes	
1,2-Dichloropropane	8.3	ug/Kg	1.0	U	U	Yes	
Bromodichlorom	8.3	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
ethane	8.3	ug/Kg	1.0	U	U	Yes	
cis-1,3-Dichloropropene	8.3	ug/Kg	1.0	U	U	Yes	
4-Methyl-2-pentanone	17	ug/Kg	1.0	U	U	Yes	
Toluene	8.3	ug/Kg	1.0	U	U	Yes	
trans-1,3-Dichloropropene	8.3	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloroethane	8.3	ug/Kg	1.0	U	U	Yes	
Tetrachloroethene	8.3	ug/Kg	1.0	U	U	Yes	
2-Hexanone	17	ug/Kg	1.0	U	U	Yes	
Dibromochloromethane	8.3	ug/Kg	1.0	U	U	Yes	
1,2-Dibromoethane	8.3	ug/Kg	1.0	U	U	Yes	
Chlorobenzene	8.3	ug/Kg	1.0	U	U	Yes	
Ethylbenzene	8.3	ug/Kg	1.0	U	U	Yes	
o-Xylene	8.3	ug/Kg	1.0	U	U	Yes	
m,p-Xylene	8.3	ug/Kg	1.0	U	U	Yes	
Styrene	8.3	ug/Kg	1.0	U	U	Yes	
Bromoform	8.3	ug/Kg	1.0	U	U	Yes	
Isopropylbenzene	8.3	ug/Kg	1.0	U	U	Yes	
1,1,2,2-Tetrachloroethane	8.3	ug/Kg	1.0	U	U	Yes	
1,3-Dichlorobenzene	8.3	ug/Kg	1.0	U	U	Yes	
1,4-Dichlorobenzene	8.3	ug/Kg	1.0	U	U	Yes	
1,2-Dichlorobenzene	8.3	ug/Kg	1.0	U	U	Yes	
1,2-Dibromo-3-chloropropane	8.3	ug/Kg	1.0	U	U	Yes	
1,2,4-Trichlorobenzene	8.3	ug/Kg	1.0	U	U	Yes	
1,2,3-Trichlorobenzene	8.3	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AC6	Lab Code: MITKEM
Sample Number: E0AD0	Method: VOA_Low_Med	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD02-(6-12)-072513	pH: 7.0	Sample Date: 07/25/2013	Sample Time: 12:20:00
% Moisture : 18.45638		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	7.3	ug/Kg	1.0	U	U	Yes	
Chloromethane	7.3	ug/Kg	1.0	U	U	Yes	
Vinyl chloride	7.3	ug/Kg	1.0	U	U	Yes	
Bromomethane	7.3	ug/Kg	1.0	U	U	Yes	
Chloroethane	7.3	ug/Kg	1.0	U	U	Yes	
Trichlorofluorom ethane	7.3	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethene	7.3	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloro-1,2,2-trifluoroethane	7.3	ug/Kg	1.0	U	U	Yes	
Acetone	6.7	ug/Kg	1.0	J	J	Yes	
Carbon disulfide	7.3	ug/Kg	1.0	U	U	Yes	
Methyl acetate	7.3	ug/Kg	1.0	U	U	Yes	
Methylene chloride	7.3	ug/Kg	1.0	U	U	Yes	
trans-1,2-Dichloroethene	7.3	ug/Kg	1.0	U	U	Yes	
Methyl tert-butyl ether	7.3	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethane	7.3	ug/Kg	1.0	U	U	Yes	
cis-1,2-Dichloroethene	7.3	ug/Kg	1.0	U	U	Yes	
2-Butanone	15	ug/Kg	1.0	U	U	Yes	
Bromochloromet hane	7.3	ug/Kg	1.0	U	U	Yes	
Chloroform	7.3	ug/Kg	1.0	U	U	Yes	
1,1,1-Trichloroethane	7.3	ug/Kg	1.0	U	U	Yes	
Cyclohexane	7.3	ug/Kg	1.0	U	U	Yes	
Carbon tetrachloride	7.3	ug/Kg	1.0	U	U	Yes	
Benzene	7.3	ug/Kg	1.0	U	U	Yes	
1,2-Dichloroethane	7.3	ug/Kg	1.0	U	U	Yes	
1,4-Dioxane	150	ug/Kg	1.0	U	R	Yes	
Trichloroethene	7.3	ug/Kg	1.0	U	U	Yes	
Methylcyclohexa ne	7.3	ug/Kg	1.0	U	U	Yes	
1,2-Dichloropropane	7.3	ug/Kg	1.0	U	U	Yes	
Bromodichlorom	7.3	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
ethane	7.3	ug/Kg	1.0	U	U	Yes	
cis-1,3-Dichloropropene	7.3	ug/Kg	1.0	U	UJ	Yes	
4-Methyl-2-pentanone	15	ug/Kg	1.0	U	U	Yes	
Toluene	7.3	ug/Kg	1.0	U	U	Yes	
trans-1,3-Dichloropropene	7.3	ug/Kg	1.0	U	UJ	Yes	
1,1,2-Trichloroethane	7.3	ug/Kg	1.0	U	UJ	Yes	
Tetrachloroethene	7.3	ug/Kg	1.0	U	U	Yes	
2-Hexanone	15	ug/Kg	1.0	U	U	Yes	
Dibromochloromethane	7.3	ug/Kg	1.0	U	U	Yes	
1,2-Dibromoethane	7.3	ug/Kg	1.0	U	U	Yes	
Chlorobenzene	7.3	ug/Kg	1.0	U	U	Yes	
Ethylbenzene	7.3	ug/Kg	1.0	U	U	Yes	
o-Xylene	7.3	ug/Kg	1.0	U	U	Yes	
m,p-Xylene	7.3	ug/Kg	1.0	U	U	Yes	
Styrene	7.3	ug/Kg	1.0	U	U	Yes	
Bromoform	7.3	ug/Kg	1.0	U	U	Yes	
Isopropylbenzene	7.3	ug/Kg	1.0	U	U	Yes	
1,1,2,2-Tetrachloroethane	7.3	ug/Kg	1.0	U	U	Yes	
1,3-Dichlorobenzene	7.3	ug/Kg	1.0	U	U	Yes	
1,4-Dichlorobenzene	7.3	ug/Kg	1.0	U	U	Yes	
1,2-Dichlorobenzene	7.3	ug/Kg	1.0	U	U	Yes	
1,2-Dibromo-3-chloropropane	7.3	ug/Kg	1.0	U	U	Yes	
1,2,4-Trichlorobenzene	7.3	ug/Kg	1.0	U	U	Yes	
1,2,3-Trichlorobenzene	7.3	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AC6	Lab Code: MITKEM
Sample Number: E0AD0	Method: BNA	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD02-(6-12)-072513	pH: 7.1	Sample Date: 07/25/2013	Sample Time: 12:20:00
% Moisture : 18.45638		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Benzaldehyde	210	ug/Kg	1.0	U	U	Yes	
Phenol	210	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethyl)ether	210	ug/Kg	1.0	U	U	Yes	
2-Chlorophenol	210	ug/Kg	1.0	U	U	Yes	
2-Methylphenol	210	ug/Kg	1.0	U	U	Yes	
2,2'-Oxybis(1-chloropropane)	210	ug/Kg	1.0	U	U	Yes	
Acetophenone	210	ug/Kg	1.0	U	U	Yes	
4-Methylphenol	210	ug/Kg	1.0	U	U	Yes	
N-Nitroso-di-n-propylamine	210	ug/Kg	1.0	U	U	Yes	
Hexachloroethane	210	ug/Kg	1.0	U	U	Yes	
Nitrobenzene	210	ug/Kg	1.0	U	U	Yes	
Isophorone	210	ug/Kg	1.0	U	U	Yes	
2-Nitrophenol	210	ug/Kg	1.0	U	U	Yes	
2,4-Dimethylphenol	210	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethoxy)methane	210	ug/Kg	1.0	U	U	Yes	
2,4-Dichlorophenol	210	ug/Kg	1.0	U	U	Yes	
Naphthalene	210	ug/Kg	1.0	U	U	Yes	
4-Chloroaniline	210	ug/Kg	1.0	U	U	Yes	
Hexachlorobutadiene	210	ug/Kg	1.0	U	U	Yes	
Caprolactam	210	ug/Kg	1.0	U	U	Yes	
4-Chloro-3-methylphenol	210	ug/Kg	1.0	U	U	Yes	
2-Methylnaphthalene	210	ug/Kg	1.0	U	U	Yes	
Hexachlorocyclopentadiene	210	ug/Kg	1.0	U	U	Yes	
2,4,6-Trichlorophenol	210	ug/Kg	1.0	U	U	Yes	
2,4,5-Trichlorophenol	210	ug/Kg	1.0	U	U	Yes	
1,1'-Biphenyl	210	ug/Kg	1.0	U	U	Yes	
2-Chloronaphthalene	210	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
2-Nitroaniline	400	ug/Kg	1.0	U	U	Yes	
Dimethylphthalate	210	ug/Kg	1.0	U	U	Yes	
2,6-Dinitrotoluene	210	ug/Kg	1.0	U	U	Yes	
Acenaphthylene	210	ug/Kg	1.0	U	U	Yes	
3-Nitroaniline	400	ug/Kg	1.0	U	U	Yes	
Acenaphthene	210	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrophenol	400	ug/Kg	1.0	U	U	Yes	
4-Nitrophenol	400	ug/Kg	1.0	U	U	Yes	
Dibenzofuran	210	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrotoluene	210	ug/Kg	1.0	U	U	Yes	
Diethylphthalate	210	ug/Kg	1.0	U	U	Yes	
Fluorene	210	ug/Kg	1.0	U	U	Yes	
4-Chlorophenyl-phenylether	210	ug/Kg	1.0	U	U	Yes	
4-Nitroaniline	400	ug/Kg	1.0	U	U	Yes	
4,6-Dinitro-2-methylphenol	400	ug/Kg	1.0	U	U	Yes	
N-Nitrosodiphenylamine	210	ug/Kg	1.0	U	U	Yes	
1,2,4,5-Tetrachlorobenzene	210	ug/Kg	1.0	U	U	Yes	
4-Bromophenyl-phenylether	210	ug/Kg	1.0	U	U	Yes	
Hexachlorobenzene	210	ug/Kg	1.0	U	U	Yes	
Atrazine	210	ug/Kg	1.0	U	U	Yes	
Pentachlorophenol	400	ug/Kg	1.0	U	U	Yes	
Phenanthrene	210	ug/Kg	1.0	U	U	Yes	
Anthracene	210	ug/Kg	1.0	U	U	Yes	
Carbazole	210	ug/Kg	1.0	U	U	Yes	
Di-n-butylphthalate	60	ug/Kg	1.0	J	J	Yes	
Fluoranthene	210	ug/Kg	1.0	U	U	Yes	
Pyrene	210	ug/Kg	1.0	U	U	Yes	
Butylbenzylphthalate	210	ug/Kg	1.0	U	U	Yes	
3,3'-Dichlorobenzidine	210	ug/Kg	1.0	U	U	Yes	
Benzo(a)anthracene	210	ug/Kg	1.0	U	U	Yes	
Chrysene	210	ug/Kg	1.0	U	U	Yes	
Bis(2-ethylhexyl)	210	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
phthalate	210	ug/Kg	1.0	U	U	Yes	
Di-n-octylphthalate	210	ug/Kg	1.0	U	U	Yes	
Benzo(b)fluoranthene	210	ug/Kg	1.0	U	U	Yes	
Benzo(k)fluoranthene	210	ug/Kg	1.0	U	U	Yes	
Benzo(a)pyrene	210	ug/Kg	1.0	U	U	Yes	
Indeno(1,2,3-cd)pyrene	210	ug/Kg	1.0	U	U	Yes	
Dibenzo(a,h)anthracene	210	ug/Kg	1.0	U	U	Yes	
Benzo(g,h,i)perylene	210	ug/Kg	1.0	U	U	Yes	
2,3,4,6-Tetrachlorophenol	210	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AC6	Lab Code: MITKEM

Sample Number:	E0AD1	Method:	VOA_Low_Med	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD01-(0-6)-072513	pH:	7.0	Sample Date:	07/25/2013	Sample Time:	13:00:00
% Moisture :	51.03093			% Solids :			

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	12	ug/Kg	1.0	U	U	Yes	
Chloromethane	12	ug/Kg	1.0	U	U	Yes	
Vinyl chloride	12	ug/Kg	1.0	U	U	Yes	
Bromomethane	12	ug/Kg	1.0	U	U	Yes	
Chloroethane	12	ug/Kg	1.0	U	U	Yes	
Trichlorofluorom ethane	12	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethene	12	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloro-1,2,2-trifluoroethane	12	ug/Kg	1.0	U	U	Yes	
Acetone	24	ug/Kg	1.0	U	U	Yes	
Carbon disulfide	12	ug/Kg	1.0	U	U	Yes	
Methyl acetate	12	ug/Kg	1.0	U	U	Yes	
Methylene chloride	12	ug/Kg	1.0	U	U	Yes	
trans-1,2-Dichloroethene	12	ug/Kg	1.0	U	U	Yes	
Methyl tert-butyl ether	12	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethane	12	ug/Kg	1.0	U	U	Yes	
cis-1,2-Dichloroethene	12	ug/Kg	1.0	U	U	Yes	
2-Butanone	24	ug/Kg	1.0	U	U	Yes	
Bromochloromet hane	12	ug/Kg	1.0	U	U	Yes	
Chloroform	12	ug/Kg	1.0	U	U	Yes	
1,1,1-Trichloroethane	12	ug/Kg	1.0	U	U	Yes	
Cyclohexane	12	ug/Kg	1.0	U	U	Yes	
Carbon tetrachloride	12	ug/Kg	1.0	U	U	Yes	
Benzene	12	ug/Kg	1.0	U	U	Yes	
1,2-Dichloroethane	12	ug/Kg	1.0	U	U	Yes	
1,4-Dioxane	240	ug/Kg	1.0	U	R	Yes	
Trichloroethene	12	ug/Kg	1.0	U	U	Yes	
Methylcyclohexa ne	12	ug/Kg	1.0	U	U	Yes	
1,2-Dichloropropane	12	ug/Kg	1.0	U	U	Yes	
Bromodichlorom	12	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
ethane	12	ug/Kg	1.0	U	U	Yes	
cis-1,3-Dichloropropene	12	ug/Kg	1.0	U	U	Yes	
4-Methyl-2-pentanone	24	ug/Kg	1.0	U	U	Yes	
Toluene	12	ug/Kg	1.0	U	U	Yes	
trans-1,3-Dichloropropene	12	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloroethane	12	ug/Kg	1.0	U	U	Yes	
Tetrachloroethene	12	ug/Kg	1.0	U	U	Yes	
2-Hexanone	24	ug/Kg	1.0	U	U	Yes	
Dibromochloromethane	12	ug/Kg	1.0	U	U	Yes	
1,2-Dibromoethane	12	ug/Kg	1.0	U	U	Yes	
Chlorobenzene	12	ug/Kg	1.0	U	U	Yes	
Ethylbenzene	12	ug/Kg	1.0	U	U	Yes	
o-Xylene	12	ug/Kg	1.0	U	U	Yes	
m,p-Xylene	12	ug/Kg	1.0	U	U	Yes	
Styrene	12	ug/Kg	1.0	U	U	Yes	
Bromoform	12	ug/Kg	1.0	U	U	Yes	
Isopropylbenzene	12	ug/Kg	1.0	U	U	Yes	
1,1,2,2-Tetrachloroethane	12	ug/Kg	1.0	U	U	Yes	
1,3-Dichlorobenzene	12	ug/Kg	1.0	U	U	Yes	
1,4-Dichlorobenzene	12	ug/Kg	1.0	U	U	Yes	
1,2-Dichlorobenzene	12	ug/Kg	1.0	U	U	Yes	
1,2-Dibromo-3-chloropropane	12	ug/Kg	1.0	U	U	Yes	
1,2,4-Trichlorobenzene	12	ug/Kg	1.0	U	U	Yes	
1,2,3-Trichlorobenzene	12	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AC6	Lab Code: MITKEM
Sample Number: E0AD1	Method: BNA	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD01-(0-6)-072513	pH: 6.9	Sample Date: 07/25/2013	Sample Time: 13:00:00
% Moisture : 51.03093		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Benzaldehyde	340	ug/Kg	1.0	U	U	Yes	
Phenol	340	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethyl)ether	340	ug/Kg	1.0	U	U	Yes	
2-Chlorophenol	340	ug/Kg	1.0	U	U	Yes	
2-Methylphenol	340	ug/Kg	1.0	U	U	Yes	
2,2'-Oxybis(1-chloropropane)	340	ug/Kg	1.0	U	U	Yes	
Acetophenone	340	ug/Kg	1.0	U	U	Yes	
4-Methylphenol	340	ug/Kg	1.0	U	U	Yes	
N-Nitroso-di-n-propylamine	340	ug/Kg	1.0	U	U	Yes	
Hexachloroethane	340	ug/Kg	1.0	U	U	Yes	
Nitrobenzene	340	ug/Kg	1.0	U	U	Yes	
Isophorone	340	ug/Kg	1.0	U	U	Yes	
2-Nitrophenol	340	ug/Kg	1.0	U	U	Yes	
2,4-Dimethylphenol	340	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethoxy)methane	340	ug/Kg	1.0	U	U	Yes	
2,4-Dichlorophenol	340	ug/Kg	1.0	U	U	Yes	
Naphthalene	340	ug/Kg	1.0	U	U	Yes	
4-Chloroaniline	340	ug/Kg	1.0	U	U	Yes	
Hexachlorobutadiene	340	ug/Kg	1.0	U	U	Yes	
Caprolactam	340	ug/Kg	1.0	U	U	Yes	
4-Chloro-3-methylphenol	340	ug/Kg	1.0	U	U	Yes	
2-Methylnaphthalene	340	ug/Kg	1.0	U	U	Yes	
Hexachlorocyclopentadiene	340	ug/Kg	1.0	U	U	Yes	
2,4,6-Trichlorophenol	340	ug/Kg	1.0	U	U	Yes	
2,4,5-Trichlorophenol	340	ug/Kg	1.0	U	U	Yes	
1,1'-Biphenyl	340	ug/Kg	1.0	U	U	Yes	
2-Chloronaphthalene	340	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
2-Nitroaniline	670	ug/Kg	1.0	U	U	Yes	
Dimethylphthalate	340	ug/Kg	1.0	U	U	Yes	
2,6-Dinitrotoluene	340	ug/Kg	1.0	U	U	Yes	
Acenaphthylene	340	ug/Kg	1.0	U	U	Yes	
3-Nitroaniline	670	ug/Kg	1.0	U	U	Yes	
Acenaphthene	340	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrophenol	670	ug/Kg	1.0	U	U	Yes	
4-Nitrophenol	670	ug/Kg	1.0	U	U	Yes	
Dibenzofuran	340	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrotoluene	340	ug/Kg	1.0	U	U	Yes	
Diethylphthalate	340	ug/Kg	1.0	U	U	Yes	
Fluorene	340	ug/Kg	1.0	U	U	Yes	
4-Chlorophenyl-phenylether	340	ug/Kg	1.0	U	U	Yes	
4-Nitroaniline	670	ug/Kg	1.0	U	U	Yes	
4,6-Dinitro-2-methylphenol	670	ug/Kg	1.0	U	U	Yes	
N-Nitrosodiphenylamine	340	ug/Kg	1.0	U	U	Yes	
1,2,4,5-Tetrachlorobenzene	340	ug/Kg	1.0	U	U	Yes	
4-Bromophenyl-phenylether	340	ug/Kg	1.0	U	U	Yes	
Hexachlorobenzene	340	ug/Kg	1.0	U	U	Yes	
Atrazine	340	ug/Kg	1.0	U	U	Yes	
Pentachlorophenol	670	ug/Kg	1.0	U	U	Yes	
Phenanthrene	180	ug/Kg	1.0	J	J	Yes	
Anthracene	340	ug/Kg	1.0	U	U	Yes	
Carbazole	340	ug/Kg	1.0	U	U	Yes	
Di-n-butylphthalate	120	ug/Kg	1.0	J	J	Yes	
Fluoranthene	200	ug/Kg	1.0	J	J	Yes	
Pyrene	130	ug/Kg	1.0	J	J	Yes	
Butylbenzylphthalate	340	ug/Kg	1.0	U	U	Yes	
3,3'-Dichlorobenzidine	340	ug/Kg	1.0	U	U	Yes	
Benzo(a)anthracene	85	ug/Kg	1.0	J	J	Yes	
Chrysene	93	ug/Kg	1.0	J	J	Yes	
Bis(2-ethylhexyl)	340	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
phthalate	340	ug/Kg	1.0	U	U	Yes	
Di-n-octylphthalate	340	ug/Kg	1.0	U	U	Yes	
Benzo(b)fluoranthene	70	ug/Kg	1.0	J	J	Yes	
Benzo(k)fluoranthene	340	ug/Kg	1.0	U	U	Yes	
Benzo(a)pyrene	340	ug/Kg	1.0	U	U	Yes	
Indeno(1,2,3-cd)pyrene	340	ug/Kg	1.0	U	U	Yes	
Dibenzo(a,h)anthracene	340	ug/Kg	1.0	U	U	Yes	
Benzo(g,h,i)perylene	340	ug/Kg	1.0	U	U	Yes	
2,3,4,6-Tetrachlorophenol	340	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AC6	Lab Code: MITKEM
Sample Number: E0AD2	Method: VOA_Low_Med	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD01-(6-12)-072513	pH: 7.0	Sample Date: 07/25/2013	Sample Time: 13:10:00
% Moisture : 40.83694		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	10	ug/Kg	1.0	U	U	Yes	
Chloromethane	10	ug/Kg	1.0	U	U	Yes	
Vinyl chloride	10	ug/Kg	1.0	U	U	Yes	
Bromomethane	10	ug/Kg	1.0	U	U	Yes	
Chloroethane	10	ug/Kg	1.0	U	U	Yes	
Trichlorofluorom ethane	10	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethene	10	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloro-1,2,2-trifluoroethane	10	ug/Kg	1.0	U	U	Yes	
Acetone	20	ug/Kg	1.0	U	U	Yes	
Carbon disulfide	10	ug/Kg	1.0	U	U	Yes	
Methyl acetate	10	ug/Kg	1.0	U	U	Yes	
Methylene chloride	10	ug/Kg	1.0	U	U	Yes	
trans-1,2-Dichloroethene	10	ug/Kg	1.0	U	U	Yes	
Methyl tert-butyl ether	10	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethane	10	ug/Kg	1.0	U	U	Yes	
cis-1,2-Dichloroethene	10	ug/Kg	1.0	U	U	Yes	
2-Butanone	20	ug/Kg	1.0	U	U	Yes	
Bromochloromet hane	10	ug/Kg	1.0	U	U	Yes	
Chloroform	10	ug/Kg	1.0	U	U	Yes	
1,1,1-Trichloroethane	10	ug/Kg	1.0	U	U	Yes	
Cyclohexane	10	ug/Kg	1.0	U	U	Yes	
Carbon tetrachloride	10	ug/Kg	1.0	U	U	Yes	
Benzene	10	ug/Kg	1.0	U	U	Yes	
1,2-Dichloroethane	10	ug/Kg	1.0	U	U	Yes	
1,4-Dioxane	200	ug/Kg	1.0	U	R	Yes	
Trichloroethene	10	ug/Kg	1.0	U	U	Yes	
Methylcyclohexa ne	10	ug/Kg	1.0	U	U	Yes	
1,2-Dichloropropane	10	ug/Kg	1.0	U	U	Yes	
Bromodichlorom	10	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
ethane	10	ug/Kg	1.0	U	U	Yes	
cis-1,3-Dichloropropene	10	ug/Kg	1.0	U	U	Yes	
4-Methyl-2-pentanone	20	ug/Kg	1.0	U	U	Yes	
Toluene	10	ug/Kg	1.0	U	U	Yes	
trans-1,3-Dichloropropene	10	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloroethane	10	ug/Kg	1.0	U	U	Yes	
Tetrachloroethene	10	ug/Kg	1.0	U	U	Yes	
2-Hexanone	20	ug/Kg	1.0	U	U	Yes	
Dibromochloromethane	10	ug/Kg	1.0	U	U	Yes	
1,2-Dibromoethane	10	ug/Kg	1.0	U	U	Yes	
Chlorobenzene	10	ug/Kg	1.0	U	U	Yes	
Ethylbenzene	10	ug/Kg	1.0	U	U	Yes	
o-Xylene	10	ug/Kg	1.0	U	U	Yes	
m,p-Xylene	10	ug/Kg	1.0	U	U	Yes	
Styrene	10	ug/Kg	1.0	U	U	Yes	
Bromoform	10	ug/Kg	1.0	U	U	Yes	
Isopropylbenzene	10	ug/Kg	1.0	U	U	Yes	
1,1,2,2-Tetrachloroethane	10	ug/Kg	1.0	U	U	Yes	
1,3-Dichlorobenzene	10	ug/Kg	1.0	U	U	Yes	
1,4-Dichlorobenzene	10	ug/Kg	1.0	U	U	Yes	
1,2-Dichlorobenzene	10	ug/Kg	1.0	U	U	Yes	
1,2-Dibromo-3-chloropropane	10	ug/Kg	1.0	U	U	Yes	
1,2,4-Trichlorobenzene	10	ug/Kg	1.0	U	U	Yes	
1,2,3-Trichlorobenzene	10	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AC6	Lab Code: MITKEM
Sample Number: E0AD2	Method: BNA	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD01-(6-12)-072513	pH: 7.3	Sample Date: 07/25/2013	Sample Time: 13:10:00
% Moisture : 40.83694		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Benzaldehyde	280	ug/Kg	1.0	U	U	Yes	
Phenol	280	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethyl)ether	280	ug/Kg	1.0	U	U	Yes	
2-Chlorophenol	280	ug/Kg	1.0	U	U	Yes	
2-Methylphenol	280	ug/Kg	1.0	U	U	Yes	
2,2'-Oxybis(1-chloropropane)	280	ug/Kg	1.0	U	U	Yes	
Acetophenone	96	ug/Kg	1.0	J	J	Yes	
4-Methylphenol	280	ug/Kg	1.0	U	U	Yes	
N-Nitroso-di-n-propylamine	280	ug/Kg	1.0	U	U	Yes	
Hexachloroethane	280	ug/Kg	1.0	U	U	Yes	
Nitrobenzene	280	ug/Kg	1.0	U	U	Yes	
Isophorone	280	ug/Kg	1.0	U	U	Yes	
2-Nitrophenol	280	ug/Kg	1.0	U	U	Yes	
2,4-Dimethylphenol	280	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethoxy)methane	280	ug/Kg	1.0	U	U	Yes	
2,4-Dichlorophenol	280	ug/Kg	1.0	U	U	Yes	
Naphthalene	280	ug/Kg	1.0	U	U	Yes	
4-Chloroaniline	280	ug/Kg	1.0	U	U	Yes	
Hexachlorobutadiene	280	ug/Kg	1.0	U	U	Yes	
Caprolactam	280	ug/Kg	1.0	U	U	Yes	
4-Chloro-3-methylphenol	280	ug/Kg	1.0	U	U	Yes	
2-Methylnaphthalene	280	ug/Kg	1.0	U	U	Yes	
Hexachlorocyclopentadiene	280	ug/Kg	1.0	U	U	Yes	
2,4,6-Trichlorophenol	280	ug/Kg	1.0	U	U	Yes	
2,4,5-Trichlorophenol	280	ug/Kg	1.0	U	U	Yes	
1,1'-Biphenyl	280	ug/Kg	1.0	U	U	Yes	
2-Chloronaphthalene	280	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
2-Nitroaniline	550	ug/Kg	1.0	U	U	Yes	
Dimethylphthalate	280	ug/Kg	1.0	U	U	Yes	
2,6-Dinitrotoluene	280	ug/Kg	1.0	U	U	Yes	
Acenaphthylene	280	ug/Kg	1.0	U	U	Yes	
3-Nitroaniline	550	ug/Kg	1.0	U	U	Yes	
Acenaphthene	280	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrophenol	550	ug/Kg	1.0	U	U	Yes	
4-Nitrophenol	550	ug/Kg	1.0	U	U	Yes	
Dibenzofuran	280	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrotoluene	280	ug/Kg	1.0	U	U	Yes	
Diethylphthalate	280	ug/Kg	1.0	U	U	Yes	
Fluorene	280	ug/Kg	1.0	U	U	Yes	
4-Chlorophenyl-phenylether	280	ug/Kg	1.0	U	U	Yes	
4-Nitroaniline	550	ug/Kg	1.0	U	U	Yes	
4,6-Dinitro-2-methylphenol	550	ug/Kg	1.0	U	U	Yes	
N-Nitrosodiphenylamine	280	ug/Kg	1.0	U	U	Yes	
1,2,4,5-Tetrachlorobenzene	280	ug/Kg	1.0	U	U	Yes	
4-Bromophenyl-phenylether	280	ug/Kg	1.0	U	U	Yes	
Hexachlorobenzene	280	ug/Kg	1.0	U	U	Yes	
Atrazine	280	ug/Kg	1.0	U	U	Yes	
Pentachlorophenol	550	ug/Kg	1.0	U	U	Yes	
Phenanthrene	280	ug/Kg	1.0	U	U	Yes	
Anthracene	280	ug/Kg	1.0	U	U	Yes	
Carbazole	280	ug/Kg	1.0	U	U	Yes	
Di-n-butylphthalate	69	ug/Kg	1.0	J	J	Yes	
Fluoranthene	99	ug/Kg	1.0	J	J	Yes	
Pyrene	77	ug/Kg	1.0	J	J	Yes	
Butylbenzylphthalate	280	ug/Kg	1.0	U	U	Yes	
3,3'-Dichlorobenzidine	280	ug/Kg	1.0	U	U	Yes	
Benzo(a)anthracene	280	ug/Kg	1.0	U	U	Yes	
Chrysene	280	ug/Kg	1.0	U	U	Yes	
Bis(2-ethylhexyl)	280	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
phthalate	280	ug/Kg	1.0	U	U	Yes	
Di-n-octylphthalate	280	ug/Kg	1.0	U	U	Yes	
Benzo(b)fluoranthene	280	ug/Kg	1.0	U	U	Yes	
Benzo(k)fluoranthene	280	ug/Kg	1.0	U	U	Yes	
Benzo(a)pyrene	280	ug/Kg	1.0	U	U	Yes	
Indeno(1,2,3-cd)pyrene	280	ug/Kg	1.0	U	U	Yes	
Dibenzo(a,h)anthracene	280	ug/Kg	1.0	U	U	Yes	
Benzo(g,h,i)perylene	280	ug/Kg	1.0	U	U	Yes	
2,3,4,6-Tetrachlorophenol	280	ug/Kg	1.0	U	U	Yes	
.beta.-Sitosterol			1.0	NJ		Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AC6	Lab Code: MITKEM

Sample Number:	E0AD3	Method:	VOA_Low_Med	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD01-(0-6)-072513D	pH:	7.0	Sample Date:	07/25/2013	Sample Time:	13:10:00
% Moisture :	48.42454			% Solids :			

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	12	ug/Kg	1.0	U	U	Yes	
Chloromethane	12	ug/Kg	1.0	U	U	Yes	
Vinyl chloride	12	ug/Kg	1.0	U	U	Yes	
Bromomethane	12	ug/Kg	1.0	U	U	Yes	
Chloroethane	12	ug/Kg	1.0	U	U	Yes	
Trichlorofluorom ethane	12	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethene	12	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloro-1,2,2-trifluoroethane	12	ug/Kg	1.0	U	U	Yes	
Acetone	25	ug/Kg	1.0	U	U	Yes	
Carbon disulfide	12	ug/Kg	1.0	U	U	Yes	
Methyl acetate	12	ug/Kg	1.0	U	U	Yes	
Methylene chloride	12	ug/Kg	1.0	U	U	Yes	
trans-1,2-Dichloroethene	12	ug/Kg	1.0	U	U	Yes	
Methyl tert-butyl ether	12	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethane	12	ug/Kg	1.0	U	U	Yes	
cis-1,2-Dichloroethene	12	ug/Kg	1.0	U	U	Yes	
2-Butanone	25	ug/Kg	1.0	U	U	Yes	
Bromochloromet hane	12	ug/Kg	1.0	U	U	Yes	
Chloroform	12	ug/Kg	1.0	U	U	Yes	
1,1,1-Trichloroethane	12	ug/Kg	1.0	U	U	Yes	
Cyclohexane	12	ug/Kg	1.0	U	U	Yes	
Carbon tetrachloride	12	ug/Kg	1.0	U	U	Yes	
Benzene	12	ug/Kg	1.0	U	U	Yes	
1,2-Dichloroethane	12	ug/Kg	1.0	U	U	Yes	
1,4-Dioxane	250	ug/Kg	1.0	U	R	Yes	
Trichloroethene	12	ug/Kg	1.0	U	U	Yes	
Methylcyclohexa ne	12	ug/Kg	1.0	U	U	Yes	
1,2-Dichloropropane	12	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Bromodichloromethane	12	ug/Kg	1.0	U	U	Yes	
cis-1,3-Dichloropropene	12	ug/Kg	1.0	U	U	Yes	
4-Methyl-2-pentanone	25	ug/Kg	1.0	U	U	Yes	
Toluene	12	ug/Kg	1.0	U	U	Yes	
trans-1,3-Dichloropropene	12	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloroethane	12	ug/Kg	1.0	U	U	Yes	
Tetrachloroethene	12	ug/Kg	1.0	U	U	Yes	
2-Hexanone	25	ug/Kg	1.0	U	U	Yes	
Dibromochloromethane	12	ug/Kg	1.0	U	U	Yes	
1,2-Dibromoethane	12	ug/Kg	1.0	U	U	Yes	
Chlorobenzene	12	ug/Kg	1.0	U	U	Yes	
Ethylbenzene	12	ug/Kg	1.0	U	U	Yes	
o-Xylene	12	ug/Kg	1.0	U	U	Yes	
m,p-Xylene	12	ug/Kg	1.0	U	U	Yes	
Styrene	12	ug/Kg	1.0	U	U	Yes	
Bromoform	12	ug/Kg	1.0	U	U	Yes	
Isopropylbenzene	12	ug/Kg	1.0	U	U	Yes	
1,1,2,2-Tetrachloroethane	12	ug/Kg	1.0	U	U	Yes	
1,3-Dichlorobenzene	12	ug/Kg	1.0	U	U	Yes	
1,4-Dichlorobenzene	12	ug/Kg	1.0	U	U	Yes	
1,2-Dichlorobenzene	12	ug/Kg	1.0	U	U	Yes	
1,2-Dibromo-3-chloropropane	12	ug/Kg	1.0	U	U	Yes	
1,2,4-Trichlorobenzene	12	ug/Kg	1.0	U	U	Yes	
1,2,3-Trichlorobenzene	12	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AC6	Lab Code: MITKEM
Sample Number: E0AD3	Method: BNA	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD01-(0-6)-072513D	pH: 6.9	Sample Date: 07/25/2013	Sample Time: 13:10:00
% Moisture : 48.42454		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Benzaldehyde	330	ug/Kg	1.0	U	U	Yes	
Phenol	330	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethyl)ether	330	ug/Kg	1.0	U	U	Yes	
2-Chlorophenol	330	ug/Kg	1.0	U	U	Yes	
2-Methylphenol	330	ug/Kg	1.0	U	U	Yes	
2,2'-Oxybis(1-chloropropane)	330	ug/Kg	1.0	U	U	Yes	
Acetophenone	100	ug/Kg	1.0	J	J	Yes	
4-Methylphenol	330	ug/Kg	1.0	U	U	Yes	
N-Nitroso-di-n-propylamine	330	ug/Kg	1.0	U	U	Yes	
Hexachloroethane	330	ug/Kg	1.0	U	U	Yes	
Nitrobenzene	330	ug/Kg	1.0	U	U	Yes	
Isophorone	330	ug/Kg	1.0	U	U	Yes	
2-Nitrophenol	330	ug/Kg	1.0	U	U	Yes	
2,4-Dimethylphenol	330	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethoxy)methane	330	ug/Kg	1.0	U	U	Yes	
2,4-Dichlorophenol	330	ug/Kg	1.0	U	U	Yes	
Naphthalene	330	ug/Kg	1.0	U	U	Yes	
4-Chloroaniline	330	ug/Kg	1.0	U	U	Yes	
Hexachlorobutadiene	330	ug/Kg	1.0	U	U	Yes	
Caprolactam	330	ug/Kg	1.0	U	U	Yes	
4-Chloro-3-methylphenol	330	ug/Kg	1.0	U	U	Yes	
2-Methylnaphthalene	330	ug/Kg	1.0	U	U	Yes	
Hexachlorocyclopentadiene	330	ug/Kg	1.0	U	U	Yes	
2,4,6-Trichlorophenol	330	ug/Kg	1.0	U	U	Yes	
2,4,5-Trichlorophenol	330	ug/Kg	1.0	U	U	Yes	
1,1'-Biphenyl	330	ug/Kg	1.0	U	U	Yes	
2-Chloronaphthalene	330	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
2-Nitroaniline	640	ug/Kg	1.0	U	U	Yes	
Dimethylphthalate	330	ug/Kg	1.0	U	U	Yes	
2,6-Dinitrotoluene	330	ug/Kg	1.0	U	U	Yes	
Acenaphthylene	330	ug/Kg	1.0	U	U	Yes	
3-Nitroaniline	640	ug/Kg	1.0	U	U	Yes	
Acenaphthene	330	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrophenol	640	ug/Kg	1.0	U	U	Yes	
4-Nitrophenol	640	ug/Kg	1.0	U	U	Yes	
Dibenzofuran	330	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrotoluene	330	ug/Kg	1.0	U	U	Yes	
Diethylphthalate	330	ug/Kg	1.0	U	U	Yes	
Fluorene	330	ug/Kg	1.0	U	U	Yes	
4-Chlorophenyl-phenylether	330	ug/Kg	1.0	U	U	Yes	
4-Nitroaniline	640	ug/Kg	1.0	U	U	Yes	
4,6-Dinitro-2-methylphenol	640	ug/Kg	1.0	U	U	Yes	
N-Nitrosodiphenylamine	330	ug/Kg	1.0	U	U	Yes	
1,2,4,5-Tetrachlorobenzene	330	ug/Kg	1.0	U	U	Yes	
4-Bromophenyl-phenylether	330	ug/Kg	1.0	U	U	Yes	
Hexachlorobenzene	330	ug/Kg	1.0	U	U	Yes	
Atrazine	330	ug/Kg	1.0	U	U	Yes	
Pentachlorophenol	640	ug/Kg	1.0	U	U	Yes	
Phenanthrene	330	ug/Kg	1.0	U	U	Yes	
Anthracene	330	ug/Kg	1.0	U	U	Yes	
Carbazole	330	ug/Kg	1.0	U	U	Yes	
Di-n-butylphthalate	140	ug/Kg	1.0	J	J	Yes	
Fluoranthene	330	ug/Kg	1.0	U	U	Yes	
Pyrene	330	ug/Kg	1.0	U	U	Yes	
Butylbenzylphthalate	330	ug/Kg	1.0	BJ	U	Yes	
3,3'-Dichlorobenzidine	330	ug/Kg	1.0	U	U	Yes	
Benzo(a)anthracene	330	ug/Kg	1.0	U	U	Yes	
Chrysene	330	ug/Kg	1.0	U	U	Yes	
Bis(2-ethylhexyl)	330	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
phthalate	330	ug/Kg	1.0	U	U	Yes	
Di-n-octylphthalate	330	ug/Kg	1.0	U	U	Yes	
Benzo(b)fluoranthene	330	ug/Kg	1.0	U	U	Yes	
Benzo(k)fluoranthene	330	ug/Kg	1.0	U	U	Yes	
Benzo(a)pyrene	330	ug/Kg	1.0	U	U	Yes	
Indeno(1,2,3-cd)pyrene	330	ug/Kg	1.0	U	U	Yes	
Dibenzo(a,h)anthracene	330	ug/Kg	1.0	U	U	Yes	
Benzo(g,h,i)perylene	330	ug/Kg	1.0	U	U	Yes	
2,3,4,6-Tetrachlorophenol	330	ug/Kg	1.0	U	U	Yes	
.gamma.-Sitosterol			1.0	NJ		Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AC6	Lab Code: MITKEM
Sample Number: SBLK4U	Method: BNA	Matrix: Soil	MA Number: DEFAULT
Sample Location:	pH: 7.0	Sample Date:	Sample Time:
% Moisture : 0.00000		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Benzaldehyde	170	ug/Kg	1.0	U	U	Yes	
Phenol	170	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethyl)ether	170	ug/Kg	1.0	U	U	Yes	
2-Chlorophenol	170	ug/Kg	1.0	U	U	Yes	
2-Methylphenol	170	ug/Kg	1.0	U	U	Yes	
2,2'-Oxybis(1-chloropropane)	170	ug/Kg	1.0	U	U	Yes	
Acetophenone	170	ug/Kg	1.0	U	U	Yes	
4-Methylphenol	170	ug/Kg	1.0	U	U	Yes	
N-Nitroso-di-n-propylamine	170	ug/Kg	1.0	U	U	Yes	
Hexachloroethane	170	ug/Kg	1.0	U	U	Yes	
Nitrobenzene	170	ug/Kg	1.0	U	U	Yes	
Isophorone	170	ug/Kg	1.0	U	U	Yes	
2-Nitrophenol	170	ug/Kg	1.0	U	U	Yes	
2,4-Dimethylphenol	170	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethoxy)methane	170	ug/Kg	1.0	U	U	Yes	
2,4-Dichlorophenol	170	ug/Kg	1.0	U	U	Yes	
Naphthalene	170	ug/Kg	1.0	U	U	Yes	
4-Chloroaniline	170	ug/Kg	1.0	U	U	Yes	
Hexachlorobutadiene	170	ug/Kg	1.0	U	U	Yes	
Caprolactam	170	ug/Kg	1.0	U	U	Yes	
4-Chloro-3-methylphenol	170	ug/Kg	1.0	U	U	Yes	
2-Methylnaphthalene	170	ug/Kg	1.0	U	U	Yes	
Hexachlorocyclopentadiene	170	ug/Kg	1.0	U	U	Yes	
2,4,6-Trichlorophenol	170	ug/Kg	1.0	U	U	Yes	
2,4,5-Trichlorophenol	170	ug/Kg	1.0	U	U	Yes	
1,1'-Biphenyl	170	ug/Kg	1.0	U	U	Yes	
2-Chloronaphthalene	170	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
2-Nitroaniline	330	ug/Kg	1.0	U	U	Yes	
Dimethylphthalate	170	ug/Kg	1.0	U	U	Yes	
2,6-Dinitrotoluene	170	ug/Kg	1.0	U	U	Yes	
Acenaphthylene	170	ug/Kg	1.0	U	U	Yes	
3-Nitroaniline	330	ug/Kg	1.0	U	U	Yes	
Acenaphthene	170	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrophenol	330	ug/Kg	1.0	U	U	Yes	
4-Nitrophenol	330	ug/Kg	1.0	U	U	Yes	
Dibenzofuran	170	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrotoluene	170	ug/Kg	1.0	U	U	Yes	
Diethylphthalate	170	ug/Kg	1.0	U	U	Yes	
Fluorene	170	ug/Kg	1.0	U	U	Yes	
4-Chlorophenyl-phenylether	170	ug/Kg	1.0	U	U	Yes	
4-Nitroaniline	330	ug/Kg	1.0	U	U	Yes	
4,6-Dinitro-2-methylphenol	330	ug/Kg	1.0	U	U	Yes	
N-Nitrosodiphenylamine	170	ug/Kg	1.0	U	U	Yes	
1,2,4,5-Tetrachlorobenzene	170	ug/Kg	1.0	U	U	Yes	
4-Bromophenyl-phenylether	170	ug/Kg	1.0	U	U	Yes	
Hexachlorobenzene	170	ug/Kg	1.0	U	U	Yes	
Atrazine	170	ug/Kg	1.0	U	U	Yes	
Pentachlorophenol	330	ug/Kg	1.0	U	U	Yes	
Phenanthrene	170	ug/Kg	1.0	U	U	Yes	
Anthracene	170	ug/Kg	1.0	U	U	Yes	
Carbazole	170	ug/Kg	1.0	U	U	Yes	
Di-n-butylphthalate	170	ug/Kg	1.0	U	U	Yes	
Fluoranthene	170	ug/Kg	1.0	U	U	Yes	
Pyrene	170	ug/Kg	1.0	U	U	Yes	
Butylbenzylphthalate	36	ug/Kg	1.0	J	J	Yes	
3,3'-Dichlorobenzidine	170	ug/Kg	1.0	U	U	Yes	
Benzo(a)anthracene	170	ug/Kg	1.0	U	U	Yes	
Chrysene	170	ug/Kg	1.0	U	U	Yes	
Bis(2-ethylhexyl)	170	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
phthalate	170	ug/Kg	1.0	U	U	Yes	
Di-n-octylphthalate	170	ug/Kg	1.0	U	U	Yes	
Benzo(b)fluoranthene	170	ug/Kg	1.0	U	U	Yes	
Benzo(k)fluoranthene	170	ug/Kg	1.0	U	U	Yes	
Benzo(a)pyrene	170	ug/Kg	1.0	U	U	Yes	
Indeno(1,2,3-cd)pyrene	170	ug/Kg	1.0	U	U	Yes	
Dibenzo(a,h)anthracene	170	ug/Kg	1.0	U	U	Yes	
Benzo(g,h,i)perylene	170	ug/Kg	1.0	U	U	Yes	
2,3,4,6-Tetrachlorophenol	170	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AC6	Lab Code: MITKEM
Sample Number: VBLKV5	Method: VOA_Low_Med	Matrix: Soil	MA Number: DEFAULT
Sample Location:	pH: 7.0	Sample Date:	Sample Time:
% Moisture : 0.00000		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	5.0	ug/Kg	1.0	U	U	Yes	
Chloromethane	5.0	ug/Kg	1.0	U	U	Yes	
Vinyl chloride	5.0	ug/Kg	1.0	U	U	Yes	
Bromomethane	5.0	ug/Kg	1.0	U	U	Yes	
Chloroethane	5.0	ug/Kg	1.0	U	U	Yes	
Trichlorofluorom ethane	5.0	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethene	5.0	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	ug/Kg	1.0	U	U	Yes	
Acetone	10	ug/Kg	1.0	U	U	Yes	
Carbon disulfide	5.0	ug/Kg	1.0	U	U	Yes	
Methyl acetate	5.0	ug/Kg	1.0	U	U	Yes	
Methylene chloride	5.0	ug/Kg	1.0	U	U	Yes	
trans-1,2-Dichloroethene	5.0	ug/Kg	1.0	U	U	Yes	
Methyl tert-butyl ether	5.0	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethane	5.0	ug/Kg	1.0	U	U	Yes	
cis-1,2-Dichloroethene	5.0	ug/Kg	1.0	U	U	Yes	
2-Butanone	10	ug/Kg	1.0	U	U	Yes	
Bromochloromet hane	5.0	ug/Kg	1.0	U	U	Yes	
Chloroform	5.0	ug/Kg	1.0	U	U	Yes	
1,1,1-Trichloroethane	5.0	ug/Kg	1.0	U	U	Yes	
Cyclohexane	5.0	ug/Kg	1.0	U	U	Yes	
Carbon tetrachloride	5.0	ug/Kg	1.0	U	U	Yes	
Benzene	5.0	ug/Kg	1.0	U	U	Yes	
1,2-Dichloroethane	5.0	ug/Kg	1.0	U	U	Yes	
1,4-Dioxane	100	ug/Kg	1.0	U	R	Yes	
Trichloroethene	5.0	ug/Kg	1.0	U	U	Yes	
Methylcyclohexa ne	5.0	ug/Kg	1.0	U	U	Yes	
1,2-Dichloropropane	5.0	ug/Kg	1.0	U	U	Yes	
Bromodichlorom	5.0	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
ethane	5.0	ug/Kg	1.0	U	U	Yes	
cis-1,3-Dichloropropene	5.0	ug/Kg	1.0	U	U	Yes	
4-Methyl-2-pentanone	10	ug/Kg	1.0	U	U	Yes	
Toluene	5.0	ug/Kg	1.0	U	U	Yes	
trans-1,3-Dichloropropene	5.0	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloroethane	5.0	ug/Kg	1.0	U	U	Yes	
Tetrachloroethene	5.0	ug/Kg	1.0	U	U	Yes	
2-Hexanone	10	ug/Kg	1.0	U	U	Yes	
Dibromochloromethane	5.0	ug/Kg	1.0	U	U	Yes	
1,2-Dibromoethane	5.0	ug/Kg	1.0	U	U	Yes	
Chlorobenzene	5.0	ug/Kg	1.0	U	U	Yes	
Ethylbenzene	5.0	ug/Kg	1.0	U	U	Yes	
o-Xylene	5.0	ug/Kg	1.0	U	U	Yes	
m,p-Xylene	5.0	ug/Kg	1.0	U	U	Yes	
Styrene	5.0	ug/Kg	1.0	U	U	Yes	
Bromoform	5.0	ug/Kg	1.0	U	U	Yes	
Isopropylbenzene	5.0	ug/Kg	1.0	U	U	Yes	
1,1,2,2-Tetrachloroethane	5.0	ug/Kg	1.0	U	U	Yes	
1,3-Dichlorobenzene	5.0	ug/Kg	1.0	U	U	Yes	
1,4-Dichlorobenzene	5.0	ug/Kg	1.0	U	U	Yes	
1,2-Dichlorobenzene	5.0	ug/Kg	1.0	U	U	Yes	
1,2-Dibromo-3-chloropropane	5.0	ug/Kg	1.0	U	U	Yes	
1,2,4-Trichlorobenzene	5.0	ug/Kg	1.0	U	U	Yes	
1,2,3-Trichlorobenzene	5.0	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AC6	Lab Code: MITKEM
Sample Number: VHBLKV5	Method: VOA_Low_Med	Matrix: Soil	MA Number: DEFAULT
Sample Location:	pH: 7.0	Sample Date:	Sample Time:
% Moisture : 0.00000		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	5.0	ug/Kg	1.0	U	U	Yes	
Chloromethane	5.0	ug/Kg	1.0	U	U	Yes	
Vinyl chloride	5.0	ug/Kg	1.0	U	U	Yes	
Bromomethane	5.0	ug/Kg	1.0	U	U	Yes	
Chloroethane	5.0	ug/Kg	1.0	U	U	Yes	
Trichlorofluorom ethane	5.0	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethene	5.0	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	ug/Kg	1.0	U	U	Yes	
Acetone	10	ug/Kg	1.0	U	U	Yes	
Carbon disulfide	5.0	ug/Kg	1.0	U	U	Yes	
Methyl acetate	5.0	ug/Kg	1.0	U	U	Yes	
Methylene chloride	5.0	ug/Kg	1.0	U	U	Yes	
trans-1,2-Dichloroethene	5.0	ug/Kg	1.0	U	U	Yes	
Methyl tert-butyl ether	5.0	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethane	5.0	ug/Kg	1.0	U	U	Yes	
cis-1,2-Dichloroethene	5.0	ug/Kg	1.0	U	U	Yes	
2-Butanone	10	ug/Kg	1.0	U	U	Yes	
Bromochloromet hane	5.0	ug/Kg	1.0	U	U	Yes	
Chloroform	5.0	ug/Kg	1.0	U	U	Yes	
1,1,1-Trichloroethane	5.0	ug/Kg	1.0	U	U	Yes	
Cyclohexane	5.0	ug/Kg	1.0	U	U	Yes	
Carbon tetrachloride	5.0	ug/Kg	1.0	U	U	Yes	
Benzene	5.0	ug/Kg	1.0	U	U	Yes	
1,2-Dichloroethane	5.0	ug/Kg	1.0	U	U	Yes	
1,4-Dioxane	100	ug/Kg	1.0	U	R	Yes	
Trichloroethene	5.0	ug/Kg	1.0	U	U	Yes	
Methylcyclohexa ne	5.0	ug/Kg	1.0	U	U	Yes	
1,2-Dichloropropane	5.0	ug/Kg	1.0	U	U	Yes	
Bromodichlorom	5.0	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
ethane	5.0	ug/Kg	1.0	U	U	Yes	
cis-1,3-Dichloropropene	5.0	ug/Kg	1.0	U	U	Yes	
4-Methyl-2-pentanone	10	ug/Kg	1.0	U	U	Yes	
Toluene	5.0	ug/Kg	1.0	U	U	Yes	
trans-1,3-Dichloropropene	5.0	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloroethane	5.0	ug/Kg	1.0	U	U	Yes	
Tetrachloroethene	5.0	ug/Kg	1.0	U	U	Yes	
2-Hexanone	10	ug/Kg	1.0	U	U	Yes	
Dibromochloromethane	5.0	ug/Kg	1.0	U	U	Yes	
1,2-Dibromoethane	5.0	ug/Kg	1.0	U	U	Yes	
Chlorobenzene	5.0	ug/Kg	1.0	U	U	Yes	
Ethylbenzene	5.0	ug/Kg	1.0	U	U	Yes	
o-Xylene	5.0	ug/Kg	1.0	U	U	Yes	
m,p-Xylene	5.0	ug/Kg	1.0	U	U	Yes	
Styrene	5.0	ug/Kg	1.0	U	U	Yes	
Bromoform	5.0	ug/Kg	1.0	U	U	Yes	
Isopropylbenzene	5.0	ug/Kg	1.0	U	U	Yes	
1,1,2,2-Tetrachloroethane	5.0	ug/Kg	1.0	U	U	Yes	
1,3-Dichlorobenzene	5.0	ug/Kg	1.0	U	U	Yes	
1,4-Dichlorobenzene	5.0	ug/Kg	1.0	U	U	Yes	
1,2-Dichlorobenzene	5.0	ug/Kg	1.0	U	U	Yes	
1,2-Dibromo-3-chloropropane	5.0	ug/Kg	1.0	U	U	Yes	
1,2,4-Trichlorobenzene	5.0	ug/Kg	1.0	U	U	Yes	
1,2,3-Trichlorobenzene	5.0	ug/Kg	1.0	U	U	Yes	

National Functional Guidelines Report #09

Lab MITKEM(Mitkem Laboratories) **SDG** E0AC6 **Case** 43638 **Contract** EPW11033 **Region** 5 **DDTID** 179913 **SOW** SOM01.2

Tentatively Identified Compounds

BNA Sample=SBLK4U Location= Matrix=Soil Level=Low

CAS No.	Compound Name	RT (mins)	Concentration		Lab Qualifier
	Unknown-01	2.909	150	ug/Kg	J
	Unknown-02	2.930	130	ug/Kg	J
	Unknown-03	2.992	320	ug/Kg	J
	Unknown-04	3.023	370	ug/Kg	J
	Unknown-05	3.872	94	ug/Kg	J
	Unknown-06	5.528	400	ug/Kg	J

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Lab MITKEM(Mitkem Laboratories) **SDG** E0AC6 **Case** 43638 **Contract** EPW11033 **Region** 5 **DDTID** 179913 **SOW** SOM01.2

Tentatively Identified Compounds

BNA Sample=E0AD3 Location=CC-SD01-(0-6)-072513D Matrix=Soil Level=Low

CAS No.	Compound Name	RT (mins)	Concentration		Lab Qualifier
	Unknown-05	3.220	2000	ug/Kg	J
	Unknown-06	3.396	140	ug/Kg	J
	Unknown-07	3.603	300	ug/Kg	J
	Unknown-08	3.706	690	ug/Kg	J
	Unknown-09	5.342	170	ug/Kg	J
	Unknown-10	6.708	260	ug/Kg	J
	Unknown-11	7.971	160	ug/Kg	J
	Unknown-12	8.840	190	ug/Kg	J
	Unknown-13	8.861	280	ug/Kg	J
	Unknown-14	8.933	350	ug/Kg	J
	Unknown-15	9.037	130	ug/Kg	J
	Unknown-16	9.606	190	ug/Kg	J
	Unknown-17	9.865	450	ug/Kg	J
	Unknown-18	10.072	170	ug/Kg	J
	Unknown-19	10.507	130	ug/Kg	J
	Unknown-20	11.283	140	ug/Kg	J
	Unknown-21	11.552	300	ug/Kg	J
	Unknown-22	11.697	220	ug/Kg	J
	Unknown-23	11.738	230	ug/Kg	J
	Unknown-24	12.452	260	ug/Kg	J
	Unknown-25	12.483	270	ug/Kg	J
	Unknown-26	12.908	290	ug/Kg	J
	Unknown-27	13.229	360	ug/Kg	J
	Unknown-28	14.171	220	ug/Kg	J
83-47-6	.gamma.-Sitosterol	15.951	1700	ug/Kg	NJ
	Unknown-29	18.269	770	ug/Kg	J

National Functional Guidelines Report #09

Lab MITKEM(Mitkem Laboratories) **SDG** E0AC6 **Case** 43638 **Contract** EPW11033 **Region** 5 **DDTID** 179913 **SOW** SOM01.2

Tentatively Identified Compounds

BNA Sample=E0AD2 Location=CC-SD01-(6-12)-072513 Matrix=Soil Level=Low

CAS No.	Compound Name	RT (mins)	Concentration		Lab Qualifier
	Unknown-06	3.220	1900	ug/Kg	J
	Unknown-07	3.603	310	ug/Kg	J
	Unknown-08	3.706	430	ug/Kg	J
	Unknown-09	5.342	150	ug/Kg	J
	Unknown-11	6.718	220	ug/Kg	J
	Unknown-12	7.401	130	ug/Kg	J
	Unknown-13	7.971	150	ug/Kg	J
	Unknown-14	8.840	170	ug/Kg	J
	Unknown-15	8.861	170	ug/Kg	J
	Unknown-16	8.933	400	ug/Kg	J
	Unknown-17	9.865	380	ug/Kg	J
	Unknown-18	11.552	210	ug/Kg	J
	Unknown-19	11.697	170	ug/Kg	J
	Unknown-20	11.738	260	ug/Kg	J
	Unknown-21	12.452	190	ug/Kg	J
	Unknown-22	12.483	220	ug/Kg	J
	Unknown-23	12.908	190	ug/Kg	J
	Unknown-24	13.228	320	ug/Kg	J
	Unknown-25	14.181	240	ug/Kg	J
83-46-5	.beta.-Sitosterol	15.961	1800	ug/Kg	NJ
	Unknown-26	16.064	150	ug/Kg	J
	Unknown-27	16.385	220	ug/Kg	J
	Unknown-28	16.882	680	ug/Kg	J
	Unknown-29	18.269	800	ug/Kg	J

National Functional Guidelines Report #09

Lab MITKEM(Mitkem Laboratories) **SDG** E0AC6 **Case** 43638 **Contract** EPW11033 **Region** 5 **DDTID** 179913 **SOW** SOM01.2

Tentatively Identified Compounds

BNA Sample=E0AD1 Location=CC-SD01-(0-6)-072513 Matrix=Soil Level=Low

CAS No.	Compound Name	RT (mins)	Concentration		Lab Qualifier
	Unknown-06	3.706	290	ug/Kg	J
	Unknown-07	5.342	220	ug/Kg	J
	Unknown-09	6.718	400	ug/Kg	J
	Unknown-10	8.933	200	ug/Kg	J
	Unknown-11	9.865	230	ug/Kg	J
	Unknown-12	11.552	180	ug/Kg	J
	Unknown-13	11.738	150	ug/Kg	J
	Unknown-14	13.229	170	ug/Kg	J
	Unknown-15	17.607	180	ug/Kg	J

National Functional Guidelines Report #09

Lab MITKEM(Mitkem Laboratories) **SDG** E0AC6 **Case** 43638 **Contract** EPW11033 **Region** 5 **DDTID** 179913 **SOW** SOM01.2

Tentatively Identified Compounds

BNA Sample=E0AD0 Location=CC-SD02-(6-12)-072513 Matrix=Soil Level=Low

CAS No.	Compound Name	RT (mins)	Concentration		Lab Qualifier
	Unknown-06	3.603	140	ug/Kg	J
	Unknown-07	3.706	160	ug/Kg	J
	Unknown-08	5.114	84	ug/Kg	J
	Unknown-09	5.342	100	ug/Kg	J
	Unknown-11	5.652	110	ug/Kg	J
	Unknown-12	6.718	190	ug/Kg	J
	Unknown-13	7.050	96	ug/Kg	J
	Unknown-14	7.236	87	ug/Kg	J
	Unknown-15	7.650	130	ug/Kg	J
	Unknown-16	7.971	94	ug/Kg	J
	Unknown-17	8.861	140	ug/Kg	J
	Unknown-18	10.869	89	ug/Kg	J
	Unknown-19	11.697	92	ug/Kg	J
	Unknown-20	12.452	91	ug/Kg	J
	Unknown-21	13.229	190	ug/Kg	J

National Functional Guidelines Report #09

Lab MITKEM(Mitkem Laboratories) **SDG** E0AC6 **Case** 43638 **Contract** EPW11033 **Region** 5 **DDTID** 179913 **SOW** SOM01.2

Tentatively Identified Compounds

BNA Sample=E0AC9 Location=CC-SD02-(0-6)-072513 Matrix=Soil Level=Low

CAS No.	Compound Name	RT (mins)	Concentration		Lab Qualifier
	Unknown-05	3.603	180	ug/Kg	J
	Unknown-06	3.706	250	ug/Kg	J
	Unknown-07	5.114	110	ug/Kg	J
	Unknown-08	5.342	120	ug/Kg	J
	Unknown-10	6.718	230	ug/Kg	J
	Unknown-11	7.360	91	ug/Kg	J
	Unknown-12	8.861	140	ug/Kg	J
	Unknown-13	11.241	96	ug/Kg	J
	Unknown-14	11.697	110	ug/Kg	J

National Functional Guidelines Report #09

Lab MITKEM(Mitkem Laboratories) **SDG** E0AC6 **Case** 43638 **Contract** EPW11033 **Region** 5 **DDTID** 179913 **SOW** SOM01.2

Tentatively Identified Compounds

BNA Sample=E0AC8 Location=CC-SO15-(0-12)-072513 Matrix=Soil Level=Low

CAS No.	Compound Name	RT (mins)	Concentration		Lab Qualifier
	Unknown-05	3.706	80	ug/Kg	J
	Unknown-06	5.342	90	ug/Kg	J
	Unknown-08	6.708	120	ug/Kg	J
	Unknown-09	8.861	86	ug/Kg	J
	Unknown-10	11.438	77	ug/Kg	J
	Unknown-11	12.452	75	ug/Kg	J
	Unknown-12	13.229	88	ug/Kg	J
	Unknown-13	18.083	170	ug/Kg	J
	Unknown-14	18.269	600	ug/Kg	J

National Functional Guidelines Report #09

Lab MITKEM(Mitkem Laboratories) **SDG** E0AC6 **Case** 43638 **Contract** EPW11033 **Region** 5 **DDTID** 179913 **SOW** SOM01.2

Tentatively Identified Compounds

BNA Sample=E0AC7 Location=CC-SD03-(6-12)-072513 Matrix=Soil Level=Low

CAS No.	Compound Name	RT (mins)	Concentration		Lab Qualifier
	Unknown-05	3.603	100	ug/Kg	J
	Unknown-06	3.706	130	ug/Kg	J
	Unknown-08	6.708	150	ug/Kg	J
	Unknown-09	7.970	130	ug/Kg	J
	Unknown-10	8.861	140	ug/Kg	J

National Functional Guidelines Report #09

Lab MITKEM(Mitkem Laboratories) **SDG** E0AC6 **Case** 43638 **Contract** EPW11033 **Region** 5 **DDTID** 179913 **SOW** SOM01.2

Tentatively Identified Compounds

BNA Sample=E0AC6 Location=CC-SD03-(0-6)-072513 Matrix=Soil Level=Low

CAS No.	Compound Name	RT (mins)	Concentration		Lab Qualifier
	Unknown-04	3.603	130	ug/Kg	J
	Unknown-05	3.706	150	ug/Kg	J
	Unknown-06	4.327	100	ug/Kg	J
	Unknown-07	5.342	120	ug/Kg	J
	Unknown-09	6.718	210	ug/Kg	J
	Unknown-10	7.971	150	ug/Kg	J
	Unknown-11	8.861	100	ug/Kg	J
	Unknown-12	12.463	200	ug/Kg	J
	Unknown-13	14.626	240	ug/Kg	J

Regional Transmittal Form

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE:

SUBJECT: Review of Data
Received for Review on 8 Aug 2013

FROM: Timothy Prendiville, Supervisor (**SR-6J**)
Superfund Contract Management Section

TO: Data User: Weston

We have reviewed the data for the following case:

SITE NAME: Castle Construction - IL

CASE NUMBER: 43638 SDG NUMBER: E0AC6

Number and Type of Samples: 8 soil samples

Sample Numbers: E0AC6-C9; E0AD0-D3

Laboratory: MHKem Hrs for Review:

Following are our findings:

CC: Howard Pham
Region 5 TPO
Mail Code: **SA-5J**

Contract Laboratory Program

Sample Delivery Group (SDG)

Cover Sheet

SDG Number E0AC6

Laboratory Name	Mitkem Laboratories	Lab Code	MITKEM
Contract No.	EP-W-11-033	Case No.	43638
Analysis Price	$ 264	SDG Turnaround	14 days

EPA Sample Numbers in SDG (Listed in Numerical Order)

01) E0AC6	08) E0AD1		
02) E0AC6MS	09) E0AD2		
03) E0AC6MSD	10) E0AD3		
04) E0AC7			
05) E0AC8			
06) E0AC9			
07) E0AD0			

First Sample in SDG	Last Sample in SDG
E0AC6	E0AD3

First Sample Receipt Date	Last Sample Receipt Date
07/26/2013	07/26/2013

Note: There are a maximum of 20 field samples [excluding Performance Evaluation (PE) samples in an SDG. Attach the TR/COC Records to this form in alphanumeric order (the order listed above on this form).

Signature [signature] Date 07/29/2013

Monday, July 29, 2013 1:14:42 PM

SDG: E0AC6

USEPA CLP Organics COC (LAB COPY)

DateShipped:

CarrierName:

AirbillNo:

CHAIN OF CUSTODY RECORD

TAT: 14 Days

Case #: 43638

Cooler #:

No: 5-072513-092235-0007

Lab: Spectrum Analytical, Inc. DBA: MITKEM Laboratories

Lab Contact: Agnes Huntley

Lab Phone: 401-732-3400

M1270

Organic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Inorganic Sample #	For Lab Use Only
E0AC3	Sediment/ David Sena	Grab	CLP VOA, PER_SOL, CLP SVOA	5-123001 (None), 5-123002 (None), 5-123004 (None) (5)	CC-SD04-(0-6)-072513	07/25/2013 08:20	ME0AC3	
E0AC4	Sediment/ David Sena	Grab	CLP VOA, PER_SOL, CLP SVOA	5-123005 (None), 5-123006 (None), 5-123008 (None) (5)	CC-SD04-(0-6)-072513D	07/25/2013 08:25	ME0AC4	
E0AC5	Sediment/ David Sena	Grab	CLP VOA, PER_SOL, CLP SVOA	5-123009 (None), 5-123010 (None), 5-123012 (None) (5)	CC-SD04-(6-12)-072513	07/25/2013 08:30	ME0AC5	
01 E0AC6	Sediment/ David Sena	Grab	CLP VOA, PER_SOL, CLP SVOA	5-123013 (None), 5-123014 (None), 5-123015 (None) (11)	CC-SD03-(0-6)-072513	07/25/2013 10:00	ME0AC6	good
02 E0AC7	Sediment/ David Sena	Grab	CLP VOA, CLP SVOA, PER_SOL	5-123017 (None), 5-123018 (None), 5-123019 (None) (5)	CC-SD03-(6-12)-072513	07/25/2013 10:05	ME0AC7	↓
03 E0AC8	Soil/ David Sena	Grab	CLP VOA, CLP SVOA, PER_SOL	5-123021 (None), 5-123022 (None), 5-123023 (None) (5)	CC-SO15-(0-12)-072513	07/25/2013 11:05	ME0AC8	↓
04 E0AC9	Sediment/ David Sena	Grab	CLP VOA, PER_SOL, CLP SVOA	5-123025 (None), 5-123026 (None), 5-123028 (None) (5)	CC-SD02-(0-6)-072513	07/25/2013 12:15	ME0AC9	good

Sample(s) to be used for Lab QC: E0AC6

14 Day Turn around Time

Analysis Key: CLP VOA=CLP TCL Volatiles, PER_SOL=Percent Solids, CLP SVOA=CLP TCL Semivolatiles

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
	David Sena	7-25-13	[illegible]	7/26/13	8:50						

COPY

Original Documents Are Included in CSF E0AA5

Signed: AGH **Date:** 7/26/13

1.5°C

SDG E0AC6

USEPA CLP Organics COC (LAB COPY)

CHAIN OF CUSTODY RECORD

No: 5-072513-092235-0007

DateShipped:

TAT: 14 Days

Lab: Spectrum Analytical, Inc. DBA: MITKEM Laboratories

CarrierName:

Case #: 43638

Lab Contact: Agnes Huntley

AirbillNo:

Cooler #:

Lab Phone: 401-732-3400

M1270

Organic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Inorganic Sample #	For Lab Use Only
05 E0AD0	Sediment/ David Sena	Grab	CLP VOA, CLP SVOA, PER_SOL	5-123029 (None), 5-123030 (None), 5-123031 (None) (5)	CC-SD02-(6-12)-072513	07/25/2013 12:20	ME0AD0	good
06 E0AD1	Sediment/ David Sena	Grab	CLP VOA, PER_SOL, CLP SVOA	5-123033 (None), 5-123034 (None), 5-123035 (None) (5)	CC-SD01-(0-6)-072513	07/25/2013 13:00	ME0AD1	↓
07 E0AD2	Sediment/ David Sena	Grab	CLP VOA, CLP SVOA, PER_SOL	5-123037 (None), 5-123038 (None), 5-123039 (None) (5)	CC-SD01-(6-12)-072513	07/25/2013 13:10	ME0AD2	↓
08 E0AD3 ↓	Sediment/ David Sena	Grab	CLP VOA, PER_SOL, CLP SVOA	5-123041 (None), 5-123042 (None), 5-123043 (None) (5)	CC-SD01-(0-6)-072513D	07/25/2013 13:10	ME0AD3	good
SDG-Final Sample								

Special Instructions:

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

Analysis Key: CLP VOA=CLP TCL Volatiles, PER_SOL=Percent Solids, CLP SVOA=CLP TCL Semivolatiles

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
	David Sena	7-25-13	[illegible]	7/26/13	8:50						

12

1.5°C

SDG Narrative

Spectrum Analytical, Inc., featuring Hanibal Technology Rhode Island Division submits the enclosed data package in response to USEPA Case # 43638 and SDG# E0AC6. Analyses were performed for eight soil samples that were received on July 26, 2013.

The analyses were performed under USEPA Contract # EP-W-11-033.

Please note that the temperature of the sample-shipping cooler received on July 26 was measured at 1.5°C

The following samples are submitted in this data package:

Client ID	Lab ID	Analysis
E0AC6	M1270-01B	S
E0AC6MS	M1270-01BMS	S
E0AC6MSD	M1270-01BMSD	S
E0AC6	M1270-01C	V
E0AC6MS	M1270-01CMS	V
E0AC6MSD	M1270-01CMSD	V
E0AC7	M1270-02B	S
E0AC7	M1270-02C	V
E0AC8	M1270-03B	S
E0AC8	M1270-03C	V
E0AC9	M1270-04B	S
E0AC9	M1270-04C	V
E0AD0	M1270-05B	S
E0AD0	M1270-05C	V
E0AD1	M1270-06B	S
E0AD1	M1270-06C	V
E0AD2	M1270-07B	S
E0AD2	M1270-07C	V
E0AD3	M1270-08B	S
E0AD3	M1270-08C	V

V = Low/Medium Volatiles
S = Semi-Volatiles

The analyses were performed using USEPA CLP Multi-Media, Multi-Concentration (SOM1.2_) protocols. The analyses were performed with strict adherence to the SOW with the following exceptions and observations:

SAMPLE RECEIPT:

The soil samples for VOA were received in Encore samplers. The samples were logged in, labeled and then transferred to the VOA laboratory. Once in the VOA lab, the samples were extruded into tared, unpreserved VOA vials. The samples in the VOA vials were kept frozen until time of analysis.

The TR/COC lists the sample tag numbers as '5-1XXXX' or '5-1XXXXXX'; however, the actual sample tag numbers are listed as '5C-01XXXX' or '5C-1XXXXX'. Per Region 5, the laboratory should note the issue in the SDG Narrative and proceed with the analysis of samples.

Low/Medium Volatiles Analysis:

I. HOLDING TIMES

A. Sample Preparation:

All samples were prepared within the method-specified holding times.

B. Sample Analysis:

All samples were analyzed within the method-specified holding times.

II. METHODS

Samples were analyzed following procedures in laboratory test code: EPA CLP SOM 1.2 VOC

The following equation was used to calculate the concentration of target analytes for low-level soil samples:

$$\text{Concentration } (\mu g/Kg) = \frac{(\text{Amt})(\text{DF})(\text{UF})(5)}{\left(\frac{Ws * (100 - M)}{100}\right)}$$

where: Amt = on-column amount on raw data
DF = Dilution factor
UF = ng unit correction factor
Ws = Weight of sample extracted (g)
M = %moisture (not decanted)

The following equation was used to calculate the Amt in the previous equations:

$$Amt = \frac{(A_x)(IS)}{(A_{is})(RRF)}$$

where: A_x = area of the characteristic ion for the compound to be measured
A_{is} = area of the characteristic ion for the associated internal standard
IS = concentration of internal standard in ug/L
RRF = relative response factor

III. PREPARATION

Soil Samples were prepared following procedures in laboratory test code: SW5035

IV. INSTRUMENTATION

The following instrumentation was used:

Instrument Code: V5
Instrument Type: GCMS-VOA
Description: HP6890 / HP6890
Manufacturer: Hewlett-Packard
Model: 6890 / 6890

Trap used for instrument V5: OI Anaytical #10 Trap containing 8 cm each of Tenax, silica gel and carbon molecular sieve

GC Column used: 30 m X 0.25 mm ID [1.40 um thickness] DB-624 capillary column.

V. ANALYSIS

A. Calibration:

Calibrations met the SOW acceptance criteria.

Secondary ion 65 was used in the quantitation of 1,1-dichloroethene-d2 instead of primary ion 63 due to the interference with target compound 1,1-dichloroethene in the calibration standards.

B. Blanks:

All method blanks were within the acceptance criteria.

C. DMC Recoveries:

DMC recoveries were within the QC limits with the exception of the following:

E0AC6: recovery is above criteria for 1,2-Dichloropropane-d6 at 132% with criteria of (74-124), Benzene-d6 at 124% with criteria of (80-121), recovery is below criteria for trans-1,3-Dichloropropene-d4 at 67% with criteria of (72-130).

E0AD0: recovery is above criteria for Benzene-d6 at 121% with criteria of (80-121), Chloroethane-d5 at 137% with criteria of (61-130), recovery is below criteria for and trans-1,3-Dichloropropene-d4 at 72% with criteria of (72-130).

D. Matrix Spike / Matrix Spike Duplicate (MS/MSD):

Duplicate matrix spikes were performed on sample: E0AC6

Spike recoveries were within the advisory QC limits.

Replicate RPDs were within the advisory QC limits.

E. Internal Standards:

Internal standard peak areas were within the QC limits.

F. Dilutions:

No sample in this SDG required analysis at dilution.

G. Samples:

cis-1,3-Dichloropropene-d4 was detected in method blanks and in samples. The volatile organic deuterated monitoring compound spike solution contains both the cis- and trans-1,3-dichloropropene isomers. cis-1,3-Dichloropropene-d4 is not a dueterated monitoring compound for SOM01.2, while the trans isomer is. The cis isomer is considered a laboratory artifact, and is not reported as a tentatively identified compound.

No other unusual observations were made for the analysis.

H. Manual Integration

No manual integrations were performed on any sample or standard.

Semi-Volatiles Analysis:

I. HOLDING TIMES

A. Sample Preparation:

All samples were prepared within the method-specified holding times.

B. Sample Analysis:

All samples were analyzed within the method-specified holding times.

II. METHODS

Samples were analyzed following procedures in laboratory test code: EPA CLP SOM 1.2 BNA

The following equation was used to calculate the concentration of target analytes for soil samples:

$$\text{Concentration } (\mu g/Kg) = (\text{Amt})(\text{DF})(\text{Uf})\left(\frac{V_t}{V_i}\right)\left(\frac{1}{Ws}\right)\left(\frac{100}{(100-m)}\right)$$

where: Amt = on-column amount on raw data
DF = Dilution factor
UF = ng unit correction factor
Ws = Weight of sample extracted (g)
M = %moisture (not decanted)

The following equation was used to calculate the Amt in the previous equations:

$$Amt = \frac{(A_x)(IS)}{(A_{is})(RRF)}$$

where: A_x = area of the characteristic ion for the compound to be measured
A_{is} = area of the characteristic ion for the associated internal standard
IS = concentration of internal standard in ug/L
RRF = relative response factor

III. PREPARATION

Soil Samples were prepared following procedures in laboratory test code: SW3550B

IV. INSTRUMENTATION

The following instrumentation was used to perform

Instrument Code: S4
Instrument Type: GCMS-SEMI
Description: HP6890 / HP5973
Manufacturer: Hewlett-Packard
Model: 6890N / 5973N

GC Column used: 30 m X 0.25 mm ID [0.25 um thickness] Rxi-5sil MS capillary column.

V. ANALYSIS

A. Calibration:

Calibrations met the SOW acceptance criteria.

Ion 71 was used instead of ion 99 for Phenol-d5. Phenol-d5 closely elutes with bis (2-Chloroethyl) ether-d8, which also uses ion 99 for quantitation. This causes the recovery of Phenol-d5 to be higher. These two compounds have co-eluted in the high level calibration standard.

B. Blanks:

Method blank met SOW requirements.

Butylbenzylphthalate was detected in method blank SBLK4U. Please note that the concentration of Butylbenzylphthalate in the method blank is less than the CRQL.

C. DMC Recoveries:

DMC recoveries were within the QC limits.

D. Matrix Spike / Matrix Spike Duplicate (MS/MSD):

Duplicate matrix spikes were performed on sample: E0AC6

Spike recoveries were within the advisory QC limits with the exception of the following:

E0AC6MS: recovery is below criteria for Pyrene at 32% with criteria of (35-142).

Replicate RPDs were within the advisory QC limits.

E. Internal Standards:

Internal standard area counts were within QC criteria.

F. Dilutions:

No sample in this SDG required analysis at dilution.

G. Samples:

No other unusual observations were made for the analysis.

H. Manual Integration:

Where needed, manual integrations were performed to improve data quality. The corrections were reviewed and associated hardcopies generated and reported as required. Manual integrations are coded to provide the data reviewer justification for such action. The codes are labeled on the ion chromatogram signal (GC/MS signal) and chromatogram for GC based analysis as follows:

- M1 peak tailing or fronting
- M2 peak co-elution
- M3 rising or falling baseline
- M4 retention time shift
- M5 miscellaneous - under this category, the justification is explained
- M6 software did not integrate peak
- M7 partial peak integration

Manual integration was performed on the following:

E0AC9: Benzo(b)fluoranthene, Benzo(k)fluoranthene due to M2

E0AD1: Benzo(b)fluoranthene due to M2

All of the submittals to the region are originals other than logbook pages. Photocopies of logbook pages are included, with the originals maintained on file at the laboratory. Tunes, calibration verifications and initial calibrations that are shared among several cases are photocopies indicating the location of the originals.

I certify that this Sample Data Package is in compliance with the terms and condition of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy Sample Data Package and in the electronic data deliverable has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Agnes Huntley

Agnes Huntley
CLP Project Manager
08/07/13

Agnes Huntley [Warwick]

From: Baciocco, Kerrie [kbaciocco@fedcsc.com]
Sent: Monday, August 05, 2013 11:58 AM
To: Agnes Huntley [RI]; Dawne Smart [RI]
Cc: Alida Roberman; Carlene Thomas; Howard Pham; Tim Prendiville; Layne.warren@epa.gov; Balla, Tonya
Subject: Region 05 | Case 43638 | Lab MITKEM | Issue Discrepancies with tags, jars, and/or TR/COC | FINAL
Attachments: M1237_SDG Coversheet.pdf; M1238_SDG Coversheet.pdf; M1270_SDG Coversheet.pdf

Agnes,

Summary Start
Issue 1: The TR/COC lists the sample tag numbers as '5-1XXXX' or '5-1XXXXXX'; however, the actual sample tag numbers are listed as '5C-01XXXX' or '5C-1XXXXX'.
Resolution 1: Per Region 5, the laboratory should note the issue in the SDG Narrative and proceed with the analysis of samples.

Issue 2: For sample E0AA1, the sample tag lists the station location instead of the CLP sample ID and there is no sample collection time listed. The TR/COC lists the sample collection time as 10:20 for sample E0AA1.
Resolution 2: Per Region 5, the sample collection time listed on the TR/COC for sample E0AA1 is the correct sample collection time and should be used. Since the sample tag does not list the CLP sample ID, it is acceptable for the laboratory to match the tag information to the information on the TR/COC to identify the sample correctly as sample E0AA1.
Summary End

Please let me know if you have any additional questions. To waive any defect(s) associated with this issue, please contact your PO.

Thanks,

KERRIE A. BACIOCCO
Environmental Coordinator - Region 5
CSC

15000 Conference Center Drive, Chantilly, VA 20151
Civil Division | (p) 703-818-4134 | (f) 703-818-4602 | kbaciocco@fedcsc.com | www.csc.com

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From: Prendiville, Timothy [mailto:prendiville.timothy@epa.gov]
Sent: Monday, August 05, 2013 11:44 AM
To: Baciocco, Kerrie; Layne, Warren; Roberman, Alida; Thomas, Carlene; Pham, Howard
Subject: RE: Region 05 | Case 43638 | Lab MITKEM | Issue Discrepancies with tags, jars, and/or TR/COC

Kerrie,

The proposed resolutions are acceptable to the Region. Thanks.

From: Baciocco, Kerrie [mailto:kbaciocco@fedcsc.com]

Sent: Monday, August 05, 2013 10:45 AM
To: Layne, Warren; Roberman, Alida; Thomas, Carlene; Pham, Howard; Prendiville, Timothy
Subject: RE: Region 05 | Case 43638 | Lab MITKEM | Issue Discrepancies with tags, jars, and/or TR/COC

Warren,

I would just like to follow up on the email below which is pending response. Please advise if the proposed resolutions are acceptable to the Region.

Issue 1: The TR/COC lists the sample tag numbers as '5-1XXXX' or '5-1XXXXXX'; however, the actual sample tag numbers are listed as '5C-01XXXX' or '5C-1XXXXX'.
PROPOSED Resolution 1: Per Region 5, the laboratory should note the issue in the SDG Narrative and proceed with the analysis of samples.

Issue 2: For sample E0AA1, the sample tag lists the station location instead of the CLP sample ID and there is no sample collection time listed. The TR/COC lists the sample collection time as 10:20 for sample E0AA1.
PROPOSED Resolution 2: Per Region 5, the sample collection time listed on the TR/COC for sample E0AA1 is the correct sample collection time and should be used. Since the sample tag does not list the CLP sample ID, it is acceptable for the laboratory to match the tag information to the information on the TR/COC to identify the sample correctly as sample E0AA1.

Please let me know if you have any questions.
Thanks,

KERRIE A. BACIOCCO
Environmental Coordinator - Region 5
CSC

15000 Conference Center Drive, Chantilly, VA 20151
Civil Division | (p) 703-818-4134 | (f) 703-818-4602 | kbaciocco@fedcsc.com | www.csc.com

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From: Baciocco, Kerrie
Sent: Friday, August 02, 2013 4:14 PM
To: 'Warren Layne (Layne.warren@epa.gov)'; 'Alida Roberman'; 'Carlene Thomas'; 'Howard Pham'; 'Tim Prendiville'
Subject: Region 05 | Case 43638 | Lab MITKEM | Issue Discrepancies with tags, jars, and/or TR/COC

Warren,

This is Caitlin Shubick; Kerrie is out of the office.

MITKEM is reporting the following issues regarding Case 43638. Please advise if the proposed resolutions are acceptable to the Region.

Issue 1: The TR/COC lists the sample tag numbers as '5-1XXXX' or '5-1XXXXXX'; however, the actual sample tag numbers are listed as '5C-01XXXX' or '5C-1XXXXX'.
PROPOSED Resolution 1: Per Region 5, the laboratory should note the issue in the SDG Narrative and proceed with the analysis of samples.

Issue 2: For sample E0AA1, the sample tag lists the station location instead of the CLP sample ID and there is no sample collection time listed. The TR/COC lists the sample collection time as 10:20 for sample E0AA1.
PROPOSED Resolution 2: Per Region 5, the sample collection time listed on the TR/COC for sample E0AA1 is the correct

sample collection time and should be used. Since the sample tag does not list the CLP sample ID, it is acceptable for the laboratory to match the tag information to the information on the TR/COC to identify the sample correctly as sample E0AA1.

Please let me know if you have any questions.
Thanks,
Caitlin for

KERRIE A. BACIOCCO
Environmental Coordinator - Region 5
CSC

15000 Conference Center Drive, Chantilly, VA 20151
Civil Division | (p) 703-818-4134 | (f) 703-818-4602 | kbaciocco@fedcsc.com | www.csc.com

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From: Balla, Tonya [mailto:T.Balla@westonsolutions.com]
Sent: Friday, August 02, 2013 3:58 PM
To: Baciocco, Kerrie
Subject: RE: Region 05 | Case 43638 | Lab MITKEM | Issue Discrepancies with tags, jars, and/or TR/COC

The laboratory can note the tag number discrepancy in the laboratory narrative and proceed with analysis.

The time on the COC for sample E0AA1 is valid and should be used as the sample time for that sample. Matching the CLP number on the tag and COC is acceptable.

Thanks,

Tonya Balla
847 918-4094 office
847 528-2623 cell
t.balla@westonsolutions.com

From: Baciocco, Kerrie [mailto:kbaciocco@fedcsc.com]
Sent: Friday, August 02, 2013 12:35 PM
To: Balla, Tonya
Subject: Region 05 | Case 43638 | Lab MITKEM | Issue Discrepancies with tags, jars, and/or TR/COC

Hi Tonya,

This is Caitlin Shubick; Kerrie is out of the office.

MITKEM is reporting the following issues for Case 43638. Please advise how the laboratory should proceed.

Issue 1: The TR/COC lists the sample tag numbers as '5-1XXXX' or '5-1XXXXXX'; however, the actual sample tag numbers are listed as '5C-01XXXX' or '5C-1XXXXX'.

Issue 2: For sample E0AA1, the sample tag lists the station location instead of the CLP sample ID and there is no sample collection time listed. The TR/COC lists the sample collection time as 10:20 for sample E0AA1.

Please let me know if you have any questions.
Thanks,

KERRIE A. BACIOCCO
Environmental Coordinator - Region 5
CSC

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Civil Division | (p) 703-818-4134 | (f) 703-818-4602 | kbaciocco@fedcsc.com | www.csc.com

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From: Agnes Huntley [RI] [mailto:anq@spectrum-analytical.com]
Sent: Friday, August 02, 2013 1:08 PM
To: Baciocco, Kerrie
Subject: RE: Case 43638

The tag numbers are 5C- and six numbers after the dash. The TR/COC lists the tag numbers as 5-1XXXX or 5-1XXXXXX. The ones listed as 5-1XXXX should be 5C-01XXXX and the ones listed as 5-1XXXXX should be 5C-1XXXXX.

Agnes (Ng) Huntley
CLP Project Manager
Spectrum Analytical, featuring Hanibal Technology
Rhode Island Division
646 Camp Avenue
North Kingstown, RI 02852
(P) 401-732-3400
(F) 401-732-3499

From: Baciocco, Kerrie [mailto:kbaciocco@fedcsc.com]
Sent: Friday, August 02, 2013 1:13 PM
To: Agnes Huntley [RI]
Subject: RE: Case 43638

Thanks, Agnes.

Just one last thing I'd like to clarify for the tag number issue, in looking at the TR/COC, it looks like the tag number is listed as either '5-1XXXX', '5-0XXXX' for all samples; however, you indicated there is a letter 'C' between the '5' and the '-' on the actual sample tag (i.e. '5C-0XXXX' or '5C-1XXXX'). So the discrepancy appears to be the extra letter 'C' in the tag number on the sample tag, correct?

Please let me know if you have any questions.
Thanks,
Caitlin for

KERRIE A. BACIOCCO
Environmental Coordinator - Region 5
CSC

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Civil Division | (p) 703-818-4134 | (f) 703-818-4602 | kbaciocco@fedcsc.com | www.csc.com

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From: Agnes Huntley [RI] [mailto:ang@spectrum-analytical.com]
Sent: Friday, August 02, 2013 12:42 PM
To: Baciocco, Kerrie
Subject: RE: Case 43638

The TR/COCs are attached.

The tags are reviewed by our work orders. I did not realize when I sent the first email that if was all for the same case number.

Agnes (Ng) Huntley
CLP Project Manager
Spectrum Analytical, featuring Hanibal Technology
Rhode Island Division
646 Camp Avenue
North Kingstown, RI 02852
(P) 401-732-3400
(F) 401-732-3499

From: Baciocco, Kerrie [mailto:kbaciocco@fedcsc.com]
Sent: Friday, August 02, 2013 12:34 PM
To: Agnes Huntley [RI]
Subject: RE: Case 43638

Hi Agnes,

This is Caitlin Shubick; Kerrie is out of the office.

Can you please provide a copy of the TR/COC for Case 43638?

Also, to clarify the sample tag issue, was your second email about the sample tags a further clarification of the first email you sent? So to clarify, the issue is as stated below:

Issue: The TR/COC lists the sample tag numbers as 'XXXXX' or '1XXXXX'; however, the actual sample tag numbers are listed as '5C-0XXXXX' or '5C-1XXXXX'

Please let me know if you have any questions.
Thanks,
Caitlin for

KERRIE A. BACIOCCO
Environmental Coordinator - Region 5
CSC

15000 Conference Center Drive, Chantilly, VA 20151
Civil Division | (p) 703-818-4134 | (f) 703-818-4602 | kbaciocco@fedcsc.com | www.csc.com

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From: Agnes Huntley [RI] [mailto:ang@spectrum-analytical.com]
Sent: Friday, August 02, 2013 11:59 AM

To: Baciocco, Kerrie
Subject: Case 43638

Hi Kerrie,

The TR/COC lists the tag numbers as XXXXX or 1XXXXX. The actual tag numbers are 5C-0XXXXX or 5C-1XXXXX.

Thank you,
Agnes

Agnes (Ng) Huntley
CLP Project Manager
Spectrum Analytical, featuring Hanibal Technology
Rhode Island Division
646 Camp Avenue
North Kingstown, RI 02852
(P) 401-732-3400
(F) 401-732-3499
****
Due to rising cost of rush shipments, Spectrum Analytical requests that you allow sufficient time for all sample bottle order requests, 3 days notice at a minimum. If you need an expedited bottle order request Spectrum Analytical will provide the bottles but will request that you pay for the shipping. Spectrum Analytical will continue to pay for all shipping previously agreed to, given proper notification. Thank you for your understanding and cooperation

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From: Agnes Huntley [RI] [mailto:ang@spectrum-analytical.com]
Sent: Friday, August 02, 2013 11:42 AM
To: Baciocco, Kerrie
Subject: Case 43638 SDG E0AA0

Hi Kerrie,

The actual tag numbers are 5C-0xxxxx, however, the tag numbers are listed as 5C-xxxxx.

For sample E0AA1, the sample tag lists the station location instead of the CLP sample ID. It also does not list the time of sample collection. The TR/COC notes collection time as 10:20.

Thank you,
Agnes

Agnes (Ng) Huntley
CLP Project Manager
Spectrum Analytical, featuring Hanibal Technology
Rhode Island Division
646 Camp Avenue
North Kingstown, RI 02852
(P) 401-732-3400
(F) 401-732-3499
****
Due to rising cost of rush shipments, Spectrum Analytical requests that you allow sufficient time for all sample

bottle order requests, 3 days notice at a minimum. If you need an expedited bottle order request Spectrum Analytical will provide the bottles but will request that you pay for the shipping. Spectrum Analytical will continue to pay for all shipping previously agreed to, given proper notification. Thank you for your understanding and cooperation

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2C - FORM II VOA-3

SOIL VOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Level: (LOW/MED) LOW

	EPA SAMPLE NO.	VDMC1 (VCL)	#	VDMC2 (CLA)	#	VDMC3 (DCE)	#	VDMC4 (BUT)	#	VDMC5 (CLF)	#	VDMC6 (DCA)	#	VDMC7 (BEN)	#
01	VBLKV5	92		98		79		80		82		86		87	
02	E0AC6	98		114		87		31		87		99		124	*
03	E0AC6MS	97		105		81		82		87		103		96	
04	E0AC6MSD	97		104		86		86		86		110		105	
05	E0AC7	114		118		100		84		91		100		103	
06	E0AC8	105		110		94		84		84		99		99	
07	E0AC9	118		124		103		100		95		99		103	
08	E0AD0	122		137	*	104		48		97		114		121	*
09	E0AD1	120		128		107		106		99		105		107	
10	E0AD2	117		127		102		96		96		100		106	
11	E0AD3	120		126		106		97		98		100		105	
12	VHBLKV5	109		125		98		93		100		106		100	

			QC LIMITS
VDMC1	(VCL)	= Vinyl chloride-d3	(68-122)
VDMC2	(CLA)	= Chloroethane-d5	(61-130)
VDMC3	(DCE)	= 1,1-Dichloroethene-d2	(45-132)
VDMC4	(BUT)	= 2-Butanone-d5	(20-182)
VDMC5	(CLF)	= Chloroform-d	(72-123)
VDMC6	(DCA)	= 1,2-Dichloroethane-d4	(79-122)
VDMC7	(BEN)	= Benzene-d6	(80-121)

Column to be used to flag recovery values

* Values outside of contract required QC limits

2D - FORM II VOA-4

SOIL VOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Level: (LOW/MED) LOW

	EPA SAMPLE NO.	VDMC8 (DPA) #	VDMC9 (TOL) #	VDMC10 (TDP) #	VDMC11 (HEX) #	VDMC12 (DXE) #	VDMC13 (TCA) #	VDMC14 (DCZ) #	TOT OUT
01	VBLKV5	103	104	89	85	65	90	102	0
02	E0AC6	132 *	116	67 *	40	87	105	111	3
03	E0AC6MS	106	109	86	75	76	93	111	0
04	E0AC6MSD	106	106	87	83	75	96	110	0
05	E0AC7	101	110	95	87	64	84	103	0
06	E0AC8	96	108	93	91	74	86	102	0
07	E0AC9	100	108	97	96	83	90	106	0
08	E0AD0	123	112	72 *	54	102	99	107	3
09	E0AD1	103	109	101	98	89	93	106	0
10	E0AD2	102	109	96	90	73	86	103	0
11	E0AD3	102	109	93	87	63	88	105	0
12	VHBLKV5	101	101	81	70	69	85	106	0

			QC LIMITS
VDMC8	(DPA)	= 1,2-Dichloropropane-d6	(74-124)
VDMC9	(TOL)	= Toluene-d8	(78-121)
VDMC10	(TDP)	= trans-1,3-Dichloropropene-d4	(72-130)
VDMC11	(HEX)	= 2-Hexanone-d5	(17-184)
VDMC12	(DXE)	= 1,4-Dioxane-d8	(50-150)
VDMC13	(TCA)	= 1,1,2,2-Tetrachloroethane-d2	(56-161)
VDMC14	(DCZ)	= 1,2-Dichlorobenzene-d4	(70-131)

Column to be used to flag recovery values

* Values outside of contract required QC limits

Report 1,4-Dioxane-d8 for Low-Medium VOA analysis only

3B - FORM III VOA-2

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix Spike - EPA Sample No.: E0AC6 Level: (LOW/MED) LOW

COMPOUND	SPIKE ADDED (µg/Kg)	SAMPLE CONCENTRATION (µg/Kg)	MS CONCENTRATION (µg/Kg)	MS %REC	#	QC. LIMITS REC.
1,1-Dichloroethene	77.5043	0.0000	49.9882	64		59-172
Benzene	77.5043	0.0000	63.7794	82		66-142
Trichloroethene	77.5043	0.0000	67.3384	87		62-137
Toluene	77.5043	0.0000	72.1039	93		59-139
Chlorobenzene	77.5043	0.0000	70.3522	91		60-133

COMPOUND	SPIKE ADDED (µg/Kg)	MSD CONCENTRATION (µg/Kg)	MSD %REC	#	%RPD	#	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	70.0520	45.2645	65		0		0-22	59-172
Benzene	70.0520	64.6302	92		11		0-21	66-142
Trichloroethene	70.0520	61.9756	88		2		0-24	62-137
Toluene	70.0520	63.7626	91		2		0-21	59-139
Chlorobenzene	70.0520	64.2265	92		1		0-21	60-133

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits

COMMENTS:

4A - FORM IV VOA
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.
VBLKV5

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Lab File ID: V505132.D Lab Sample ID: MB-72915

Instrument ID: V5

Matrix: (SOIL/SED/WATER) SOIL Date Analyzed: 07/30/2013

Level: (TRACE or LOW/MED) LOW Time Analyzed: 19:29

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	E0AC6	M1270-01C	V505135.D	20:45
02	E0AC6MS	M1270-01CMS	V505136.D	21:10
03	E0AC6MSD	M1270-01CMSD	V505137.D	21:35
04	E0AC7	M1270-02C	V505138.D	22:00
05	E0AC8	M1270-03C	V505139.D	22:25
06	E0AC9	M1270-04C	V505140.D	22:50
07	E0AD0	M1270-05C	V505141.D	23:16
08	E0AD1	M1270-06C	V505142.D	23:42
09	E0AD2	M1270-07C	V505143.D	0:07
10	E0AD3	M1270-08C	V505144.D	0:33
11	VHBLKV5	VHBLKV5	V505155.D	5:11

COMMENTS:

SOM01.2 (6/2007)

8A - FORM VIII VOA

VOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

GC Column: DB-624 ID: 0.25 (mm) Init. Calib. Date(s): 07/28/2013 07/28/2013

EPA Sample No.(VSTD#####): VSTD050V5 Date Analyzed: 07/30/2013

Lab File ID (Standard): V5O5131.D Time Analyzed: 19:03

Instrument ID: V5 Heated Purge: (Y/N) Y

		IS1 (CBZ) AREA #	RT #	IS2 (DFB) AREA #	RT #	IS3 (DCB) AREA #	RT #
	12 HOUR STD	196834	9.073	226800	5.706	98470	12.243
	UPPER LIMIT	393668	9.573	453600	6.206	196940	12.743
	LOWER LIMIT	98417	8.573	113400	5.206	49235	11.743
	EPA SAMPLE NO.						
01	VBLKV5	270501	9.081	304003	5.703	128981	12.239
02	E0AC6	219702	9.084	285872	5.705	85095	12.241
03	E0AC6MS	247179	9.080	268746	5.713	113361	12.249
04	E0AC6MSD	240926	9.079	265799	5.712	111022	12.248
05	E0AC7	221807	9.085	241960	5.707	108464	12.243
06	E0AC8	226996	9.078	253249	5.711	110035	12.248
07	E0AC9	189539	9.084	219759	5.705	90336	12.241
08	E0AD0	166198	9.078	213244	5.712	61996	12.248
09	E0AD1	182715	9.081	210173	5.703	87942	12.250
10	E0AD2	187561	9.079	218671	5.712	89391	12.248
11	E0AD3	241382	9.079	272871	5.712	115145	12.248
12	VHBLKV5	201574	9.083	216408	5.705	90994	12.241

IS1 (CBZ) = Chlorobenzene-d5
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (DCB) = 1,4-Dichlorobenzene-d4
AREA UPPER LIMIT = 200% (Low-Medium Volatiles) and 140% (Trace Volatiles) of internal standard area
AREA LOWER LIMIT = 50% (Low-Medium Volatiles) and 60% (Trace Volatiles) of internal standard area
RT UPPER LIMIT = +0.50 (Low-Medium Volatiles) and +0.33 (Trace Volatiles) minutes of internal standard RT
RT LOWER LIMIT = -0.50 (Low-Medium Volatiles) and -0.33 (Trace Volatiles) minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AC6

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1270-01C

Sample wt/vol: 4.60 (g/mL) G Lab File ID: V505135.D

Level: (TRACE/LOW/MED) LOW Date Received: 07/26/2013

% Moisture: not dec. 31 Date Analyzed: 07/30/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	7.9	U
74-87-3	Chloromethane	7.9	U
75-01-4	Vinyl chloride	7.9	U
74-83-9	Bromomethane	7.9	U
75-00-3	Chloroethane	7.9	U
75-69-4	Trichlorofluoromethane	7.9	U
75-35-4	1,1-Dichloroethene	7.9	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	7.9	U
67-64-1	Acetone	9.1	J
75-15-0	Carbon disulfide	7.9	U
79-20-9	Methyl acetate	7.9	U
75-09-2	Methylene chloride	7.9	U
156-60-5	trans-1,2-Dichloroethene	7.9	U
1634-04-4	Methyl tert-butyl ether	7.9	U
75-34-3	1,1-Dichloroethane	7.9	U
156-59-2	cis-1,2-Dichloroethene	7.9	U
78-93-3	2-Butanone	16	U
74-97-5	Bromochloromethane	7.9	U
67-66-3	Chloroform	7.9	U
71-55-6	1,1,1-Trichloroethane	7.9	U
110-82-7	Cyclohexane	7.9	U
56-23-5	Carbon tetrachloride	7.9	U
71-43-2	Benzene	7.9	U
107-06-2	1,2-Dichloroethane	7.9	U
123-91-1	1,4-Dioxane	160	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

SOM01.2 (6/2007)

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AC6

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1270-01C

Sample wt/vol: 4.60 (g/mL) G Lab File ID: V505135.D

Level: (TRACE/LOW/MED) LOW Date Received: 07/26/2013

% Moisture: not dec. 31 Date Analyzed: 07/30/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	7.9	U
108-87-2	Methylcyclohexane	7.9	U
78-87-5	1,2-Dichloropropane	7.9	U
75-27-4	Bromodichloromethane	7.9	U
10061-01-5	cis-1,3-Dichloropropene	7.9	U
108-10-1	4-Methyl-2-pentanone	16	U
108-88-3	Toluene	7.9	U
10061-02-6	trans-1,3-Dichloropropene	7.9	U
79-00-5	1,1,2-Trichloroethane	7.9	U
127-18-4	Tetrachloroethene	7.9	U
591-78-6	2-Hexanone	16	U
124-48-1	Dibromochloromethane	7.9	U
106-93-4	1,2-Dibromoethane	7.9	U
108-90-7	Chlorobenzene	7.9	U
100-41-4	Ethylbenzene	7.9	U
179601-23-1	m,p-Xylene	7.9	U
95-47-6	o-Xylene	7.9	U
100-42-5	Styrene	7.9	U
75-25-2	Bromoform	7.9	U
98-82-8	Isopropylbenzene	7.9	U
79-34-5	1,1,2,2-Tetrachloroethane	7.9	U
541-73-1	1,3-Dichlorobenzene	7.9	U
106-46-7	1,4-Dichlorobenzene	7.9	U
95-50-1	1,2-Dichlorobenzene	7.9	U
96-12-8	1,2-Dibromo-3-chloropropane	7.9	U
120-82-1	1,2,4-Trichlorobenzene	7.9	U
87-61-6	1,2,3-Trichlorobenzene	7.9	U

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E0AC6

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1270-01C

Sample wt/vol: 4.60 (g/mL) G Lab File ID: V505135.D

Level: (TRACE or LOW/MED) LOW Date Received: 07/26/2013

% Moisture: not dec. 31 Date Analyzed: 07/30/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

SOM01.2 (6/2007)

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AC6MS

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1270-01CMS

Sample wt/vol: 4.70 (g/mL) G Lab File ID: V505136.D

Level: (TRACE/LOW/MED) LOW Date Received: 07/26/2013

% Moisture: not dec. 31 Date Analyzed: 07/30/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	7.8	U
74-87-3	Chloromethane	7.8	U
75-01-4	Vinyl chloride	7.8	U
74-83-9	Bromomethane	7.8	U
75-00-3	Chloroethane	7.8	U
75-69-4	Trichlorofluoromethane	7.8	U
75-35-4	1,1-Dichloroethene	50	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	7.8	U
67-64-1	Acetone	16	U
75-15-0	Carbon disulfide	7.8	U
79-20-9	Methyl acetate	7.8	U
75-09-2	Methylene chloride	7.8	U
156-60-5	trans-1,2-Dichloroethene	7.8	U
1634-04-4	Methyl tert-butyl ether	7.8	U
75-34-3	1,1-Dichloroethane	7.8	U
156-59-2	cis-1,2-Dichloroethene	7.8	U
78-93-3	2-Butanone	16	U
74-97-5	Bromochloromethane	7.8	U
67-66-3	Chloroform	7.8	U
71-55-6	1,1,1-Trichloroethane	7.8	U
110-82-7	Cyclohexane	7.8	U
56-23-5	Carbon tetrachloride	7.8	U
71-43-2	Benzene	64	
107-06-2	1,2-Dichloroethane	7.8	U
123-91-1	1,4-Dioxane	160	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

SOM01.2 (6/2007)

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AC6MS

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1270-01CMS

Sample wt/vol: 4.70 (g/mL) G Lab File ID: V505136.D

Level: (TRACE/LOW/MED) LOW Date Received: 07/26/2013

% Moisture: not dec. 31 Date Analyzed: 07/30/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	67	
108-87-2	Methylcyclohexane	7.8	U
78-87-5	1,2-Dichloropropane	7.8	U
75-27-4	Bromodichloromethane	7.8	U
10061-01-5	cis-1,3-Dichloropropene	7.8	U
108-10-1	4-Methyl-2-pentanone	16	U
108-88-3	Toluene	72	
10061-02-6	trans-1,3-Dichloropropene	7.8	U
79-00-5	1,1,2-Trichloroethane	7.8	U
127-18-4	Tetrachloroethene	7.8	U
591-78-6	2-Hexanone	16	U
124-48-1	Dibromochloromethane	7.8	U
106-93-4	1,2-Dibromoethane	7.8	U
108-90-7	Chlorobenzene	70	
100-41-4	Ethylbenzene	7.8	U
179601-23-1	m,p-Xylene	7.8	U
95-47-6	o-Xylene	7.8	U
100-42-5	Styrene	7.8	U
75-25-2	Bromoform	7.8	U
98-82-8	Isopropylbenzene	7.8	U
79-34-5	1,1,2,2-Tetrachloroethane	7.8	U
541-73-1	1,3-Dichlorobenzene	7.8	U
106-46-7	1,4-Dichlorobenzene	7.8	U
95-50-1	1,2-Dichlorobenzene	7.8	U
96-12-8	1,2-Dibromo-3-chloropropane	7.8	U
120-82-1	1,2,4-Trichlorobenzene	7.8	U
87-61-6	1,2,3-Trichlorobenzene	7.8	U

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AC6MSD

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1270-01CMSD

Sample wt/vol: 5.20 (g/mL) G Lab File ID: V505137.D

Level: (TRACE/LOW/MED) LOW Date Received: 07/26/2013

% Moisture: not dec. 31 Date Analyzed: 07/30/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	7.0	U
74-87-3	Chloromethane	7.0	U
75-01-4	Vinyl chloride	7.0	U
74-83-9	Bromomethane	7.0	U
75-00-3	Chloroethane	7.0	U
75-69-4	Trichlorofluoromethane	7.0	U
75-35-4	1,1-Dichloroethene	45	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	7.0	U
67-64-1	Acetone	14	U
75-15-0	Carbon disulfide	7.0	U
79-20-9	Methyl acetate	7.0	U
75-09-2	Methylene chloride	7.0	U
156-60-5	trans-1,2-Dichloroethene	7.0	U
1634-04-4	Methyl tert-butyl ether	7.0	U
75-34-3	1,1-Dichloroethane	7.0	U
156-59-2	cis-1,2-Dichloroethene	7.0	U
78-93-3	2-Butanone	14	U
74-97-5	Bromochloromethane	7.0	U
67-66-3	Chloroform	7.0	U
71-55-6	1,1,1-Trichloroethane	7.0	U
110-82-7	Cyclohexane	7.0	U
56-23-5	Carbon tetrachloride	7.0	U
71-43-2	Benzene	65	
107-06-2	1,2-Dichloroethane	7.0	U
123-91-1	1,4-Dioxane	140	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

SOM01.2 (6/2007)

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AC6MSD

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM

Case No.: 43638

Mod. Ref No.:

SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1270-01CMSD

Sample wt/vol: 5.20 (g/mL) G

Lab File ID: V505137.D

Level: (TRACE/LOW/MED) LOW

Date Received: 07/26/2013

% Moisture: not dec. 31

Date Analyzed: 07/30/2013

GC Column: DB-624

ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	62	
108-87-2	Methylcyclohexane	7.0	U
78-87-5	1,2-Dichloropropane	7.0	U
75-27-4	Bromodichloromethane	7.0	U
10061-01-5	cis-1,3-Dichloropropene	7.0	U
108-10-1	4-Methyl-2-pentanone	14	U
108-88-3	Toluene	64	
10061-02-6	trans-1,3-Dichloropropene	7.0	U
79-00-5	1,1,2-Trichloroethane	7.0	U
127-18-4	Tetrachloroethene	7.0	U
591-78-6	2-Hexanone	14	U
124-48-1	Dibromochloromethane	7.0	U
106-93-4	1,2-Dibromoethane	7.0	U
108-90-7	Chlorobenzene	64	
100-41-4	Ethylbenzene	7.0	U
179601-23-1	m,p-Xylene	7.0	U
95-47-6	o-Xylene	7.0	U
100-42-5	Styrene	7.0	U
75-25-2	Bromoform	7.0	U
98-82-8	Isopropylbenzene	7.0	U
79-34-5	1,1,2,2-Tetrachloroethane	7.0	U
541-73-1	1,3-Dichlorobenzene	7.0	U
106-46-7	1,4-Dichlorobenzene	7.0	U
95-50-1	1,2-Dichlorobenzene	7.0	U
96-12-8	1,2-Dibromo-3-chloropropane	7.0	U
120-82-1	1,2,4-Trichlorobenzene	7.0	U
87-61-6	1,2,3-Trichlorobenzene	7.0	U

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AC7

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1270-02C

Sample wt/vol: 4.50 (g/mL) G Lab File ID: V505138.D

Level: (TRACE/LOW/MED) LOW Date Received: 07/26/2013

% Moisture: not dec. 25 Date Analyzed: 07/30/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	7.4	U
74-87-3	Chloromethane	7.4	U
75-01-4	Vinyl chloride	7.4	U
74-83-9	Bromomethane	7.4	U
75-00-3	Chloroethane	7.4	U
75-69-4	Trichlorofluoromethane	7.4	U
75-35-4	1,1-Dichloroethene	7.4	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	7.4	U
67-64-1	Acetone	15	U
75-15-0	Carbon disulfide	7.4	U
79-20-9	Methyl acetate	7.4	U
75-09-2	Methylene chloride	7.4	U
156-60-5	trans-1,2-Dichloroethene	7.4	U
1634-04-4	Methyl tert-butyl ether	7.4	U
75-34-3	1,1-Dichloroethane	7.4	U
156-59-2	cis-1,2-Dichloroethene	7.4	U
78-93-3	2-Butanone	15	U
74-97-5	Bromochloromethane	7.4	U
67-66-3	Chloroform	7.4	U
71-55-6	1,1,1-Trichloroethane	7.4	U
110-82-7	Cyclohexane	7.4	U
56-23-5	Carbon tetrachloride	7.4	U
71-43-2	Benzene	7.4	U
107-06-2	1,2-Dichloroethane	7.4	U
123-91-1	1,4-Dioxane	150	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AC7

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1270-02C

Sample wt/vol: 4.50 (g/mL) G Lab File ID: V505138.D

Level: (TRACE/LOW/MED) LOW Date Received: 07/26/2013

% Moisture: not dec. 25 Date Analyzed: 07/30/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	7.4	U
108-87-2	Methylcyclohexane	7.4	U
78-87-5	1,2-Dichloropropane	7.4	U
75-27-4	Bromodichloromethane	7.4	U
10061-01-5	cis-1,3-Dichloropropene	7.4	U
108-10-1	4-Methyl-2-pentanone	15	U
108-88-3	Toluene	7.4	U
10061-02-6	trans-1,3-Dichloropropene	7.4	U
79-00-5	1,1,2-Trichloroethane	7.4	U
127-18-4	Tetrachloroethene	7.4	U
591-78-6	2-Hexanone	15	U
124-48-1	Dibromochloromethane	7.4	U
106-93-4	1,2-Dibromoethane	7.4	U
108-90-7	Chlorobenzene	7.4	U
100-41-4	Ethylbenzene	7.4	U
179601-23-1	m,p-Xylene	7.4	U
95-47-6	o-Xylene	7.4	U
100-42-5	Styrene	7.4	U
75-25-2	Bromoform	7.4	U
98-82-8	Isopropylbenzene	7.4	U
79-34-5	1,1,2,2-Tetrachloroethane	7.4	U
541-73-1	1,3-Dichlorobenzene	7.4	U
106-46-7	1,4-Dichlorobenzene	7.4	U
95-50-1	1,2-Dichlorobenzene	7.4	U
96-12-8	1,2-Dibromo-3-chloropropane	7.4	U
120-82-1	1,2,4-Trichlorobenzene	7.4	U
87-61-6	1,2,3-Trichlorobenzene	7.4	U

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
E0AC7

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1270-02C

Sample wt/vol: 4.50 (g/mL) G Lab File ID: V505138.D

Level: (TRACE or LOW/MED) LOW Date Received: 07/26/2013

% Moisture: not dec. 25 Date Analyzed: 07/30/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

SOM01.2 (6/2007)

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AC8

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1270-03C

Sample wt/vol: 4.50 (g/mL) G Lab File ID: V505139.D

Level: (TRACE/LOW/MED) LOW Date Received: 07/26/2013

% Moisture: not dec. 5.2 Date Analyzed: 07/30/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	5.9	U
74-87-3	Chloromethane	5.9	U
75-01-4	Vinyl chloride	5.9	U
74-83-9	Bromomethane	5.9	U
75-00-3	Chloroethane	5.9	U
75-69-4	Trichlorofluoromethane	5.9	U
75-35-4	1,1-Dichloroethene	5.9	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.9	U
67-64-1	Acetone	12	U
75-15-0	Carbon disulfide	5.9	U
79-20-9	Methyl acetate	5.9	U
75-09-2	Methylene chloride	5.9	U
156-60-5	trans-1,2-Dichloroethene	5.9	U
1634-04-4	Methyl tert-butyl ether	5.9	U
75-34-3	1,1-Dichloroethane	5.9	U
156-59-2	cis-1,2-Dichloroethene	5.9	U
78-93-3	2-Butanone	12	U
74-97-5	Bromochloromethane	5.9	U
67-66-3	Chloroform	5.9	U
71-55-6	1,1,1-Trichloroethane	5.9	U
110-82-7	Cyclohexane	5.9	U
56-23-5	Carbon tetrachloride	5.9	U
71-43-2	Benzene	5.9	U
107-06-2	1,2-Dichloroethane	5.9	U
123-91-1	1,4-Dioxane	120	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

SOM01.2 (6/2007)

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AC8

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1270-03C

Sample wt/vol: 4.50 (g/mL) G Lab File ID: V505139.D

Level: (TRACE/LOW/MED) LOW Date Received: 07/26/2013

% Moisture: not dec. 5.2 Date Analyzed: 07/30/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	5.9	U
108-87-2	Methylcyclohexane	5.9	U
78-87-5	1,2-Dichloropropane	5.9	U
75-27-4	Bromodichloromethane	5.9	U
10061-01-5	cis-1,3-Dichloropropene	5.9	U
108-10-1	4-Methyl-2-pentanone	12	U
108-88-3	Toluene	5.9	U
10061-02-6	trans-1,3-Dichloropropene	5.9	U
79-00-5	1,1,2-Trichloroethane	5.9	U
127-18-4	Tetrachloroethene	5.9	U
591-78-6	2-Hexanone	12	U
124-48-1	Dibromochloromethane	5.9	U
106-93-4	1,2-Dibromoethane	5.9	U
108-90-7	Chlorobenzene	5.9	U
100-41-4	Ethylbenzene	5.9	U
179601-23-1	m,p-Xylene	5.9	U
95-47-6	o-Xylene	5.9	U
100-42-5	Styrene	5.9	U
75-25-2	Bromoform	5.9	U
98-82-8	Isopropylbenzene	5.9	U
79-34-5	1,1,2,2-Tetrachloroethane	5.9	U
541-73-1	1,3-Dichlorobenzene	5.9	U
106-46-7	1,4-Dichlorobenzene	5.9	U
95-50-1	1,2-Dichlorobenzene	5.9	U
96-12-8	1,2-Dibromo-3-chloropropane	5.9	U
120-82-1	1,2,4-Trichlorobenzene	5.9	U
87-61-6	1,2,3-Trichlorobenzene	5.9	U

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
E0AC8

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1270-03C

Sample wt/vol: 4.50 (g/mL) G Lab File ID: V505139.D

Level: (TRACE or LOW/MED) LOW Date Received: 07/26/2013

% Moisture: not dec. 5.2 Date Analyzed: 07/30/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

SOM01.2 (6/2007)

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AC9

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1270-04C

Sample wt/vol: 4.10 (g/mL) G Lab File ID: V505140.D

Level: (TRACE/LOW/MED) LOW Date Received: 07/26/2013

% Moisture: not dec. 26 Date Analyzed: 07/30/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	8.3	U
74-87-3	Chloromethane	8.3	U
75-01-4	Vinyl chloride	8.3	U
74-83-9	Bromomethane	8.3	U
75-00-3	Chloroethane	8.3	U
75-69-4	Trichlorofluoromethane	8.3	U
75-35-4	1,1-Dichloroethene	8.3	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	8.3	U
67-64-1	Acetone	17	U
75-15-0	Carbon disulfide	8.3	U
79-20-9	Methyl acetate	8.3	U
75-09-2	Methylene chloride	8.3	U
156-60-5	trans-1,2-Dichloroethene	8.3	U
1634-04-4	Methyl tert-butyl ether	8.3	U
75-34-3	1,1-Dichloroethane	8.3	U
156-59-2	cis-1,2-Dichloroethene	8.3	U
78-93-3	2-Butanone	17	U
74-97-5	Bromochloromethane	8.3	U
67-66-3	Chloroform	8.3	U
71-55-6	1,1,1-Trichloroethane	8.3	U
110-82-7	Cyclohexane	8.3	U
56-23-5	Carbon tetrachloride	8.3	U
71-43-2	Benzene	8.3	U
107-06-2	1,2-Dichloroethane	8.3	U
123-91-1	1,4-Dioxane	170	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AC9

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1270-04C

Sample wt/vol: 4.10 (g/mL) G Lab File ID: V505140.D

Level: (TRACE/LOW/MED) LOW Date Received: 07/26/2013

% Moisture: not dec. 26 Date Analyzed: 07/30/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	8.3	U
108-87-2	Methylcyclohexane	8.3	U
78-87-5	1,2-Dichloropropane	8.3	U
75-27-4	Bromodichloromethane	8.3	U
10061-01-5	cis-1,3-Dichloropropene	8.3	U
108-10-1	4-Methyl-2-pentanone	17	U
108-88-3	Toluene	8.3	U
10061-02-6	trans-1,3-Dichloropropene	8.3	U
79-00-5	1,1,2-Trichloroethane	8.3	U
127-18-4	Tetrachloroethene	8.3	U
591-78-6	2-Hexanone	17	U
124-48-1	Dibromochloromethane	8.3	U
106-93-4	1,2-Dibromoethane	8.3	U
108-90-7	Chlorobenzene	8.3	U
100-41-4	Ethylbenzene	8.3	U
179601-23-1	m,p-Xylene	8.3	U
95-47-6	o-Xylene	8.3	U
100-42-5	Styrene	8.3	U
75-25-2	Bromoform	8.3	U
98-82-8	Isopropylbenzene	8.3	U
79-34-5	1,1,2,2-Tetrachloroethane	8.3	U
541-73-1	1,3-Dichlorobenzene	8.3	U
106-46-7	1,4-Dichlorobenzene	8.3	U
95-50-1	1,2-Dichlorobenzene	8.3	U
96-12-8	1,2-Dibromo-3-chloropropane	8.3	U
120-82-1	1,2,4-Trichlorobenzene	8.3	U
87-61-6	1,2,3-Trichlorobenzene	8.3	U

SOM01.2 (6/2007)

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E0AC9

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1270-04C

Sample wt/vol: 4.10 (g/mL) G Lab File ID: V505140.D

Level: (TRACE or LOW/MED) LOW Date Received: 07/26/2013

% Moisture: not dec. 26 Date Analyzed: 07/30/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

SOM01.2 (6/2007)

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AD0

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1270-05C

Sample wt/vol: 4.20 (g/mL) G Lab File ID: V505141.D

Level: (TRACE/LOW/MED) LOW Date Received: 07/26/2013

% Moisture: not dec. 18 Date Analyzed: 07/30/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	7.3	U
74-87-3	Chloromethane	7.3	U
75-01-4	Vinyl chloride	7.3	U
74-83-9	Bromomethane	7.3	U
75-00-3	Chloroethane	7.3	U
75-69-4	Trichlorofluoromethane	7.3	U
75-35-4	1,1-Dichloroethene	7.3	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	7.3	U
67-64-1	Acetone	6.7	J
75-15-0	Carbon disulfide	7.3	U
79-20-9	Methyl acetate	7.3	U
75-09-2	Methylene chloride	7.3	U
156-60-5	trans-1,2-Dichloroethene	7.3	U
1634-04-4	Methyl tert-butyl ether	7.3	U
75-34-3	1,1-Dichloroethane	7.3	U
156-59-2	cis-1,2-Dichloroethene	7.3	U
78-93-3	2-Butanone	15	U
74-97-5	Bromochloromethane	7.3	U
67-66-3	Chloroform	7.3	U
71-55-6	1,1,1-Trichloroethane	7.3	U
110-82-7	Cyclohexane	7.3	U
56-23-5	Carbon tetrachloride	7.3	U
71-43-2	Benzene	7.3	U
107-06-2	1,2-Dichloroethane	7.3	U
123-91-1	1,4-Dioxane	150	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AD0

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1270-05C

Sample wt/vol: 4.20 (g/mL) G Lab File ID: V505141.D

Level: (TRACE/LOW/MED) LOW Date Received: 07/26/2013

% Moisture: not dec. 18 Date Analyzed: 07/30/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	7.3	U
108-87-2	Methylcyclohexane	7.3	U
78-87-5	1,2-Dichloropropane	7.3	U
75-27-4	Bromodichloromethane	7.3	U
10061-01-5	cis-1,3-Dichloropropene	7.3	U
108-10-1	4-Methyl-2-pentanone	15	U
108-88-3	Toluene	7.3	U
10061-02-6	trans-1,3-Dichloropropene	7.3	U
79-00-5	1,1,2-Trichloroethane	7.3	U
127-18-4	Tetrachloroethene	7.3	U
591-78-6	2-Hexanone	15	U
124-48-1	Dibromochloromethane	7.3	U
106-93-4	1,2-Dibromoethane	7.3	U
108-90-7	Chlorobenzene	7.3	U
100-41-4	Ethylbenzene	7.3	U
179601-23-1	m,p-Xylene	7.3	U
95-47-6	o-Xylene	7.3	U
100-42-5	Styrene	7.3	U
75-25-2	Bromoform	7.3	U
98-82-8	Isopropylbenzene	7.3	U
79-34-5	1,1,2,2-Tetrachloroethane	7.3	U
541-73-1	1,3-Dichlorobenzene	7.3	U
106-46-7	1,4-Dichlorobenzene	7.3	U
95-50-1	1,2-Dichlorobenzene	7.3	U
96-12-8	1,2-Dibromo-3-chloropropane	7.3	U
120-82-1	1,2,4-Trichlorobenzene	7.3	U
87-61-6	1,2,3-Trichlorobenzene	7.3	U

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
E0AD0

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1270-05C

Sample wt/vol: 4.20 (g/mL) G Lab File ID: V5O5141.D

Level: (TRACE or LOW/MED) LOW Date Received: 07/26/2013

% Moisture: not dec. 18 Date Analyzed: 07/30/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E9667961	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

SOM01.2 (6/2007)

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AD1

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1270-06C

Sample wt/vol: 4.20 (g/mL) G Lab File ID: V505142.D

Level: (TRACE/LOW/MED) LOW Date Received: 07/26/2013

% Moisture: not dec. 51 Date Analyzed: 07/30/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	12	U
74-87-3	Chloromethane	12	U
75-01-4	Vinyl chloride	12	U
74-83-9	Bromomethane	12	U
75-00-3	Chloroethane	12	U
75-69-4	Trichlorofluoromethane	12	U
75-35-4	1,1-Dichloroethene	12	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	12	U
67-64-1	Acetone	24	U
75-15-0	Carbon disulfide	12	U
79-20-9	Methyl acetate	12	U
75-09-2	Methylene chloride	12	U
156-60-5	trans-1,2-Dichloroethene	12	U
1634-04-4	Methyl tert-butyl ether	12	U
75-34-3	1,1-Dichloroethane	12	U
156-59-2	cis-1,2-Dichloroethene	12	U
78-93-3	2-Butanone	24	U
74-97-5	Bromochloromethane	12	U
67-66-3	Chloroform	12	U
71-55-6	1,1,1-Trichloroethane	12	U
110-82-7	Cyclohexane	12	U
56-23-5	Carbon tetrachloride	12	U
71-43-2	Benzene	12	U
107-06-2	1,2-Dichloroethane	12	U
123-91-1	1,4-Dioxane	240	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AD1

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1270-06C

Sample wt/vol: 4.20 (g/mL) G Lab File ID: V505142.D

Level: (TRACE/LOW/MED) LOW Date Received: 07/26/2013

% Moisture: not dec. 51 Date Analyzed: 07/30/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	12	U
108-87-2	Methylcyclohexane	12	U
78-87-5	1,2-Dichloropropane	12	U
75-27-4	Bromodichloromethane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
108-10-1	4-Methyl-2-pentanone	24	U
108-88-3	Toluene	12	U
10061-02-6	trans-1,3-Dichloropropene	12	U
79-00-5	1,1,2-Trichloroethane	12	U
127-18-4	Tetrachloroethene	12	U
591-78-6	2-Hexanone	24	U
124-48-1	Dibromochloromethane	12	U
106-93-4	1,2-Dibromoethane	12	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
179601-23-1	m,p-Xylene	12	U
95-47-6	o-Xylene	12	U
100-42-5	Styrene	12	U
75-25-2	Bromoform	12	U
98-82-8	Isopropylbenzene	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
541-73-1	1,3-Dichlorobenzene	12	U
106-46-7	1,4-Dichlorobenzene	12	U
95-50-1	1,2-Dichlorobenzene	12	U
96-12-8	1,2-Dibromo-3-chloropropane	12	U
120-82-1	1,2,4-Trichlorobenzene	12	U
87-61-6	1,2,3-Trichlorobenzene	12	U

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
E0AD1

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1270-06C

Sample wt/vol: 4.20 (g/mL) G Lab File ID: V505142.D

Level: (TRACE or LOW/MED) LOW Date Received: 07/26/2013

% Moisture: not dec. 51 Date Analyzed: 07/30/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AD2

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1270-07C

Sample wt/vol: 4.20 (g/mL) G Lab File ID: V505143.D

Level: (TRACE/LOW/MED) LOW Date Received: 07/26/2013

% Moisture: not dec. 41 Date Analyzed: 07/31/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	10	U
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
75-35-4	1,1-Dichloroethene	10	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	10	U
67-64-1	Acetone	20	U
75-15-0	Carbon disulfide	10	U
79-20-9	Methyl acetate	10	U
75-09-2	Methylene chloride	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
1634-04-4	Methyl tert-butyl ether	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone	20	U
74-97-5	Bromochloromethane	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
110-82-7	Cyclohexane	10	U
56-23-5	Carbon tetrachloride	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
123-91-1	1,4-Dioxane	200	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

SOM01.2 (6/2007)

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AD2

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1270-07C

Sample wt/vol: 4.20 (g/mL) G Lab File ID: V505143.D

Level: (TRACE/LOW/MED) LOW Date Received: 07/26/2013

% Moisture: not dec. 41 Date Analyzed: 07/31/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	10	U
108-87-2	Methylcyclohexane	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	20	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	20	U
124-48-1	Dibromochloromethane	10	U
106-93-4	1,2-Dibromoethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
179601-23-1	m,p-Xylene	10	U
95-47-6	o-Xylene	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
98-82-8	Isopropylbenzene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
87-61-6	1,2,3-Trichlorobenzene	10	U

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E0AD2

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1270-07C

Sample wt/vol: 4.20 (g/mL) G Lab File ID: V505143.D

Level: (TRACE or LOW/MED) LOW Date Received: 07/26/2013

% Moisture: not dec. 41 Date Analyzed: 07/31/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

SOM01.2 (6/2007)

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AD3

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1270-08C

Sample wt/vol: 3.90 (g/mL) G Lab File ID: V5O5144.D

Level: (TRACE/LOW/MED) LOW Date Received: 07/26/2013

% Moisture: not dec. 48 Date Analyzed: 07/31/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	12	U
74-87-3	Chloromethane	12	U
75-01-4	Vinyl chloride	12	U
74-83-9	Bromomethane	12	U
75-00-3	Chloroethane	12	U
75-69-4	Trichlorofluoromethane	12	U
75-35-4	1,1-Dichloroethene	12	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	12	U
67-64-1	Acetone	25	U
75-15-0	Carbon disulfide	12	U
79-20-9	Methyl acetate	12	U
75-09-2	Methylene chloride	12	U
156-60-5	trans-1,2-Dichloroethene	12	U
1634-04-4	Methyl tert-butyl ether	12	U
75-34-3	1,1-Dichloroethane	12	U
156-59-2	cis-1,2-Dichloroethene	12	U
78-93-3	2-Butanone	25	U
74-97-5	Bromochloromethane	12	U
67-66-3	Chloroform	12	U
71-55-6	1,1,1-Trichloroethane	12	U
110-82-7	Cyclohexane	12	U
56-23-5	Carbon tetrachloride	12	U
71-43-2	Benzene	12	U
107-06-2	1,2-Dichloroethane	12	U
123-91-1	1,4-Dioxane	250	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

SOM01.2 (6/2007)

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AD3

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1270-08C

Sample wt/vol: 3.90 (g/mL) G Lab File ID: V5O5144.D

Level: (TRACE/LOW/MED) LOW Date Received: 07/26/2013

% Moisture: not dec. 48 Date Analyzed: 07/31/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	12	U
108-87-2	Methylcyclohexane	12	U
78-87-5	1,2-Dichloropropane	12	U
75-27-4	Bromodichloromethane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
108-10-1	4-Methyl-2-pentanone	25	U
108-88-3	Toluene	12	U
10061-02-6	trans-1,3-Dichloropropene	12	U
79-00-5	1,1,2-Trichloroethane	12	U
127-18-4	Tetrachloroethene	12	U
591-78-6	2-Hexanone	25	U
124-48-1	Dibromochloromethane	12	U
106-93-4	1,2-Dibromoethane	12	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
179601-23-1	m,p-Xylene	12	U
95-47-6	o-Xylene	12	U
100-42-5	Styrene	12	U
75-25-2	Bromoform	12	U
98-82-8	Isopropylbenzene	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
541-73-1	1,3-Dichlorobenzene	12	U
106-46-7	1,4-Dichlorobenzene	12	U
95-50-1	1,2-Dichlorobenzene	12	U
96-12-8	1,2-Dibromo-3-chloropropane	12	U
120-82-1	1,2,4-Trichlorobenzene	12	U
87-61-6	1,2,3-Trichlorobenzene	12	U

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
E0AD3

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1270-08C

Sample wt/vol: 3.90 (g/mL) G Lab File ID: V505144.D

Level: (TRACE or LOW/MED) LOW Date Received: 07/26/2013

% Moisture: not dec. 48 Date Analyzed: 07/31/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E96679E[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

SOM01.2 (6/2007)

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKV5

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM

Case No.: 43638

Mod. Ref No.:

SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: MB-72915

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: V505132.D

Level: (TRACE/LOW/MED) LOW

Date Received:

% Moisture: not dec.

Date Analyzed: 07/30/2013

GC Column: DB-624

ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	5.0	U
74-87-3	Chloromethane	5.0	U
75-01-4	Vinyl chloride	5.0	U
74-83-9	Bromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U
67-64-1	Acetone	10	U
75-15-0	Carbon disulfide	5.0	U
79-20-9	Methyl acetate	5.0	U
75-09-2	Methylene chloride	5.0	U
156-60-5	trans-1,2-Dichloroethene	5.0	U
1634-04-4	Methyl tert-butyl ether	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	U
78-93-3	2-Butanone	10	U
74-97-5	Bromochloromethane	5.0	U
67-66-3	Chloroform	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
110-82-7	Cyclohexane	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
71-43-2	Benzene	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
123-91-1	1,4-Dioxane	100	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

SOM01.2 (6/2007)

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKV5

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: MB-72915

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V505132.D

Level: (TRACE/LOW/MED) LOW Date Received:

% Moisture: not dec. Date Analyzed: 07/30/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	5.0	U
108-87-2	Methylcyclohexane	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
179601-23-1	m,p-Xylene	5.0	U
95-47-6	o-Xylene	5.0	U
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
98-82-8	Isopropylbenzene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
VBLKV5

Lab Name: MITKEM LABORATORIES
Contract: EP-W-11-033
Lab Code: MITKEM
Case No.: 43638
Mod. Ref No.:
SDG No.: E0AC6
Matrix: (SOIL/SED/WATER) SOIL
Lab Sample ID: MB-72915
Sample wt/vol: 5.00 (g/mL) G
Lab File ID: V505132.D
Level: (TRACE or LOW/MED) LOW
Date Received:
% Moisture: not dec.
Date Analyzed: 07/30/2013
GC Column: DB-624
ID: 0.25 (mm)
Dilution Factor: 1.0
Soil Extract Volume: (uL)
Soil Aliquot Volume: (uL)
CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG
Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

SOM01.2 (6/2007)

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VHBLKV5

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: VHBLKV5

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V505155.D

Level: (TRACE/LOW/MED) LOW Date Received:

% Moisture: not dec. Date Analyzed: 07/31/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	5.0	U
74-87-3	Chloromethane	5.0	U
75-01-4	Vinyl chloride	5.0	U
74-83-9	Bromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U
67-64-1	Acetone	10	U
75-15-0	Carbon disulfide	5.0	U
79-20-9	Methyl acetate	5.0	U
75-09-2	Methylene chloride	5.0	U
156-60-5	trans-1,2-Dichloroethene	5.0	U
1634-04-4	Methyl tert-butyl ether	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	U
78-93-3	2-Butanone	10	U
74-97-5	Bromochloromethane	5.0	U
67-66-3	Chloroform	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
110-82-7	Cyclohexane	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
71-43-2	Benzene	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
123-91-1	1,4-Dioxane	100	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

SOM01.2 (6/2007)

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VHBLKV5

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: VHBLKV5

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V505155.D

Level: (TRACE/LOW/MED) LOW Date Received:

% Moisture: not dec. Date Analyzed: 07/31/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	5.0	U
108-87-2	Methylcyclohexane	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
179601-23-1	m,p-Xylene	5.0	U
95-47-6	o-Xylene	5.0	U
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
98-82-8	Isopropylbenzene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VHBLKV5

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: VHBLKV5

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V505155.D

Level: (TRACE or LOW/MED) LOW Date Received:

% Moisture: not dec. Date Analyzed: 07/31/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

SOM01.2 (6/2007)

2J - FORM II SV-3

SOIL SEMIVOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Level: (LOW/MED) LOW

	EPA SAMPLE NO.	SDMC1 (PHL) #	SDMC2 (BCE) #	SDMC3 (2CP) #	SDMC4 (4MP) #	SDMC5 (NBZ) #	SDMC6 (2NP) #	SDMC7 (DCP) #	SDMC8 (4CA) #
01	SBLK4U	76	80	81	78	75	77	74	34
02	E0AC6	54	59	58	59	61	59	56	11
03	E0AC6MS	58	59	57	56	56	57	55	8
04	E0AC6MSD	61	62	59	63	62	62	60	12
05	E0AC7	57	59	60	58	51	58	54	16
06	E0AC8	53	57	55	56	56	53	50	17
07	E0AC9	66	63	62	63	66	59	60	9
08	E0AD0	54	61	63	59	54	55	55	10
09	E0AD1	61	59	56	54	64	62	59	10
10	E0AD2	72	69	67	71	69	67	66	10
11	E0AD3	62	56	57	57	57	58	56	12

			QC LIMITS
SDMC1	(PHL)	= Phenol-d5	(17-103)
SDMC2	(BCE)	= Bis(2-chloroethyl)ether-d8	(12-98)
SDMC3	(2CP)	= 2-Chlorophenol-d4	(13-101)
SDMC4	(4MP)	= 4-Methylphenol-d8	(8-100)
SDMC5	(NBZ)	= Nitrobenzene-d5	(16-103)
SDMC6	(2NP)	= 2-Nitrophenol-d4	(16-104)
SDMC7	(DCP)	= 2,4-Dichlorophenol-d3	(23-104)
SDMC8	(4CA)	= 4-Chloroaniline-d4	(1-145)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D DMC diluted out

2K - FORM II SV-4

SOIL SEMIVOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Level: (LOW/MED) LOW

	EPA SAMPLE NO.	SDMC9 (DMP) #	SDMC10 (ACY) #	SDMC11 (4NP) #	SDMC12 (FLR) #	SDMC13 (NMP) #	SDMC14 (ANC) #	SDMC15 (PYR) #	SDMC16 (BAP) #	TOT OUT
01	SBLK4U	82	80	85	82	61	78	70	86	0
02	E0AC6	57	55	56	57	42	55	53	56	0
03	E0AC6MS	65	60	73	63	49	58	54	62	0
04	E0AC6MSD	65	61	62	64	45	60	61	61	0
05	E0AC7	55	55	60	59	42	54	53	63	0
06	E0AC8	59	53	62	57	41	51	52	57	0
07	E0AC9	70	66	75	68	49	59	57	65	0
08	E0AD0	58	55	58	60	43	56	52	58	0
09	E0AD1	67	61	64	66	49	64	58	59	0
10	E0AD2	72	66	70	71	59	71	63	71	0
11	E0AD3	67	62	68	65	49	65	61	61	0

			QC LIMITS
SDMC9	(DMP)	= Dimethylphthalate-d6	(43-111)
SDMC10	(ACY)	= Acenaphthylene-d8	(20-97)
SDMC11	(4NP)	= 4-Nitrophenol-d4	(16-166)
SDMC12	(FLR)	= Fluorene-d10	(40-108)
SDMC13	(NMP)	= 4,6-Dinitro-2-methylphenol-d2	(1-121)
SDMC14	(ANC)	= Anthracene-d10	(22-98)
SDMC15	(PYR)	= Pyrene-d10	(51-120)
SDMC16	(BAP)	= Benzo(a)pyrene-d12	(43-111)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D DMC diluted out

3D - FORM III SV-2

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: _____ SDG No.: E0AC6

Matrix Spike - EPA Sample No.: E0AC6

COMPOUND	SPIKE ADDED (µg/Kg)	SAMPLE CONCENTRATION (µg/Kg)	MS CONCENTRATION (µg/Kg)	MS %REC	#	QC. LIMITS REC.
Phenol	1917.2120	0.0000	1076.4228	56		26-90
2-Chlorophenol	1917.2120	0.0000	1100.3809	57		25-102
N-Nitroso-di-n-propylamine	1917.2120	0.0000	884.7199	46		41-126
4-Chloro-3-methylphenol	1917.2120	0.0000	1085.5630	57		26-103
Acenaphthene	1917.2120	0.0000	975.8871	51		31-137
4-Nitrophenol	1917.2120	0.0000	1312.4055	68		11-114
2,4-Dinitrotoluene	1917.2120	0.0000	1101.1543	57		28-89
Pentachlorophenol	1917.2120	0.0000	1412.7541	74		17-109
Pyrene	1917.2120	0.0000	617.1592	32	*	35-142

COMPOUND	SPIKE ADDED (µg/Kg)	MSD CONCENTRATION (µg/Kg)	MSD %REC	#	%RPD	#	QC LIMITS RPD	QC LIMITS REC.
Phenol	1910.9261	1120.1145	59		4		0-35	26-90
2-Chlorophenol	1910.9261	1144.9158	60		4		0-50	25-102
N-Nitroso-di-n-propylamine	1910.9261	923.5726	48		5		0-38	41-126
4-Chloro-3-methylphenol	1910.9261	1188.0400	62		9		0-33	26-103
Acenaphthene	1910.9261	1029.9439	54		6		0-19	31-137
4-Nitrophenol	1910.9261	1301.5198	68		1		0-50	11-114
2,4-Dinitrotoluene	1910.9261	1006.2056	53		9		0-47	28-89
Pentachlorophenol	1910.9261	1497.6477	78		6		0-47	17-109
Pyrene	1910.9261	694.3167	36		12		0-36	35-142

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 9 outside limits

Spike Recovery: 1 out of 18 outside limits

COMMENTS: _____

SOM01.2 (6/2007)

4C - FORM IV SV

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK4U

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Lab File ID: S4F4644.D Lab Sample ID: MB-73022

Instrument ID: S4 Date Extracted: 08/02/2013

Matrix: (SOIL/SED/WATER) SOIL Date Analyzed: 08/06/2013

Level: (LOW/MED) LOW Time Analyzed: 17:16

Extraction: (Type) SONC GPC Cleanup: (Y/N) Y

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	E0AC6	M1270-01B	S4F4645.D	08/06/2013
02	E0AC6MS	M1270-01BMS	S4F4646.D	08/06/2013
03	E0AC6MSD	M1270-01BMSD	S4F4647.D	08/06/2013
04	E0AC7	M1270-02B	S4F4648.D	08/06/2013
05	E0AC8	M1270-03B	S4F4649.D	08/06/2013
06	E0AC9	M1270-04B	S4F4650.D	08/06/2013
07	E0AD0	M1270-05B	S4F4651.D	08/06/2013
08	E0AD1	M1270-06B	S4F4652.D	08/06/2013
09	E0AD2	M1270-07B	S4F4653.D	08/06/2013
10	E0AD3	M1270-08B	S4F4654.D	08/06/2013

COMMENTS:

8C - FORM VIII SV-1

SEMIVOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

GC Column: Rxi-5sil MS ID: 0.25 (mm) Init. Calib. Date(s): 07/25/2013 07/25/2013

EPA Sample No.(SSTD020##) SSTD0204U Date Analyzed: 08/06/2013

Lab File ID (Standard): S4F4642A.D Time Analyzed: 16:25

Instrument ID: S4

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	28896	3.51	105226	4.793	58002	6.832
	UPPER LIMIT	57792	4.01	210452	5.293	116004	7.332
	LOWER LIMIT	14448	3.01	52613	4.293	29001	6.332
	EPA SAMPLE NO.						
01	SBLK4U	26583	3.510	98028	4.793	52079	6.832
02	E0AC6	25836	3.510	93677	4.793	51159	6.832
03	E0AC6MS	25712	3.510	92801	4.793	46558	6.832
04	E0AC6MSD	26363	3.509	90959	4.793	48342	6.832
05	E0AC7	24610	3.509	94267	4.793	50467	6.832
06	E0AC8	23404	3.510	85778	4.793	45770	6.832
07	E0AC9	23753	3.510	88804	4.793	44084	6.832
08	E0AD0	24086	3.510	89841	4.793	48223	6.832
09	E0AD1	27250	3.510	93589	4.793	47941	6.832
10	E0AD2	24330	3.510	90090	4.793	48516	6.842
11	E0AD3	24733	3.510	93564	4.793	48645	6.832

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = 200% of internal standard area

AREA LOWER LIMIT = 50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.

8D - FORM VIII SV-2

SEMIVOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

EPA Sample No.(SSTD020##) SSTD0204U Date Analyzed: 08/06/2013

Lab File ID (Standard): S4F4642A.D Time Analyzed: 16:25

Instrument ID: S4 GC Column: Rxi-5sil MS ID: 0.25 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	107691	8.623	116143	11.821	119983	13.56
	UPPER LIMIT	215382	9.123	232286	12.321	239966	14.06
	LOWER LIMIT	53846	8.123	58072	11.321	59992	13.06
	EPA SAMPLE NO.						
01	SBLK4U	91305	8.623	91547	11.821	86976	13.560
02	E0AC6	86738	8.623	80325	11.821	82096	13.560
03	E0AC6MS	81359	8.623	81938	11.821	79010	13.560
04	E0AC6MSD	83577	8.622	75125	11.821	79922	13.560
05	E0AC7	88195	8.622	82235	11.821	78906	13.560
06	E0AC8	81462	8.623	76164	11.821	78078	13.560
07	E0AC9	81205	8.623	80679	11.821	79355	13.560
08	E0AD0	82997	8.623	80825	11.821	81501	13.560
09	E0AD1	80993	8.623	76902	11.821	78503	13.560
10	E0AD2	78080	8.623	76074	11.821	81708	13.560
11	E0AD3	86535	8.623	81402	11.821	91231	13.560

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = 200% of internal standard area

AREA LOWER LIMIT = 50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AC6

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1270-01B

Sample wt/vol: 30.3 (g/mL) G Lab File ID: S4F4645.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 31 Decanted: (Y/N) N Date Received: 07/26/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/06/2013

GPC Cleanup: (Y/N) Y pH: 7.3 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
100-52-7	Benzaldehyde	250	U
108-95-2	Phenol	250	U
111-44-4	Bis(2-chloroethyl)ether	250	U
95-57-8	2-Chlorophenol	250	U
95-48-7	2-Methylphenol	250	U
108-60-1	2,2'-Oxybis(1-chloropropane)	250	U
98-86-2	Acetophenone	250	U
106-44-5	4-Methylphenol	250	U
621-64-7	N-Nitroso-di-n-propylamine	250	U
67-72-1	Hexachloroethane	250	U
98-95-3	Nitrobenzene	250	U
78-59-1	Isophorone	250	U
88-75-5	2-Nitrophenol	250	U
105-67-9	2,4-Dimethylphenol	250	U
111-91-1	Bis(2-chloroethoxy)methane	250	U
120-83-2	2,4-Dichlorophenol	250	U
91-20-3	Naphthalene	250	U
106-47-8	4-Chloroaniline	250	U
87-68-3	Hexachlorobutadiene	250	U
105-60-2	Caprolactam	250	U
59-50-7	4-Chloro-3-methylphenol	250	U
91-57-6	2-Methylnaphthalene	250	U
77-47-4	Hexachlorocyclopentadiene	250	U
88-06-2	2,4,6-Trichlorophenol	250	U
95-95-4	2,4,5-Trichlorophenol	250	U
92-52-4	1,1'-Biphenyl	250	U
91-58-7	2-Chloronaphthalene	250	U
88-74-4	2-Nitroaniline	480	U
131-11-3	Dimethylphthalate	250	U
606-20-2	2,6-Dinitrotoluene	250	U
208-96-8	Acenaphthylene	250	U
99-09-2	3-Nitroaniline	480	U
83-32-9	Acenaphthene	250	U

SOM01.2 (6/2007)

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AC6

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1270-01B

Sample wt/vol: 30.3 (g/mL) G Lab File ID: S4F4645.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 31 Decanted: (Y/N) N Date Received: 07/26/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/06/2013

GPC Cleanup: (Y/N) Y pH: 7.3 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
51-28-5	2,4-Dinitrophenol	480	U
100-02-7	4-Nitrophenol	480	U
132-64-9	Dibenzofuran	250	U
121-14-2	2,4-Dinitrotoluene	250	U
84-66-2	Diethylphthalate	250	U
86-73-7	Fluorene	250	U
7005-72-3	4-Chlorophenyl-phenylether	250	U
100-01-6	4-Nitroaniline	480	U
534-52-1	4,6-Dinitro-2-methylphenol	480	U
86-30-6	N-Nitrosodiphenylamine 1	250	U
95-94-3	1,2,4,5-Tetrachlorobenzene	250	U
101-55-3	4-Bromophenyl-phenylether	250	U
118-74-1	Hexachlorobenzene	250	U
1912-24-9	Atrazine	250	U
87-86-5	Pentachlorophenol	480	U
85-01-8	Phenanthrene	250	U
120-12-7	Anthracene	250	U
86-74-8	Carbazole	250	U
84-74-2	Di-n-butylphthalate	250	U
206-44-0	Fluoranthene	250	U
129-00-0	Pyrene	250	U
85-68-7	Butylbenzylphthalate	250	U
91-94-1	3,3´-Dichlorobenzidine	250	U
56-55-3	Benzo(a)anthracene	250	U
218-01-9	Chrysene	250	U
117-81-7	Bis(2-ethylhexyl)phthalate	250	U
117-84-0	Di-n-octylphthalate	250	U
205-99-2	Benzo(b)fluoranthene	250	U
207-08-9	Benzo(k)fluoranthene	250	U
50-32-8	Benzo(a)pyrene	250	U
193-39-5	Indeno(1,2,3-cd)pyrene	250	U
53-70-3	Dibenzo(a,h)anthracene	250	U
191-24-2	Benzo(g,h,i)perylene	250	U
58-90-2	2,3,4,6-Tetrachlorophenol	250	U

(1) Cannot be separated from Diphenylamine

SOM01.2 (6/2007)

1K - FORM I SV-TIC
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
E0AC6

Lab Name: MITKEM LABORATORIES
Contract: EP-W-11-033
Lab Code: MITKEM
Case No.: 43638
Mod. Ref No.:
SDG No.: E0AC6
Matrix: (SOIL/SED/WATER) SOIL
Lab Sample ID: M1270-01B
Sample wt/vol: 30.3 (g/mL) G
Lab File ID: S4F4645.D
Level: (TRACE or LOW/MED) LOW
Extraction: (Type) SONC
% Moisture: 31
Decanted: (Y/N) N
Date Received: 07/26/2013
Concentrated Extract Volume: 500 (uL)
Date Extracted: 08/02/2013
Injection Volume: 2.0 (uL)
GPC Factor: 2.00
Date Analyzed: 08/06/2013
GPC Cleanup: (Y/N) Y
pH: 7.3
Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	2.909	320	J BU
02		Unknown-02	2.992	500	J BU
03		Unknown-03	3.023	630	J BU
04		Unknown-04	3.603	130	J
05		Unknown-05	3.706	150	J
06		Unknown-06	4.327	100	J
07		Unknown-07	5.342	KEEP 120	J BU
08		Unknown-08	5.528	110	J BU
09		Unknown-09	6.718	210	J
10		Unknown-10	7.971	150	J
11		Unknown-11	8.861	100	J
12		Unknown-12	12.463	200	J
13		Unknown-13	14.626	240	J
	E966796[2]	Total Alkanes	N/A		

[2]EPA-designated Registry Number.

ACH
8-22-13

SOM01.2 (6/2007)

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AC6MS

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1270-01BMS

Sample wt/vol: 30.4 (g/mL) G Lab File ID: S4F4646.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 31 Decanted: (Y/N) N Date Received: 07/26/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/06/2013

GPC Cleanup: (Y/N) Y pH: 7.3 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
100-52-7	Benzaldehyde	240	U
108-95-2	Phenol	1100	
111-44-4	Bis(2-chloroethyl)ether	240	U
95-57-8	2-Chlorophenol	1100	
95-48-7	2-Methylphenol	240	U
108-60-1	2,2'-Oxybis(1-chloropropane)	240	U
98-86-2	Acetophenone	240	U
106-44-5	4-Methylphenol	240	U
621-64-7	N-Nitroso-di-n-propylamine	880	
67-72-1	Hexachloroethane	240	U
98-95-3	Nitrobenzene	240	U
78-59-1	Isophorone	240	U
88-75-5	2-Nitrophenol	240	U
105-67-9	2,4-Dimethylphenol	240	U
111-91-1	Bis(2-chloroethoxy)methane	240	U
120-83-2	2,4-Dichlorophenol	240	U
91-20-3	Naphthalene	240	U
106-47-8	4-Chloroaniline	240	U
87-68-3	Hexachlorobutadiene	240	U
105-60-2	Caprolactam	240	U
59-50-7	4-Chloro-3-methylphenol	1100	
91-57-6	2-Methylnaphthalene	240	U
77-47-4	Hexachlorocyclopentadiene	240	U
88-06-2	2,4,6-Trichlorophenol	240	U
95-95-4	2,4,5-Trichlorophenol	240	U
92-52-4	1,1'-Biphenyl	240	U
91-58-7	2-Chloronaphthalene	240	U
88-74-4	2-Nitroaniline	470	U
131-11-3	Dimethylphthalate	240	U
606-20-2	2,6-Dinitrotoluene	240	U
208-96-8	Acenaphthylene	240	U
99-09-2	3-Nitroaniline	470	U
83-32-9	Acenaphthene	980	

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AC6MS

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1270-01BMS

Sample wt/vol: 30.4 (g/mL) G Lab File ID: S4F4646.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 31 Decanted: (Y/N) N Date Received: 07/26/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/06/2013

GPC Cleanup: (Y/N) Y pH: 7.3 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
51-28-5	2,4-Dinitrophenol	470	U
100-02-7	4-Nitrophenol	1300	
132-64-9	Dibenzofuran	240	U
121-14-2	2,4-Dinitrotoluene	1100	
84-66-2	Diethylphthalate	240	U
86-73-7	Fluorene	240	U
7005-72-3	4-Chlorophenyl-phenylether	240	U
100-01-6	4-Nitroaniline	470	U
534-52-1	4,6-Dinitro-2-methylphenol	470	U
86-30-6	N-Nitrosodiphenylamine 1	240	U
95-94-3	1,2,4,5-Tetrachlorobenzene	240	U
101-55-3	4-Bromophenyl-phenylether	240	U
118-74-1	Hexachlorobenzene	240	U
1912-24-9	Atrazine	240	U
87-86-5	Pentachlorophenol	1400	
85-01-8	Phenanthrene	240	U
120-12-7	Anthracene	240	U
86-74-8	Carbazole	240	U
84-74-2	Di-n-butylphthalate	240	U
206-44-0	Fluoranthene	240	U
129-00-0	Pyrene	620	
85-68-7	Butylbenzylphthalate	240	U
91-94-1	3,3'-Dichlorobenzidine	240	U
56-55-3	Benzo(a)anthracene	240	U
218-01-9	Chrysene	240	U
117-81-7	Bis(2-ethylhexyl)phthalate	240	U
117-84-0	Di-n-octylphthalate	240	U
205-99-2	Benzo(b)fluoranthene	240	U
207-08-9	Benzo(k)fluoranthene	240	U
50-32-8	Benzo(a)pyrene	240	U
193-39-5	Indeno(1,2,3-cd)pyrene	240	U
53-70-3	Dibenzo(a,h)anthracene	240	U
191-24-2	Benzo(g,h,i)perylene	240	U
58-90-2	2,3,4,6-Tetrachlorophenol	240	U

(1) Cannot be separated from Diphenylamine

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AC6MSD

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1270-01BMSD

Sample wt/vol: 30.5 (g/mL) G Lab File ID: S4F4647.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 31 Decanted: (Y/N) N Date Received: 07/26/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/06/2013

GPC Cleanup: (Y/N) Y pH: 7.3 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
100-52-7	Benzaldehyde	240	U
108-95-2	Phenol	1100	
111-44-4	Bis(2-chloroethyl)ether	240	U
95-57-8	2-Chlorophenol	1100	
95-48-7	2-Methylphenol	240	U
108-60-1	2,2'-Oxybis(1-chloropropane)	240	U
98-86-2	Acetophenone	240	U
106-44-5	4-Methylphenol	240	U
621-64-7	N-Nitroso-di-n-propylamine	920	
67-72-1	Hexachloroethane	240	U
98-95-3	Nitrobenzene	240	U
78-59-1	Isophorone	240	U
88-75-5	2-Nitrophenol	240	U
105-67-9	2,4-Dimethylphenol	240	U
111-91-1	Bis(2-chloroethoxy)methane	240	U
120-83-2	2,4-Dichlorophenol	240	U
91-20-3	Naphthalene	240	U
106-47-8	4-Chloroaniline	240	U
87-68-3	Hexachlorobutadiene	240	U
105-60-2	Caprolactam	240	U
59-50-7	4-Chloro-3-methylphenol	1200	
91-57-6	2-Methylnaphthalene	240	U
77-47-4	Hexachlorocyclopentadiene	240	U
88-06-2	2,4,6-Trichlorophenol	240	U
95-95-4	2,4,5-Trichlorophenol	240	U
92-52-4	1,1'-Biphenyl	240	U
91-58-7	2-Chloronaphthalene	240	U
88-74-4	2-Nitroaniline	470	U
131-11-3	Dimethylphthalate	240	U
606-20-2	2,6-Dinitrotoluene	240	U
208-96-8	Acenaphthylene	240	U
99-09-2	3-Nitroaniline	470	U
83-32-9	Acenaphthene	1000	

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AC6MSD

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1270-01BMSD

Sample wt/vol: 30.5 (g/mL) G Lab File ID: S4F4647.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 31 Decanted: (Y/N) N Date Received: 07/26/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/06/2013

GPC Cleanup: (Y/N) Y pH: 7.3 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
51-28-5	2,4-Dinitrophenol	470	U
100-02-7	4-Nitrophenol	1300	
132-64-9	Dibenzofuran	240	U
121-14-2	2,4-Dinitrotoluene	1000	
84-66-2	Diethylphthalate	240	U
86-73-7	Fluorene	240	U
7005-72-3	4-Chlorophenyl-phenylether	240	U
100-01-6	4-Nitroaniline	470	U
534-52-1	4,6-Dinitro-2-methylphenol	470	U
86-30-6	N-Nitrosodiphenylamine 1	240	U
95-94-3	1,2,4,5-Tetrachlorobenzene	240	U
101-55-3	4-Bromophenyl-phenylether	240	U
118-74-1	Hexachlorobenzene	240	U
1912-24-9	Atrazine	240	U
87-86-5	Pentachlorophenol	1500	
85-01-8	Phenanthrene	240	U
120-12-7	Anthracene	240	U
86-74-8	Carbazole	240	U
84-74-2	Di-n-butylphthalate	240	U
206-44-0	Fluoranthene	240	U
129-00-0	Pyrene	690	
85-68-7	Butylbenzylphthalate	240	U
91-94-1	3,3'-Dichlorobenzidine	240	U
56-55-3	Benzo(a)anthracene	240	U
218-01-9	Chrysene	240	U
117-81-7	Bis(2-ethylhexyl)phthalate	240	U
117-84-0	Di-n-octylphthalate	240	U
205-99-2	Benzo(b)fluoranthene	240	U
207-08-9	Benzo(k)fluoranthene	240	U
50-32-8	Benzo(a)pyrene	240	U
193-39-5	Indeno(1,2,3-cd)pyrene	240	U
53-70-3	Dibenzo(a,h)anthracene	240	U
191-24-2	Benzo(g,h,i)perylene	240	U
58-90-2	2,3,4,6-Tetrachlorophenol	240	U

(1) Cannot be separated from Diphenylamine

SOM01.2 (6/2007)

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AC7

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1270-02B

Sample wt/vol: 30.3 (g/mL) G Lab File ID: S4F4648.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 25 Decanted: (Y/N) N Date Received: 07/26/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/06/2013

GPC Cleanup: (Y/N) Y pH: 7.5 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
100-52-7	Benzaldehyde	220	U
108-95-2	Phenol	220	U
111-44-4	Bis(2-chloroethyl)ether	220	U
95-57-8	2-Chlorophenol	220	U
95-48-7	2-Methylphenol	220	U
108-60-1	2,2'-Oxybis(1-chloropropane)	220	U
98-86-2	Acetophenone	220	U
106-44-5	4-Methylphenol	220	U
621-64-7	N-Nitroso-di-n-propylamine	220	U
67-72-1	Hexachloroethane	220	U
98-95-3	Nitrobenzene	220	U
78-59-1	Isophorone	220	U
88-75-5	2-Nitrophenol	220	U
105-67-9	2,4-Dimethylphenol	220	U
111-91-1	Bis(2-chloroethoxy)methane	220	U
120-83-2	2,4-Dichlorophenol	220	U
91-20-3	Naphthalene	220	U
106-47-8	4-Chloroaniline	220	U
87-68-3	Hexachlorobutadiene	220	U
105-60-2	Caprolactam	220	U
59-50-7	4-Chloro-3-methylphenol	220	U
91-57-6	2-Methylnaphthalene	220	U
77-47-4	Hexachlorocyclopentadiene	220	U
88-06-2	2,4,6-Trichlorophenol	220	U
95-95-4	2,4,5-Trichlorophenol	220	U
92-52-4	1,1'-Biphenyl	220	U
91-58-7	2-Chloronaphthalene	220	U
88-74-4	2-Nitroaniline	440	U
131-11-3	Dimethylphthalate	220	U
606-20-2	2,6-Dinitrotoluene	220	U
208-96-8	Acenaphthylene	220	U
99-09-2	3-Nitroaniline	440	U
83-32-9	Acenaphthene	220	U

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AC7

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1270-02B

Sample wt/vol: 30.3 (g/mL) G Lab File ID: S4F4648.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 25 Decanted: (Y/N) N Date Received: 07/26/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/06/2013

GPC Cleanup: (Y/N) Y pH: 7.5 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
51-28-5	2,4-Dinitrophenol	440	U
100-02-7	4-Nitrophenol	440	U
132-64-9	Dibenzofuran	220	U
121-14-2	2,4-Dinitrotoluene	220	U
84-66-2	Diethylphthalate	220	U
86-73-7	Fluorene	220	U
7005-72-3	4-Chlorophenyl-phenylether	220	U
100-01-6	4-Nitroaniline	440	U
534-52-1	4,6-Dinitro-2-methylphenol	440	U
86-30-6	N-Nitrosodiphenylamine (1)	220	U
95-94-3	1,2,4,5-Tetrachlorobenzene	220	U
101-55-3	4-Bromophenyl-phenylether	220	U
118-74-1	Hexachlorobenzene	220	U
1912-24-9	Atrazine	220	U
87-86-5	Pentachlorophenol	440	U
85-01-8	Phenanthrene	220	U
120-12-7	Anthracene	220	U
86-74-8	Carbazole	220	U
84-74-2	Di-n-butylphthalate	220	U
206-44-0	Fluoranthene	220	U
129-00-0	Pyrene	220	U
85-68-7	Butylbenzylphthalate	220	U
91-94-1	3,3'-Dichlorobenzidine	220	U
56-55-3	Benzo(a)anthracene	220	U
218-01-9	Chrysene	220	U
117-81-7	Bis(2-ethylhexyl)phthalate	220	U
117-84-0	Di-n-octylphthalate	220	U
205-99-2	Benzo(b)fluoranthene	220	U
207-08-9	Benzo(k)fluoranthene	220	U
50-32-8	Benzo(a)pyrene	220	U
193-39-5	Indeno(1,2,3-cd)pyrene	220	U
53-70-3	Dibenzo(a,h)anthracene	220	U
191-24-2	Benzo(g,h,i)perylene	220	U
58-90-2	2,3,4,6-Tetrachlorophenol	220	U

(1) Cannot be separated from Diphenylamine

SOM01.2 (6/2007)

1K - FORM I SV-TIC

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E0AC7

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1270-02B

Sample wt/vol: 30.3 (g/mL) G Lab File ID: S4F4648.D

Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 25 Decanted: (Y/N) N Date Received: 07/26/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/06/2013

GPC Cleanup: (Y/N) Y pH: 7.5 Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	2.909	230	J BN
02		Unknown-02	2.930	310	J BN
03		Unknown-03	2.992	660	J BN
04		Unknown-04	3.023	360	J BN
05		Unknown-05	3.603	100	J
06		Unknown-06	3.706	130	J
07		Unknown-07	5.528	130	J BN
08		Unknown-08	6.708	150	J
09		Unknown-09	7.970	130	J
10		Unknown-10	8.861	140	J
	E966796[2]	Total Alkanes	N/A		

[2] EPA-designated Registry Number.

ACH 8-22-13

SOM01.2 (6/2007)

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AC8

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1270-03B

Sample wt/vol: 30.4 (g/mL) G Lab File ID: S4F4649.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 5.2 Decanted: (Y/N) N Date Received: 07/26/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/06/2013

GPC Cleanup: (Y/N) Y pH: 5.3 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
100-52-7	Benzaldehyde	180	U
108-95-2	Phenol	180	U
111-44-4	Bis(2-chloroethyl)ether	180	U
95-57-8	2-Chlorophenol	180	U
95-48-7	2-Methylphenol	180	U
108-60-1	2,2'-Oxybis(1-chloropropane)	180	U
98-86-2	Acetophenone	180	U
106-44-5	4-Methylphenol	180	U
621-64-7	N-Nitroso-di-n-propylamine	180	U
67-72-1	Hexachloroethane	180	U
98-95-3	Nitrobenzene	180	U
78-59-1	Isophorone	180	U
88-75-5	2-Nitrophenol	180	U
105-67-9	2,4-Dimethylphenol	180	U
111-91-1	Bis(2-chloroethoxy)methane	180	U
120-83-2	2,4-Dichlorophenol	180	U
91-20-3	Naphthalene	180	U
106-47-8	4-Chloroaniline	180	U
87-68-3	Hexachlorobutadiene	180	U
105-60-2	Caprolactam	180	U
59-50-7	4-Chloro-3-methylphenol	180	U
91-57-6	2-Methylnaphthalene	180	U
77-47-4	Hexachlorocyclopentadiene	180	U
88-06-2	2,4,6-Trichlorophenol	180	U
95-95-4	2,4,5-Trichlorophenol	180	U
92-52-4	1,1'-Biphenyl	180	U
91-58-7	2-Chloronaphthalene	180	U
88-74-4	2-Nitroaniline	340	U
131-11-3	Dimethylphthalate	180	U
606-20-2	2,6-Dinitrotoluene	180	U
208-96-8	Acenaphthylene	180	U
99-09-2	3-Nitroaniline	340	U
83-32-9	Acenaphthene	180	U

SOM01.2 (6/2007)

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AC8

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1270-03B

Sample wt/vol: 30.4 (g/mL) G Lab File ID: S4F4649.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 5.2 Decanted: (Y/N) N Date Received: 07/26/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/06/2013

GPC Cleanup: (Y/N) Y pH: 5.3 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
51-28-5	2,4-Dinitrophenol	340	U
100-02-7	4-Nitrophenol	340	U
132-64-9	Dibenzofuran	180	U
121-14-2	2,4-Dinitrotoluene	180	U
84-66-2	Diethylphthalate	180	U
86-73-7	Fluorene	180	U
7005-72-3	4-Chlorophenyl-phenylether	180	U
100-01-6	4-Nitroaniline	340	U
534-52-1	4,6-Dinitro-2-methylphenol	340	U
86-30-6	N-Nitrosodiphenylamine 1	180	U
95-94-3	1,2,4,5-Tetrachlorobenzene	180	U
101-55-3	4-Bromophenyl-phenylether	180	U
118-74-1	Hexachlorobenzene	180	U
1912-24-9	Atrazine	180	U
87-86-5	Pentachlorophenol	340	U
85-01-8	Phenanthrene	180	U
120-12-7	Anthracene	180	U
86-74-8	Carbazole	180	U
84-74-2	Di-n-butylphthalate	180	U
206-44-0	Fluoranthene	180	U
129-00-0	Pyrene	180	U
85-68-7	Butylbenzylphthalate	180	U
91-94-1	3,3'-Dichlorobenzidine	180	U
56-55-3	Benzo(a)anthracene	180	U
218-01-9	Chrysene	180	U
117-81-7	Bis(2-ethylhexyl)phthalate	180	U
117-84-0	Di-n-octylphthalate	180	U
205-99-2	Benzo(b)fluoranthene	180	U
207-08-9	Benzo(k)fluoranthene	180	U
50-32-8	Benzo(a)pyrene	180	U
193-39-5	Indeno(1,2,3-cd)pyrene	180	U
53-70-3	Dibenzo(a,h)anthracene	180	U
191-24-2	Benzo(g,h,i)perylene	180	U
58-90-2	2,3,4,6-Tetrachlorophenol	180	U

(1) Cannot be separated from Diphenylamine

SOM01.2 (6/2007)

1K - FORM I SV-TIC

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E0AC8

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1270-03B

Sample wt/vol: 30.4 (g/mL) G Lab File ID: S4F4649.D

Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 5.2 Decanted: (Y/N) N Date Received: 07/26/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/06/2013

GPC Cleanup: (Y/N) Y pH: 5.3 Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	2.909	190	J BN
02		Unknown-02	2.992	320	J BN
03		Unknown-03	3.023	360	J BN
04		Unknown-04	3.054	120	J BN
05		Unknown-05	3.706	80	J
06		Unknown-06	5.342	90	J
07		Unknown-07	5.528	190	J BN
08		Unknown-08	6.708	120	J
09		Unknown-09	8.861	86	J
10		Unknown-10	11.438	77	J
11		Unknown-11	12.452	75	J
12		Unknown-12	13.229	88	J
13		Unknown-13	18.083	170	J
14		Unknown-14	18.269	600	J
	E966796[2]	Total Alkanes	N/A		

[2]EPA-designated Registry Number.

ACA 8-22-13

SOM01.2 (6/2007)

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AC9

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1270-04B

Sample wt/vol: 30.3 (g/mL) G Lab File ID: S4F4650.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 26 Decanted: (Y/N) N Date Received: 07/26/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/06/2013

GPC Cleanup: (Y/N) Y pH: 7.1 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
100-52-7	Benzaldehyde	230	U
108-95-2	Phenol	230	U
111-44-4	Bis(2-chloroethyl)ether	230	U
95-57-8	2-Chlorophenol	230	U
95-48-7	2-Methylphenol	230	U
108-60-1	2,2'-Oxybis(1-chloropropane)	230	U
98-86-2	Acetophenone	230	U
106-44-5	4-Methylphenol	230	U
621-64-7	N-Nitroso-di-n-propylamine	230	U
67-72-1	Hexachloroethane	230	U
98-95-3	Nitrobenzene	230	U
78-59-1	Isophorone	230	U
88-75-5	2-Nitrophenol	230	U
105-67-9	2,4-Dimethylphenol	230	U
111-91-1	Bis(2-chloroethoxy)methane	230	U
120-83-2	2,4-Dichlorophenol	230	U
91-20-3	Naphthalene	230	U
106-47-8	4-Chloroaniline	230	U
87-68-3	Hexachlorobutadiene	230	U
105-60-2	Caprolactam	230	U
59-50-7	4-Chloro-3-methylphenol	230	U
91-57-6	2-Methylnaphthalene	230	U
77-47-4	Hexachlorocyclopentadiene	230	U
88-06-2	2,4,6-Trichlorophenol	230	U
95-95-4	2,4,5-Trichlorophenol	230	U
92-52-4	1,1'-Biphenyl	230	U
91-58-7	2-Chloronaphthalene	230	U
88-74-4	2-Nitroaniline	440	U
131-11-3	Dimethylphthalate	230	U
606-20-2	2,6-Dinitrotoluene	230	U
208-96-8	Acenaphthylene	230	U
99-09-2	3-Nitroaniline	440	U
83-32-9	Acenaphthene	230	U

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AC9

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1270-04B

Sample wt/vol: 30.3 (g/mL) G Lab File ID: S4F4650.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 26 Decanted: (Y/N) N Date Received: 07/26/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/06/2013

GPC Cleanup: (Y/N) Y pH: 7.1 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
51-28-5	2,4-Dinitrophenol	440	U
100-02-7	4-Nitrophenol	440	U
132-64-9	Dibenzofuran	230	U
121-14-2	2,4-Dinitrotoluene	230	U
84-66-2	Diethylphthalate	230	U
86-73-7	Fluorene	230	U
7005-72-3	4-Chlorophenyl-phenylether	230	U
100-01-6	4-Nitroaniline	440	U
534-52-1	4,6-Dinitro-2-methylphenol	440	U
86-30-6	N-Nitrosodiphenylamine [1]	230	U
95-94-3	1,2,4,5-Tetrachlorobenzene	230	U
101-55-3	4-Bromophenyl-phenylether	230	U
118-74-1	Hexachlorobenzene	230	U
1912-24-9	Atrazine	230	U
87-86-5	Pentachlorophenol	440	U
85-01-8	Phenanthrene	59	J
120-12-7	Anthracene	230	U
86-74-8	Carbazole	230	U
84-74-2	Di-n-butylphthalate	55	J
206-44-0	Fluoranthene	200	J
129-00-0	Pyrene	160	J
85-68-7	Butylbenzylphthalate	230	U
91-94-1	3,3'-Dichlorobenzidine	230	U
56-55-3	Benzo(a)anthracene	92	J
218-01-9	Chrysene	100	J
117-81-7	Bis(2-ethylhexyl)phthalate	230	U
117-84-0	Di-n-octylphthalate	230	U
205-99-2	Benzo(b)fluoranthene	100	J
207-08-9	Benzo(k)fluoranthene	67	J
50-32-8	Benzo(a)pyrene	95	J
193-39-5	Indeno(1,2,3-cd)pyrene	59	J
53-70-3	Dibenzo(a,h)anthracene	230	U
191-24-2	Benzo(g,h,i)perylene	60	J
58-90-2	2,3,4,6-Tetrachlorophenol	230	U

(1) Cannot be separated from Diphenylamine

SOM01.2 (6/2007)

1K - FORM I SV-TIC
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
E0AC9

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1270-04B

Sample wt/vol: 30.3 (g/mL) G Lab File ID: S4F4650.D

Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 26 Decanted: (Y/N) N Date Received: 07/26/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/06/2013

GPC Cleanup: (Y/N) Y pH: 7.1 Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	2.909	260	J BN
02		Unknown-02	2.930	320	J BN
03		Unknown-03	2.992	460	J BN
04		Unknown-04	3.023	530	J BN
05		Unknown-05	3.603	180	J
06		Unknown-06	3.706	250	J
07		Unknown-07	5.114	110	J
08		Unknown-08	5.342	120	J
09		Unknown-09	5.528	140	J BN
10		Unknown-10	6.718	230	J
11		Unknown-11	7.360	91	J
12		Unknown-12	8.861	140	J
13		Unknown-13	11.241	96	J
14		Unknown-14	11.697	110	J
	E966796[2]	Total Alkanes	N/A		

[2] EPA-designated Registry Number.

ACH 8-22-13

SOM01.2 (6/2007)

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AD0

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1270-05B

Sample wt/vol: 30.3 (g/mL) G Lab File ID: S4F4651.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 18 Decanted: (Y/N) N Date Received: 07/26/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/06/2013

GPC Cleanup: (Y/N) Y pH: 7.1 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
100-52-7	Benzaldehyde	210	U
108-95-2	Phenol	210	U
111-44-4	Bis(2-chloroethyl)ether	210	U
95-57-8	2-Chlorophenol	210	U
95-48-7	2-Methylphenol	210	U
108-60-1	2,2'-Oxybis(1-chloropropane)	210	U
98-86-2	Acetophenone	210	U
106-44-5	4-Methylphenol	210	U
621-64-7	N-Nitroso-di-n-propylamine	210	U
67-72-1	Hexachloroethane	210	U
98-95-3	Nitrobenzene	210	U
78-59-1	Isophorone	210	U
88-75-5	2-Nitrophenol	210	U
105-67-9	2,4-Dimethylphenol	210	U
111-91-1	Bis(2-chloroethoxy)methane	210	U
120-83-2	2,4-Dichlorophenol	210	U
91-20-3	Naphthalene	210	U
106-47-8	4-Chloroaniline	210	U
87-68-3	Hexachlorobutadiene	210	U
105-60-2	Caprolactam	210	U
59-50-7	4-Chloro-3-methylphenol	210	U
91-57-6	2-Methylnaphthalene	210	U
77-47-4	Hexachlorocyclopentadiene	210	U
88-06-2	2,4,6-Trichlorophenol	210	U
95-95-4	2,4,5-Trichlorophenol	210	U
92-52-4	1,1'-Biphenyl	210	U
91-58-7	2-Chloronaphthalene	210	U
88-74-4	2-Nitroaniline	400	U
131-11-3	Dimethylphthalate	210	U
606-20-2	2,6-Dinitrotoluene	210	U
208-96-8	Acenaphthylene	210	U
99-09-2	3-Nitroaniline	400	U
83-32-9	Acenaphthene	210	U

SOM01.2 (6/2007)

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AD0

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1270-05B

Sample wt/vol: 30.3 (g/mL) G Lab File ID: S4F4651.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 18 Decanted: (Y/N) N Date Received: 07/26/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/06/2013

GPC Cleanup: (Y/N) Y pH: 7.1 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
51-28-5	2,4-Dinitrophenol	400	U
100-02-7	4-Nitrophenol	400	U
132-64-9	Dibenzofuran	210	U
121-14-2	2,4-Dinitrotoluene	210	U
84-66-2	Diethylphthalate	210	U
86-73-7	Fluorene	210	U
7005-72-3	4-Chlorophenyl-phenylether	210	U
100-01-6	4-Nitroaniline	400	U
534-52-1	4,6-Dinitro-2-methylphenol	400	U
86-30-6	N-Nitrosodiphenylamine 1	210	U
95-94-3	1,2,4,5-Tetrachlorobenzene	210	U
101-55-3	4-Bromophenyl-phenylether	210	U
118-74-1	Hexachlorobenzene	210	U
1912-24-9	Atrazine	210	U
87-86-5	Pentachlorophenol	400	U
85-01-8	Phenanthrene	210	U
120-12-7	Anthracene	210	U
86-74-8	Carbazole	210	U
84-74-2	Di-n-butylphthalate	60	J
206-44-0	Fluoranthene	210	U
129-00-0	Pyrene	210	U
85-68-7	Butylbenzylphthalate	210	U
91-94-1	3,3'-Dichlorobenzidine	210	U
56-55-3	Benzo(a)anthracene	210	U
218-01-9	Chrysene	210	U
117-81-7	Bis(2-ethylhexyl)phthalate	210	U
117-84-0	Di-n-octylphthalate	210	U
205-99-2	Benzo(b)fluoranthene	210	U
207-08-9	Benzo(k)fluoranthene	210	U
50-32-8	Benzo(a)pyrene	210	U
193-39-5	Indeno(1,2,3-cd)pyrene	210	U
53-70-3	Dibenzo(a,h)anthracene	210	U
191-24-2	Benzo(g,h,i)perylene	210	U
58-90-2	2,3,4,6-Tetrachlorophenol	210	U

(1) Cannot be separated from Diphenylamine

1K - FORM I SV-TIC

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E0AD0

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1270-05B

Sample wt/vol: 30.3 (g/mL) G Lab File ID: S4F4651.D

Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 18 Decanted: (Y/N) N Date Received: 07/26/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/06/2013

GPC Cleanup: (Y/N) Y pH: 7.1 Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	2.909	210	J BU
02		Unknown-02	2.930	200	J BU
03		Unknown-03	2.992	540	J BU
04		Unknown-04	3.023	310	J BU
05		Unknown-05	3.054	130	J BU
06		Unknown-06	3.603	140	J
07		Unknown-07	3.706	160	J
08		Unknown-08	5.114	84	J
09		Unknown-09	5.342	100	J
10		Unknown-10	5.528	81	J BU
11		Unknown-11	5.652	110	J
12		Unknown-12	6.718	190	J
13		Unknown-13	7.050	96	J
14		Unknown-14	7.236	87	J
15		Unknown-15	7.650	130	J
16		Unknown-16	7.971	94	J
17		Unknown-17	8.861	140	J
18		Unknown-18	10.869	89	J
19		Unknown-19	11.697	92	J
20		Unknown-20	12.452	91	J
21		Unknown-21	13.229	190	J
	E966796[2]	Total Alkanes	N/A		

[2]EPA-designated Registry Number.

acH 8-22-13

SOM01.2 (6/2007)

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AD1

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1270-06B

Sample wt/vol: 30.4 (g/mL) G Lab File ID: S4F4652.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 51 Decanted: (Y/N) N Date Received: 07/26/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/06/2013

GPC Cleanup: (Y/N) Y pH: 6.9 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
100-52-7	Benzaldehyde	340	U
108-95-2	Phenol	340	U
111-44-4	Bis(2-chloroethyl)ether	340	U
95-57-8	2-Chlorophenol	340	U
95-48-7	2-Methylphenol	340	U
108-60-1	2,2'-Oxybis(1-chloropropane)	340	U
98-86-2	Acetophenone	340	U
106-44-5	4-Methylphenol	340	U
621-64-7	N-Nitroso-di-n-propylamine	340	U
67-72-1	Hexachloroethane	340	U
98-95-3	Nitrobenzene	340	U
78-59-1	Isophorone	340	U
88-75-5	2-Nitrophenol	340	U
105-67-9	2,4-Dimethylphenol	340	U
111-91-1	Bis(2-chloroethoxy)methane	340	U
120-83-2	2,4-Dichlorophenol	340	U
91-20-3	Naphthalene	340	U
106-47-8	4-Chloroaniline	340	U
87-68-3	Hexachlorobutadiene	340	U
105-60-2	Caprolactam	340	U
59-50-7	4-Chloro-3-methylphenol	340	U
91-57-6	2-Methylnaphthalene	340	U
77-47-4	Hexachlorocyclopentadiene	340	U
88-06-2	2,4,6-Trichlorophenol	340	U
95-95-4	2,4,5-Trichlorophenol	340	U
92-52-4	1,1'-Biphenyl	340	U
91-58-7	2-Chloronaphthalene	340	U
88-74-4	2-Nitroaniline	670	U
131-11-3	Dimethylphthalate	340	U
606-20-2	2,6-Dinitrotoluene	340	U
208-96-8	Acenaphthylene	340	U
99-09-2	3-Nitroaniline	670	U
83-32-9	Acenaphthene	340	U

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AD1

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1270-06B

Sample wt/vol: 30.4 (g/mL) G Lab File ID: S4F4652.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 51 Decanted: (Y/N) N Date Received: 07/26/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/06/2013

GPC Cleanup: (Y/N) Y pH: 6.9 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
51-28-5	2,4-Dinitrophenol	670	U
100-02-7	4-Nitrophenol	670	U
132-64-9	Dibenzofuran	340	U
121-14-2	2,4-Dinitrotoluene	340	U
84-66-2	Diethylphthalate	340	U
86-73-7	Fluorene	340	U
7005-72-3	4-Chlorophenyl-phenylether	340	U
100-01-6	4-Nitroaniline	670	U
534-52-1	4,6-Dinitro-2-methylphenol	670	U
86-30-6	N-Nitrosodiphenylamine 1	340	U
95-94-3	1,2,4,5-Tetrachlorobenzene	340	U
101-55-3	4-Bromophenyl-phenylether	340	U
118-74-1	Hexachlorobenzene	340	U
1912-24-9	Atrazine	340	U
87-86-5	Pentachlorophenol	670	U
85-01-8	Phenanthrene	180	J
120-12-7	Anthracene	340	U
86-74-8	Carbazole	340	U
84-74-2	Di-n-butylphthalate	120	J
206-44-0	Fluoranthene	200	J
129-00-0	Pyrene	130	J
85-68-7	Butylbenzylphthalate	340	U
91-94-1	3,3'-Dichlorobenzidine	340	U
56-55-3	Benzo(a)anthracene	85	J
218-01-9	Chrysene	93	J
117-81-7	Bis(2-ethylhexyl)phthalate	340	U
117-84-0	Di-n-octylphthalate	340	U
205-99-2	Benzo(b)fluoranthene	70	J
207-08-9	Benzo(k)fluoranthene	340	U
50-32-8	Benzo(a)pyrene	340	U
193-39-5	Indeno(1,2,3-cd)pyrene	340	U
53-70-3	Dibenzo(a,h)anthracene	340	U
191-24-2	Benzo(g,h,i)perylene	340	U
58-90-2	2,3,4,6-Tetrachlorophenol	340	U

(1) Cannot be separated from Diphenylamine

SOM01.2 (6/2007)

1K - FORM I SV-TIC

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E0AD1

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1270-06B

Sample wt/vol: 30.4 (g/mL) G Lab File ID: S4F4652.D

Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 51 Decanted: (Y/N) N Date Received: 07/26/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/06/2013

GPC Cleanup: (Y/N) Y pH: 6.9 Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	2.909	330	J BU
02		Unknown-02	2.930	280	J BU
03		Unknown-03	2.992	750	J BU
04		Unknown-04	3.023	760	J BU
05		Unknown-05	3.054	210	J BU
06		Unknown-06	3.706	290	J
07		Unknown-07	5.342	220	J
08		Unknown-08	5.528	140	J BU
09		Unknown-09	6.718	400	J
10		Unknown-10	8.933	200	J
11		Unknown-11	9.865	230	J
12		Unknown-12	11.552	180	J
13		Unknown-13	11.738	150	J
14		Unknown-14	13.229	170	J
15		Unknown-15	17.607	180	J
	E966796[2]	Total Alkanes	N/A		

[2] EPA-designated Registry Number.

ACA
8.22.13

SOM01.2 (6/2007)

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AD2

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638

Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1270-07B

Sample wt/vol: 30.5 (g/mL) G

Lab File ID: S4F4653.D

Level: (LOW/MED) LOW

Extraction: (Type) SONC

% Moisture: 41 Decanted: (Y/N) N

Date Received: 07/26/2013

Concentrated Extract Volume: 500 (uL)

Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00

Date Analyzed: 08/06/2013

GPC Cleanup: (Y/N) Y pH: 7.3

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
100-52-7	Benzaldehyde	280	U
108-95-2	Phenol	280	U
111-44-4	Bis(2-chloroethyl)ether	280	U
95-57-8	2-Chlorophenol	280	U
95-48-7	2-Methylphenol	280	U
108-60-1	2,2´-Oxybis(1-chloropropane)	280	U
98-86-2	Acetophenone	96	J
106-44-5	4-Methylphenol	280	U
621-64-7	N-Nitroso-di-n-propylamine	280	U
67-72-1	Hexachloroethane	280	U
98-95-3	Nitrobenzene	280	U
78-59-1	Isophorone	280	U
88-75-5	2-Nitrophenol	280	U
105-67-9	2,4-Dimethylphenol	280	U
111-91-1	Bis(2-chloroethoxy)methane	280	U
120-83-2	2,4-Dichlorophenol	280	U
91-20-3	Naphthalene	280	U
106-47-8	4-Chloroaniline	280	U
87-68-3	Hexachlorobutadiene	280	U
105-60-2	Caprolactam	280	U
59-50-7	4-Chloro-3-methylphenol	280	U
91-57-6	2-Methylnaphthalene	280	U
77-47-4	Hexachlorocyclopentadiene	280	U
88-06-2	2,4,6-Trichlorophenol	280	U
95-95-4	2,4,5-Trichlorophenol	280	U
92-52-4	1,1´-Biphenyl	280	U
91-58-7	2-Chloronaphthalene	280	U
88-74-4	2-Nitroaniline	550	U
131-11-3	Dimethylphthalate	280	U
606-20-2	2,6-Dinitrotoluene	280	U
208-96-8	Acenaphthylene	280	U
99-09-2	3-Nitroaniline	550	U
83-32-9	Acenaphthene	280	U

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AD2

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1270-07B

Sample wt/vol: 30.5 (g/mL) G Lab File ID: S4F4653.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 41 Decanted: (Y/N) N Date Received: 07/26/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/06/2013

GPC Cleanup: (Y/N) Y pH: 7.3 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
51-28-5	2,4-Dinitrophenol	550	U
100-02-7	4-Nitrophenol	550	U
132-64-9	Dibenzofuran	280	U
121-14-2	2,4-Dinitrotoluene	280	U
84-66-2	Diethylphthalate	280	U
86-73-7	Fluorene	280	U
7005-72-3	4-Chlorophenyl-phenylether	280	U
100-01-6	4-Nitroaniline	550	U
534-52-1	4,6-Dinitro-2-methylphenol	550	U
86-30-6	N-Nitrosodiphenylamine 1	280	U
95-94-3	1,2,4,5-Tetrachlorobenzene	280	U
101-55-3	4-Bromophenyl-phenylether	280	U
118-74-1	Hexachlorobenzene	280	U
1912-24-9	Atrazine	280	U
87-86-5	Pentachlorophenol	550	U
85-01-8	Phenanthrene	280	U
120-12-7	Anthracene	280	U
86-74-8	Carbazole	280	U
84-74-2	Di-n-butylphthalate	69	J
206-44-0	Fluoranthene	99	J
129-00-0	Pyrene	77	J
85-68-7	Butylbenzylphthalate	280	U
91-94-1	3,3'-Dichlorobenzidine	280	U
56-55-3	Benzo(a)anthracene	280	U
218-01-9	Chrysene	280	U
117-81-7	Bis(2-ethylhexyl)phthalate	280	U
117-84-0	Di-n-octylphthalate	280	U
205-99-2	Benzo(b)fluoranthene	280	U
207-08-9	Benzo(k)fluoranthene	280	U
50-32-8	Benzo(a)pyrene	280	U
193-39-5	Indeno(1,2,3-cd)pyrene	280	U
53-70-3	Dibenzo(a,h)anthracene	280	U
191-24-2	Benzo(g,h,i)perylene	280	U
58-90-2	2,3,4,6-Tetrachlorophenol	280	U

(1) Cannot be separated from Diphenylamine

1K - FORM I SV-TIC

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E0AD2

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM

Case No.: 43638

Mod. Ref No.:

SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1270-07B

Sample wt/vol: 30.5 (g/mL) G

Lab File ID: S4F4653.D

Level: (TRACE or LOW/MED) LOW

Extraction: (Type) SONC

% Moisture: 41

Decanted: (Y/N) N

Date Received: 07/26/2013

Concentrated Extract Volume: 500 (uL)

Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL)

GPC Factor: 2.00

Date Analyzed: 08/06/2013

GPC Cleanup: (Y/N) Y

pH: 7.3

Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	2.909	280	J BN
02		Unknown-02	2.930	230	J BN
03		Unknown-03	2.992	730	J BN
04		Unknown-04	3.023	480	J BN
05		Unknown-05	3.054	130	J BN
06		Unknown-06	3.220	1900	J
07		Unknown-07	3.603	310	J
08		Unknown-08	3.706	430	J
09		Unknown-09	5.342	150	J
10		Unknown-10	5.528	160	J BN
11		Unknown-11	6.718	220	J
12		Unknown-12	7.401	130	J
13		Unknown-13	7.971	150	J
14		Unknown-14	8.840	170	J
15		Unknown-15	8.861	170	J
16		Unknown-16	8.933	400	J
17		Unknown-17	9.865	380	J
18		Unknown-18	11.552	210	J
19		Unknown-19	11.697	170	J
20		Unknown-20	11.738	260	J
21		Unknown-21	12.452	190	J
22		Unknown-22	12.483	220	J
23		Unknown-23	12.908	190	J
24		Unknown-24	13.228	320	J
25		Unknown-25	14.181	240	J
26	83-46-5	.beta.-Sitosterol	15.961	1800	NJ
27		Unknown-26	16.064	150	J
28		Unknown-27	16.385	220	J
29		Unknown-28	16.882	680	J
30		Unknown-29	18.269	800	J
	E966796[2]	Total Alkanes	N/A		

[2]EPA-designated Registry Number.

combine

combine

ACH 8-22-13

SOM01.2 (6/2007)

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AD3

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1270-08B

Sample wt/vol: 30.2 (g/mL) G Lab File ID: S4F4654.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 48 Decanted: (Y/N) N Date Received: 07/26/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/06/2013

GPC Cleanup: (Y/N) Y pH: 6.9 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
100-52-7	Benzaldehyde	330	U
108-95-2	Phenol	330	U
111-44-4	Bis(2-chloroethyl)ether	330	U
95-57-8	2-Chlorophenol	330	U
95-48-7	2-Methylphenol	330	U
108-60-1	2,2´-Oxybis(1-chloropropane)	330	U
98-86-2	Acetophenone	100	J
106-44-5	4-Methylphenol	330	U
621-64-7	N-Nitroso-di-n-propylamine	330	U
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2,4-Dimethylphenol	330	U
111-91-1	Bis(2-chloroethoxy)methane	330	U
120-83-2	2,4-Dichlorophenol	330	U
91-20-3	Naphthalene	330	U
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
105-60-2	Caprolactam	330	U
59-50-7	4-Chloro-3-methylphenol	330	U
91-57-6	2-Methylnaphthalene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
88-06-2	2,4,6-Trichlorophenol	330	U
95-95-4	2,4,5-Trichlorophenol	330	U
92-52-4	1,1´-Biphenyl	330	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	640	U
131-11-3	Dimethylphthalate	330	U
606-20-2	2,6-Dinitrotoluene	330	U
208-96-8	Acenaphthylene	330	U
99-09-2	3-Nitroaniline	640	U
83-32-9	Acenaphthene	330	U

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AD3

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638

Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1270-08B

Sample wt/vol: 30.2 (g/mL) G

Lab File ID: S4F4654.D

Level: (LOW/MED) LOW

Extraction: (Type) SONC

% Moisture: 48 Decanted: (Y/N) N

Date Received: 07/26/2013

Concentrated Extract Volume: 500 (uL)

Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00

Date Analyzed: 08/06/2013

GPC Cleanup: (Y/N) Y pH: 6.9

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
51-28-5	2,4-Dinitrophenol	640	U
100-02-7	4-Nitrophenol	640	U
132-64-9	Dibenzofuran	330	U
121-14-2	2,4-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	330	U
86-73-7	Fluorene	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
100-01-6	4-Nitroaniline	640	U
534-52-1	4,6-Dinitro-2-methylphenol	640	U
86-30-6	N-Nitrosodiphenylamine [1]	330	U
95-94-3	1,2,4,5-Tetrachlorobenzene	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
1912-24-9	Atrazine	330	U
87-86-5	Pentachlorophenol	640	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
86-74-8	Carbazole	330	U
84-74-2	Di-n-butylphthalate	140	J
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330 ~~81~~	~~B~~ U
91-94-1	3,3'-Dichlorobenzidine	330	U
56-55-3	Benzo(a)anthracene	330	U
218-01-9	Chrysene	330	U
117-81-7	Bis(2-ethylhexyl)phthalate	330	U
117-84-0	Di-n-octylphthalate	330	U
205-99-2	Benzo(b)fluoranthene	330	U
207-08-9	Benzo(k)fluoranthene	330	U
50-32-8	Benzo(a)pyrene	330	U
193-39-5	Indeno(1,2,3-cd)pyrene	330	U
53-70-3	Dibenzo(a,h)anthracene	330	U
191-24-2	Benzo(g,h,i)perylene	330	U
58-90-2	2,3,4,6-Tetrachlorophenol	330	U

(1) Cannot be separated from Diphenylamine

@CH 8-22-13

SOM01.2 (6/2007)

1K - FORM I SV-TIC
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
E0AD3

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1270-08B

Sample wt/vol: 30.2 (g/mL) G Lab File ID: S4F4654.D

Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 48 Decanted: (Y/N) N Date Received: 07/26/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/06/2013

GPC Cleanup: (Y/N) Y pH: 6.9 Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	2.909	240	J BJ
02		Unknown-02	2.930	300	J BJ
03		Unknown-03	2.992	630	J BJ
04		Unknown-04	3.023	410	J BJ
05		Unknown-05	3.220	2000	J
06		Unknown-06	3.396	140	J
07		Unknown-07	3.603	300	J
08		Unknown-08	3.706	690	J
09		Unknown-09	5.342	170	J
10		Unknown-10	6.708	260	J
11		Unknown-11	7.971	160	J
12		Unknown-12	8.840	190	J
13		Unknown-13	8.861	280	J
14		Unknown-14	8.933	350	J
15		Unknown-15	9.037	130	J
16		Unknown-16	9.606	190	J
17		Unknown-17	9.865	450	J
18		Unknown-18	10.072	170	J
19		Unknown-19	10.507	130	J
20		Unknown-20	11.283	140	J
21		Unknown-21	11.552	300	J
22		Unknown-22	11.697	220	J
23		Unknown-23	11.738	230	J
24		Unknown-24	12.452	260	J
25		Unknown-25	12.483	270	J
26		Unknown-26	12.908	290	J
27		Unknown-27	13.229	360	J
28		Unknown-28	14.171	220	J
29	83-47-6	.gamma.-Sitosterol	15.951	1700	NJ
30		Unknown-29	18.269	770	J
	E966796[2]	Total Alkanes	N/A		

[2] EPA-designated Registry Number.

SOM01.2 (6/2007)

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK4U

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM

Case No.: 43638

Mod. Ref No.:

SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: MB-73022

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: S4F4644.D

Level: (LOW/MED) LOW

Extraction: (Type) SONC

% Moisture:

Decanted: (Y/N)

Date Received:

Concentrated Extract Volume: 500 (uL)

Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL)

GPC Factor: 2.00

Date Analyzed: 08/06/2013

GPC Cleanup: (Y/N) Y

pH:

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
100-52-7	Benzaldehyde	170	U
108-95-2	Phenol	170	U
111-44-4	Bis(2-chloroethyl)ether	170	U
95-57-8	2-Chlorophenol	170	U
95-48-7	2-Methylphenol	170	U
108-60-1	2,2'-Oxybis(1-chloropropane)	170	U
98-86-2	Acetophenone	170	U
106-44-5	4-Methylphenol	170	U
621-64-7	N-Nitroso-di-n-propylamine	170	U
67-72-1	Hexachloroethane	170	U
98-95-3	Nitrobenzene	170	U
78-59-1	Isophorone	170	U
88-75-5	2-Nitrophenol	170	U
105-67-9	2,4-Dimethylphenol	170	U
111-91-1	Bis(2-chloroethoxy)methane	170	U
120-83-2	2,4-Dichlorophenol	170	U
91-20-3	Naphthalene	170	U
106-47-8	4-Chloroaniline	170	U
87-68-3	Hexachlorobutadiene	170	U
105-60-2	Caprolactam	170	U
59-50-7	4-Chloro-3-methylphenol	170	U
91-57-6	2-Methylnaphthalene	170	U
77-47-4	Hexachlorocyclopentadiene	170	U
88-06-2	2,4,6-Trichlorophenol	170	U
95-95-4	2,4,5-Trichlorophenol	170	U
92-52-4	1,1'-Biphenyl	170	U
91-58-7	2-Chloronaphthalene	170	U
88-74-4	2-Nitroaniline	330	U
131-11-3	Dimethylphthalate	170	U
606-20-2	2,6-Dinitrotoluene	170	U
208-96-8	Acenaphthylene	170	U
99-09-2	3-Nitroaniline	330	U
83-32-9	Acenaphthene	170	U

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK4U

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: MB-73022

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S4F4644.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: Decanted: (Y/N) Date Received:

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/06/2013

GPC Cleanup: (Y/N) Y pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
51-28-5	2,4-Dinitrophenol	330	U
100-02-7	4-Nitrophenol	330	U
132-64-9	Dibenzofuran	170	U
121-14-2	2,4-Dinitrotoluene	170	U
84-66-2	Diethylphthalate	170	U
86-73-7	Fluorene	170	U
7005-72-3	4-Chlorophenyl-phenylether	170	U
100-01-6	4-Nitroaniline	330	U
534-52-1	4,6-Dinitro-2-methylphenol	330	U
86-30-6	N-Nitrosodiphenylamine 1	170	U
95-94-3	1,2,4,5-Tetrachlorobenzene	170	U
101-55-3	4-Bromophenyl-phenylether	170	U
118-74-1	Hexachlorobenzene	170	U
1912-24-9	Atrazine	170	U
87-86-5	Pentachlorophenol	330	U
85-01-8	Phenanthrene	170	U
120-12-7	Anthracene	170	U
86-74-8	Carbazole	170	U
84-74-2	Di-n-butylphthalate	170	U
206-44-0	Fluoranthene	170	U
129-00-0	Pyrene	170	U
85-68-7	Butylbenzylphthalate	36	J
91-94-1	3,3'-Dichlorobenzidine	170	U
56-55-3	Benzo(a)anthracene	170	U
218-01-9	Chrysene	170	U
117-81-7	Bis(2-ethylhexyl)phthalate	170	U
117-84-0	Di-n-octylphthalate	170	U
205-99-2	Benzo(b)fluoranthene	170	U
207-08-9	Benzo(k)fluoranthene	170	U
50-32-8	Benzo(a)pyrene	170	U
193-39-5	Indeno(1,2,3-cd)pyrene	170	U
53-70-3	Dibenzo(a,h)anthracene	170	U
191-24-2	Benzo(g,h,i)perylene	170	U
58-90-2	2,3,4,6-Tetrachlorophenol	170	U

(1) Cannot be separated from Diphenylamine

SOM01.2 (6/2007)

1K - FORM I SV-TIC

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK4U

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AC6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: MB-73022

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S4F4644.D

Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC

% Moisture: Decanted: (Y/N) Date Received:

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/06/2013

GPC Cleanup: (Y/N) Y pH: Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	2.909	150	J
02		Unknown-02	2.930	130	J
03		Unknown-03	2.992	320	J
04		Unknown-04	3.023	370	J
05		Unknown-05	3.872	94	J
06		Unknown-06	5.528	400	J
	E966796[2]	Total Alkanes	N/A		

[2]EPA-designated Registry Number.

SOM01.2 (6/2007)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY ~ REGION V

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Sample Delivery Group: EOAC6 CERCLIS No: FL N000510872

Case No: 43638 Site Name/Location: Castle Construction - FL

Contractor or EPA Lab: Mitkem Data User: Weston

No. of Samples: 8 Date Sampled or Date Received: 8 Aug 2013

Have Chain-of-Custody records been received? Yes ✓ No ____

Have traffic reports or packing lists been received? Yes ✓ No ____

If no, are traffic reports or packing list numbers written on the Chain-of-Custody Record?

Yes ____ No ____

If no, which traffic report or packing list numbers are missing?

Are basic data forms in? Yes ✓ No ____

No of samples claimed: 8 No. of samples received: ____

Received by: Pat Joyner Date: 8 Aug 2013

Received by LSSS: Pat Joyner Date: 8 Aug 2013

Review started: 8/13/13 Reviewer Signature: Stephanie Tobin

Total time spent on review: 11 hrs Date review completed: 8-21-13

Copied by: A. C. Harvey Date: August 22, 2013

Mailed to user by: Pat Joyner Date: 23 Aug 13

DATA USER:

Please fill in the blanks below and return this form to:

Sylvia Griffin, Data Mgmt. Coordinator, Region V, ML-10C

Data received by: ____ Date: ____

Data review received by: ____ Date: ____

Inorganic Data Complete	[ ] Suitable for Intended Purpose [ ] T if OK
Organic Data Complete	[ ] Suitable for Intended Purpose [ ] T if OK
Dioxin data Complete	[ ] Suitable for Intended Purpose [ ] T if OK
SAS Data Complete	[ ] Suitable for Intended Purpose [ ] T if OK

PROBLEMS: Please indicate reasons why data are not suitable for your uses.

Received by Data Mgmt. Coordinator for Files. Date: ____

ESAT Controlled Number: ESAT5.417.00562 = pg. 23 Aug 13

DATE: August 23, 2013

Weston Solutions, Inc.
ATTN: **Ms. Tonya Balla**
750 East Bunker Court – Suite 500
Vernon Hills, IL 60061-1450

Site Name: **Castle Construction - IL – level 3 data validation**

Case	Lab	Samples	SDG	Matrix
43638	ChemTech	17	ME0AA5	soil

Analysis: metals/Hg/Cn

Upon receipt of data, please check each package for completeness and note any missing deliverables below.

PLEASE! Send this form back to Sylvia Griffin, Data Management Coordinator after filling in the blanks below.

Data Received by:_____ Date:_____

PROBLEMS:

Please indicate if data is complete, and note if there are any deliverables missing from the cases noted above.

_____

_____

Received by Data Management Coordinator, CRL for file.

Signature:_____ Date:_____

FROM: **U.S. EPA - Region 5**
Sylvia Griffin
Central Regional Laboratory
536 S. Clark, 10th Floor
Chicago, IL 60605

Sent By: Pat Joyner
Data Coordinator
ESAT Region 5/**TechLaw**

Controlled Document

ESAT5.415.00199
ACH
8-21-13

Regional Transmittal Form

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 8/16/2013

SUBJECT: Review of Data
Received for review on 8/8/2013

FROM: Timothy Prendiville, Supervisor, Chief (SR-6J)
Superfund Contract Management Section

TO: Data User: Weston
Email address: t.balla@westonsolutions.com

LEVEL 3 DATA VALIDATION

We have reviewed the data for the following case:

SITE NAME: Castle Construction (IL)

CASE NUMBER: 43638 **SDG NUMBER:** ME0AA5

Number and Type of Samples: 17 soils (metals/Hg/CN)

Sample Numbers: ME0AA5 – A6, A8 – A9, B0 – B9, C0 – C2

Laboratory: ChemTech **Hrs. for Review:** 20.3
+ 2.0

Following are our findings:

CC: Howard Pham
Region 5 TPO
Mail Code: SA-5J

Below is a summary of the out-of-control audits and the possible effects on the data for this case:

Seventeen (17) soil samples, numbered ME0AA5 – A6, A8 – A9, B0 – B9, and C0 – C2, were collected July 23 – 24, 2013. The lab received the samples July 24 – 25, 2013 in good condition. All samples were analyzed for metals and cyanide. All samples were analyzed using the CLP SOW ISM01.3 analysis procedures.

Mercury analysis was performed using a Cold Vapor AA Technique. Cyanide analysis was performed using the MIDI Distillation procedure. The remaining inorganic analyses were performed using an Inductively Coupled Plasma-Atomic Emission Spectroscopy (ICP-AES) procedure.

The conversion calculation formula provided in the laboratory case narrative does not include unit values for several of the variables or multipliers within the equation. Reported sample results are calculated correctly.

All calibration standards for cyanide analysis were distilled on July 26, 2013 and are listed as expiring on July 27, 2013. All cyanide samples were analyzed on July 29, 2013.

1. HOLDING TIME:

The inorganic soil samples were reviewed for holding time violations using criteria developed for water samples. No defects were found.

2. CALIBRATIONS:

The following inorganic samples are associated with a calibration curve used past its expiration.

Hits are qualified "J" and non-detects are qualified "UJ".

Cyanide

ME0AA5, ME0AA6, ME0AA8, ME0AA9, ME0AB0, ME0AB1, ME0AB2, ME0AB3, ME0AB4, ME0AB5, ME0AB6, ME0AB7, ME0AB8, ME0AB9, ME0AC0, ME0AC1, ME0AC2

3. BLANKS:

The following inorganic samples are associated with an ICB/CCB or preparation blank concentration which is greater than the method detection limit (MDL). The sample result is greater than the MDL.

Hits less than the CRQL are qualified "U". The sample result is raised to the CRQL.
Hits greater than the CRQL but less than 5 times the blank are qualified "J+".

Cadmium

ME0AA6, ME0AA9, ME0AB0, ME0AB1

Cobalt

ME0AA6, ME0AA9, ME0AB0, ME0AB1

Potassium

ME0AB2, ME0AB5, ME0AB9, ME0AC1

The following inorganic samples are associated with a negative ICB/CCB or preparation blank concentration whose absolute value is greater than the method detection limit (MDL). The sample result is also greater than the MDL.

Hits less than 5 times the blank are qualified "J-".

Mercury

ME0AB6

4. MATRIX SPIKE/MATRIX SPIKE DUPLICATE AND LAB CONTROL SAMPLE:

No defects were found for matrix spike or laboratory control samples.

5. LABORATORY AND FIELD DUPLICATE:

No defects were found for the laboratory duplicate samples.

ME0AB0/B1 are field duplicate pairs. No defects were found for the field duplicate samples.

6. ICP ANALYSIS:

No defects were found for the serial dilution or ICS samples.

7. SAMPLE RESULTS:

The following inorganic samples have analyte concentrations reported above the method detection limit (MDL) but below the quantitation limit (CRQL).
Results are qualified "J".

Antimony
ME0AA5, ME0AA8, ME0AA9, ME0AB0, ME0AB4, ME0AB5, ME0AB6, ME0AB7, ME0AB8, ME0AC0, ME0AC2

Barium
ME0AC0, ME0AC1, ME0AC2

Beryllium
ME0AA6, ME0AA8, ME0AA9, ME0AB0, ME0AB1, ME0AB2, ME0AB3, ME0AB5, ME0AB6, ME0AB7, ME0AB8, ME0AB9, ME0AC0, ME0AC1, ME0AC2

Cadmium
ME0AB2, ME0AB5, ME0AB7, ME0AB8, ME0AB9, ME0AC1

Cobalt
ME0AB2, ME0AB5, ME0AB7, ME0AB9, ME0AC1

Copper
ME0AC1

Mercury
ME0AB6

Nickel
ME0AB2, ME0AC1

Selenium
ME0AA6, ME0AA8, ME0AA9, ME0AB0, ME0AB1, ME0AB2, ME0AB3, ME0AB4, ME0AB5, ME0AB6, ME0AB7, ME0AB8, ME0AB9, ME0AC0, ME0AC1, ME0AC2

Silver
ME0AA9, ME0AB0, ME0AB1, ME0AB2, ME0AB5, ME0AB8, ME0AB9, ME0AC1

Sodium
ME0AA5, ME0AA6, ME0AA8, ME0AA9, ME0AB0, ME0AB1, ME0AB2, ME0AB3, ME0AB4, ME0AB5, ME0AB6, ME0AB7, ME0AB8, ME0AB9, ME0AC0, ME0AC1, ME0AC2

Vanadium
ME0AC1

Cyanide
ME0AB9

All data, except those qualified above, are acceptable.

Reviewed by: Lauren Edinburg
Date: August 16, 2013

EXES ISM01.3 Data Qualifier Sheet

Qualifiers	Data Qualifier Definitions
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.
UJ	The analyte was analyzed for, but not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Reviewed by: Lauren Edinburg
Date: August 16, 2013

Sample Summary Report

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AA5	Lab Code:	CHEM
Sample Number:	ME0AA5	Method:	ICP_AES	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SO08-(12-24)-072313	pH:	2	Sample Date:	07/23/2013	Sample Time:	16:15:00
% Moisture :				% Solids :	91.2		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Aluminum	8520	mg/kg	1			Yes	S2BVE
Antimony	1.5	mg/kg	1	J	J	Yes	S2BVE
Arsenic	19.0	mg/kg	1			Yes	S2BVE
Barium	240	mg/kg	1			Yes	S2BVE
Beryllium	0.83	mg/kg	1			Yes	S2BVE
Cadmium	2.3	mg/kg	1			Yes	S2BVE
Calcium	12100	mg/kg	1			Yes	S2BVE
Chromium	13.0	mg/kg	1			Yes	S2BVE
Cobalt	20.2	mg/kg	1			Yes	S2BVE
Copper	12.5	mg/kg	1			Yes	S2BVE
Iron	47800	mg/kg	1			Yes	S2BVE
Lead	34.5	mg/kg	1			Yes	S2BVE
Magnesium	7280	mg/kg	1			Yes	S2BVE
Manganese	4370	mg/kg	10	D		Yes	S2BVE
Nickel	28.4	mg/kg	1			Yes	S2BVE
Potassium	799	mg/kg	1			Yes	S2BVE
Selenium	4.1	mg/kg	1			Yes	S2BVE
Silver	4.5	mg/kg	1			Yes	S2BVE
Sodium	215	mg/kg	1	J	J	Yes	S2BVE
Thallium	2.0	mg/kg	1	U	U	Yes	S2BVE
Vanadium	25.5	mg/kg	1			Yes	S2BVE
Zinc	35.1	mg/kg	1			Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AA5	Lab Code:	CHEM
Sample Number:	ME0AA5	Method:	Hg	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SO08-(12-24)-072313	pH:	2	Sample Date:	07/23/2013	Sample Time:	16:15:00
% Moisture :				% Solids :	91.2		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Mercury	0.10	mg/kg	1	U	U	Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AA5	Lab Code:	CHEM
Sample Number:	ME0AA5	Method:	CN	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SO08-(12-24)-072313	pH:	2	Sample Date:	07/23/2013	Sample Time:	16:15:00
% Moisture :				% Solids :	91.2		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Cyanide	0.55	mg/kg	1	U	UJ	Yes	S2BVE

Case No: 43638	Contract: EPW09038	SDG No: ME0AA5	Lab Code: CHEM

Sample Number:	ME0AA6	Method:	ICP_AES	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SO12-(0-12)-072313	pH:	2	Sample Date:	07/23/2013	Sample Time:	17:05:00
% Moisture :				% Solids :	94.4		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Aluminum	4300	mg/kg	1			Yes	S2BVE
Antimony	4.6	mg/kg	1	U	U	Yes	S2BVE
Arsenic	3.8	mg/kg	1			Yes	S2BVE
Barium	54.1	mg/kg	1			Yes	S2BVE
Beryllium	0.26	mg/kg	1	J	J	Yes	S2BVE
Cadmium	0.38	mg/kg	1	J	U	Yes	S2BVE
Calcium	1680	mg/kg	1			Yes	S2BVE
Chromium	7.6	mg/kg	1			Yes	S2BVE
Cobalt	3.8	mg/kg	1	J	U	Yes	S2BVE
Copper	6.4	mg/kg	1			Yes	S2BVE
Iron	9190	mg/kg	1			Yes	S2BVE
Lead	14.0	mg/kg	1			Yes	S2BVE
Magnesium	883	mg/kg	1			Yes	S2BVE
Manganese	262	mg/kg	1			Yes	S2BVE
Nickel	5.9	mg/kg	1			Yes	S2BVE
Potassium	429	mg/kg	1			Yes	S2BVE
Selenium	1.3	mg/kg	1	J	J	Yes	S2BVE
Silver	0.87	mg/kg	1			Yes	S2BVE
Sodium	82.4	mg/kg	1	J	J	Yes	S2BVE
Thallium	1.9	mg/kg	1	U	U	Yes	S2BVE
Vanadium	11.9	mg/kg	1			Yes	S2BVE
Zinc	31.5	mg/kg	1			Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AA5	Lab Code:	CHEM
Sample Number:	ME0AA6	Method:	CN	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SO12-(0-12)-072313	pH:	2	Sample Date:	07/23/2013	Sample Time:	17:05:00
% Moisture :				% Solids :	94.4		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Cyanide	0.53	mg/kg	1	U	UJ	Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AA5	Lab Code:	CHEM
Sample Number:	ME0AA6	Method:	Hg	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SO12-(0-12)-072313	pH:	2	Sample Date:	07/23/2013	Sample Time:	17:05:00
% Moisture :				% Solids :	94.4		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Mercury	0.096	mg/kg	1	U	U	Yes	S2BVE

Case No: 43638	Contract: EPW09038	SDG No: ME0AA5	Lab Code: CHEM

Sample Number:	ME0AA8	Method:	CN	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SO01-(0-12)-072413	pH:	2	Sample Date:	07/24/2013	Sample Time:	08:20:00
% Moisture :				% Solids :	94.8		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Cyanide	0.53	mg/kg	1	U	UJ	Yes	S2BVE

Case No: 43638	Contract: EPW09038	SDG No: ME0AA5	Lab Code: CHEM
Sample Number: ME0AA8	Method: ICP_AES	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SO01-(0-12)-072413	pH: 2	Sample Date: 07/24/2013	Sample Time: 08:20:00
% Moisture :		% Solids : 94.8	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Aluminum	4760	mg/kg	1			Yes	S2BVE
Antimony	0.21	mg/kg	1	J	J	Yes	S2BVE
Arsenic	3.9	mg/kg	1			Yes	S2BVE
Barium	81.3	mg/kg	1			Yes	S2BVE
Beryllium	0.33	mg/kg	1	J	J	Yes	S2BVE
Cadmium	0.42	mg/kg	1			Yes	S2BVE
Calcium	58400	mg/kg	1			Yes	S2BVE
Chromium	7.0	mg/kg	1			Yes	S2BVE
Cobalt	5.7	mg/kg	1			Yes	S2BVE
Copper	9.5	mg/kg	1			Yes	S2BVE
Iron	9390	mg/kg	1			Yes	S2BVE
Lead	13.0	mg/kg	1			Yes	S2BVE
Magnesium	34000	mg/kg	1			Yes	S2BVE
Manganese	649	mg/kg	1			Yes	S2BVE
Nickel	7.6	mg/kg	1			Yes	S2BVE
Potassium	1180	mg/kg	1			Yes	S2BVE
Selenium	0.90	mg/kg	1	J	J	Yes	S2BVE
Silver	0.85	mg/kg	1			Yes	S2BVE
Sodium	154	mg/kg	1	J	J	Yes	S2BVE
Thallium	2.0	mg/kg	1	U	U	Yes	S2BVE
Vanadium	14.0	mg/kg	1			Yes	S2BVE
Zinc	69.1	mg/kg	1			Yes	S2BVE

Case No: 43638	Contract: EPW09038	SDG No: ME0AA5	Lab Code: CHEM

Sample Number:	ME0AA8	Method:	Hg	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SO01-(0-12)-072413	pH:	2	Sample Date:	07/24/2013	Sample Time:	08:20:00
% Moisture :				% Solids :	94.8		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Mercury	0.098	mg/kg	1	U	U	Yes	S2BVE

Case No: 43638	Contract: EPW09038	SDG No: ME0AA5	Lab Code: CHEM
Sample Number: ME0AA9	Method: ICP_AES	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SO02-(0-12)-072413	pH: 2	Sample Date: 07/24/2013	Sample Time: 09:10:00
% Moisture :		% Solids : 91.4	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Aluminum	4860	mg/kg	1			Yes	S2BVE
Antimony	0.17	mg/kg	1	J	J	Yes	S2BVE
Arsenic	3.4	mg/kg	1			Yes	S2BVE
Barium	71.7	mg/kg	1			Yes	S2BVE
Beryllium	0.28	mg/kg	1	J	J	Yes	S2BVE
Cadmium	0.41	mg/kg	1	J	U	Yes	S2BVE
Calcium	2030	mg/kg	1			Yes	S2BVE
Chromium	7.2	mg/kg	1			Yes	S2BVE
Cobalt	4.1	mg/kg	1	J	U	Yes	S2BVE
Copper	6.7	mg/kg	1			Yes	S2BVE
Iron	8220	mg/kg	1			Yes	S2BVE
Lead	14.7	mg/kg	1			Yes	S2BVE
Magnesium	1550	mg/kg	1			Yes	S2BVE
Manganese	513	mg/kg	1			Yes	S2BVE
Nickel	5.5	mg/kg	1			Yes	S2BVE
Potassium	819	mg/kg	1			Yes	S2BVE
Selenium	1.1	mg/kg	1	J	J	Yes	S2BVE
Silver	0.78	mg/kg	1	J	J	Yes	S2BVE
Sodium	85.9	mg/kg	1	J	J	Yes	S2BVE
Thallium	2.0	mg/kg	1	U	U	Yes	S2BVE
Vanadium	13.7	mg/kg	1			Yes	S2BVE
Zinc	37.0	mg/kg	1			Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AA5	Lab Code:	CHEM
Sample Number:	ME0AA9	Method:	Hg	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SO02-(0-12)-072413	pH:	2	Sample Date:	07/24/2013	Sample Time:	09:10:00
% Moisture :				% Solids :	91.4		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Mercury	0.10	mg/kg	1	U	U	Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AA5	Lab Code:	CHEM
Sample Number:	ME0AA9	Method:	CN	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SO02-(0-12)-072413	pH:	2	Sample Date:	07/24/2013	Sample Time:	09:10:00
% Moisture :				% Solids :	91.4		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Cyanide	0.55	mg/kg	1	U	UJ	Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AA5	Lab Code:	CHEM
Sample Number:	ME0AB0	Method:	ICP_AES	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-S013-(0-12)-072413	pH:	2	Sample Date:	07/24/2013	Sample Time:	10:00:00
% Moisture :				% Solids :	94.6		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Aluminum	3450	mg/kg	1			Yes	S2BVE
Antimony	0.28	mg/kg	1	J	J	Yes	S2BVE
Arsenic	2.7	mg/kg	1			Yes	S2BVE
Barium	57.2	mg/kg	1			Yes	S2BVE
Beryllium	0.21	mg/kg	1	J	J	Yes	S2BVE
Cadmium	0.41	mg/kg	1	J	U	Yes	S2BVE
Calcium	1770	mg/kg	1			Yes	S2BVE
Chromium	5.6	mg/kg	1			Yes	S2BVE
Cobalt	4.1	mg/kg	1	J	U	Yes	S2BVE
Copper	12.1	mg/kg	1			Yes	S2BVE
Iron	7510	mg/kg	1			Yes	S2BVE
Lead	13.0	mg/kg	1			Yes	S2BVE
Magnesium	840	mg/kg	1			Yes	S2BVE
Manganese	206	mg/kg	1			Yes	S2BVE
Nickel	4.2	mg/kg	1			Yes	S2BVE
Potassium	527	mg/kg	1			Yes	S2BVE
Selenium	1.2	mg/kg	1	J	J	Yes	S2BVE
Silver	0.72	mg/kg	1	J	J	Yes	S2BVE
Sodium	67.2	mg/kg	1	J	J	Yes	S2BVE
Thallium	2.0	mg/kg	1	U	U	Yes	S2BVE
Vanadium	10.2	mg/kg	1			Yes	S2BVE
Zinc	39.9	mg/kg	1			Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AA5	Lab Code:	CHEM
Sample Number:	ME0AB0	Method:	CN	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-S013-(0-12)-072413	pH:	2	Sample Date:	07/24/2013	Sample Time:	10:00:00
% Moisture :				% Solids :	94.6		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Cyanide	0.53	mg/kg	1	U	UJ	Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AA5	Lab Code:	CHEM
Sample Number:	ME0AB0	Method:	Hg	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-S013-(0-12)-072413	pH:	2	Sample Date:	07/24/2013	Sample Time:	10:00:00
% Moisture :				% Solids :	94.6		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Mercury	0.098	mg/kg	1	U	U	Yes	S2BVE

Case No: 43638	Contract: EPW09038	SDG No: ME0AA5	Lab Code: CHEM
Sample Number: ME0AB1	Method: Hg	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SO13-(0-12)-072413D	pH: 2	Sample Date: 07/24/2013	Sample Time: 10:05:00
% Moisture :		% Solids : 94.5	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Mercury	0.10	mg/kg	1	U	U	Yes	S2BVE

Case No: 43638	Contract: EPW09038	SDG No: ME0AA5	Lab Code: CHEM
Sample Number: ME0AB1	Method: ICP_AES	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SO13-(0-12)-072413D	pH: 2	Sample Date: 07/24/2013	Sample Time: 10:05:00
% Moisture :		% Solids : 94.5	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Aluminum	3530	mg/kg	1			Yes	S2BVE
Antimony	4.5	mg/kg	1	U	U	Yes	S2BVE
Arsenic	2.6	mg/kg	1			Yes	S2BVE
Barium	59.5	mg/kg	1			Yes	S2BVE
Beryllium	0.22	mg/kg	1	J	J	Yes	S2BVE
Cadmium	0.37	mg/kg	1	J	U	Yes	S2BVE
Calcium	1840	mg/kg	1			Yes	S2BVE
Chromium	5.5	mg/kg	1			Yes	S2BVE
Cobalt	3.7	mg/kg	1	J	U	Yes	S2BVE
Copper	11.9	mg/kg	1			Yes	S2BVE
Iron	7380	mg/kg	1			Yes	S2BVE
Lead	13.2	mg/kg	1			Yes	S2BVE
Magnesium	895	mg/kg	1			Yes	S2BVE
Manganese	252	mg/kg	1			Yes	S2BVE
Nickel	4.3	mg/kg	1			Yes	S2BVE
Potassium	540	mg/kg	1			Yes	S2BVE
Selenium	1.1	mg/kg	1	J	J	Yes	S2BVE
Silver	0.72	mg/kg	1	J	J	Yes	S2BVE
Sodium	63.9	mg/kg	1	J	J	Yes	S2BVE
Thallium	1.9	mg/kg	1	U	U	Yes	S2BVE
Vanadium	10.1	mg/kg	1			Yes	S2BVE
Zinc	39.1	mg/kg	1			Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AA5	Lab Code:	CHEM
Sample Number:	ME0AB1	Method:	CN	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SO13-(0-12)-072413D	pH:	2	Sample Date:	07/24/2013	Sample Time:	10:05:00
% Moisture :				% Solids :	94.5		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Cyanide	0.53	mg/kg	1	U	UJ	Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AA5	Lab Code:	CHEM
Sample Number:	ME0AB2	Method:	Hg	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-S014-(0-12)-072413	pH:	2	Sample Date:	07/24/2013	Sample Time:	10:45:00
% Moisture :				% Solids :	98		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Mercury	0.10	mg/kg	1	U	U	Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AA5	Lab Code:	CHEM
Sample Number:	ME0AB2	Method:	ICP_AES	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-S014-(0-12)-072413	pH:	2	Sample Date:	07/24/2013	Sample Time:	10:45:00
% Moisture :				% Solids :	98		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Aluminum	1910	mg/kg	1			Yes	S2BVE
Antimony	4.7	mg/kg	1	U	U	Yes	S2BVE
Arsenic	1.2	mg/kg	1			Yes	S2BVE
Barium	23.2	mg/kg	1			Yes	S2BVE
Beryllium	0.048	mg/kg	1	J	J	Yes	S2BVE
Cadmium	0.11	mg/kg	1	J	J	Yes	S2BVE
Calcium	1720	mg/kg	1			Yes	S2BVE
Chromium	3.0	mg/kg	1			Yes	S2BVE
Cobalt	1.1	mg/kg	1	J	J	Yes	S2BVE
Copper	3.3	mg/kg	1			Yes	S2BVE
Iron	3620	mg/kg	1			Yes	S2BVE
Lead	5.8	mg/kg	1			Yes	S2BVE
Magnesium	867	mg/kg	1			Yes	S2BVE
Manganese	75.6	mg/kg	1			Yes	S2BVE
Nickel	2.4	mg/kg	1	J	J	Yes	S2BVE
Potassium	389	mg/kg	1	J	U	Yes	S2BVE
Selenium	0.41	mg/kg	1	J	J	Yes	S2BVE
Silver	0.32	mg/kg	1	J	J	Yes	S2BVE
Sodium	50.3	mg/kg	1	J	J	Yes	S2BVE
Thallium	1.9	mg/kg	1	U	U	Yes	S2BVE
Vanadium	4.4	mg/kg	1			Yes	S2BVE
Zinc	20.6	mg/kg	1			Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AA5	Lab Code:	CHEM
Sample Number:	ME0AB2	Method:	CN	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-S014-(0-12)-072413	pH:	2	Sample Date:	07/24/2013	Sample Time:	10:45:00
% Moisture :				% Solids :	98		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Cyanide	0.51	mg/kg	1	U	UJ	Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AA5	Lab Code:	CHEM
Sample Number:	ME0AB2D	Method:	Hg	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-S014-(0-12)-072413	pH:	2	Sample Date:	07/24/2013	Sample Time:	10:45:00
% Moisture :				% Solids :	98		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Mercury	0.10	mg/kg	1	U	U	Yes	S2BVE

Case No: 43638	Contract: EPW09038	SDG No: ME0AA5	Lab Code: CHEM

Sample Number:	ME0AB2D	Method:	ICP_AES	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-S014-(0-12)-072413	pH:	2	Sample Date:	07/24/2013	Sample Time:	10:45:00
% Moisture :				% Solids :	98		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Aluminum	1910	mg/kg	1			Yes	S2BVE
Antimony	4.6	mg/kg	1	U	U	Yes	S2BVE
Arsenic	1.4	mg/kg	1			Yes	S2BVE
Barium	23.3	mg/kg	1			Yes	S2BVE
Beryllium	0.072	mg/kg	1	J	J	Yes	S2BVE
Cadmium	0.11	mg/kg	1	J	j	Yes	S2BVE
Calcium	1860	mg/kg	1			Yes	S2BVE
Chromium	2.9	mg/kg	1			Yes	S2BVE
Cobalt	1.1	mg/kg	1	J	J	Yes	S2BVE
Copper	3.3	mg/kg	1			Yes	S2BVE
Iron	3560	mg/kg	1			Yes	S2BVE
Lead	5.8	mg/kg	1			Yes	S2BVE
Magnesium	943	mg/kg	1			Yes	S2BVE
Manganese	73.9	mg/kg	1			Yes	S2BVE
Nickel	2.4	mg/kg	1	J	J	Yes	S2BVE
Potassium	384	mg/kg	1	J	U	Yes	S2BVE
Selenium	0.50	mg/kg	1	J	J	Yes	S2BVE
Silver	0.33	mg/kg	1	J	J	Yes	S2BVE
Sodium	38.1	mg/kg	1	J	J	Yes	S2BVE
Thallium	1.9	mg/kg	1	U	U	Yes	S2BVE
Vanadium	4.3	mg/kg	1			Yes	S2BVE
Zinc	19.5	mg/kg	1			Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AA5	Lab Code:	CHEM
Sample Number:	ME0AB2D	Method:	CN	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-S014-(0-12)-072413	pH:	2	Sample Date:	07/24/2013	Sample Time:	10:45:00
% Moisture :				% Solids :	98		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Cyanide	0.51	mg/kg	1	U	UJ	Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AA5	Lab Code:	CHEM
Sample Number:	ME0AB2S	Method:	CN	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-S014-(0-12)-072413	pH:	2	Sample Date:	07/24/2013	Sample Time:	10:45:00
% Moisture :				% Solids :	98		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Cyanide	5.2	mg/kg	1		J	Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AA5	Lab Code:	CHEM
Sample Number:	ME0AB2S	Method:	Hg	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-S014-(0-12)-072413	pH:	2	Sample Date:	07/24/2013	Sample Time:	10:45:00
% Moisture :				% Solids :	98		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Mercury	0.47	mg/kg	1			Yes	S2BVE

Case No: 43638	Contract: EPW09038	SDG No: ME0AA5	Lab Code: CHEM
Sample Number: ME0AB2S	Method: ICP_AES	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-S014-(0-12)-072413	pH: 2	Sample Date: 07/24/2013	Sample Time: 10:45:00
% Moisture :		% Solids : 98	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Antimony	15.7	mg/kg	1			Yes	S2BVE
Arsenic	8.7	mg/kg	1			Yes	S2BVE
Barium	453	mg/kg	1			Yes	S2BVE
Beryllium	10.0	mg/kg	1			Yes	S2BVE
Cadmium	10.2	mg/kg	1			Yes	S2BVE
Chromium	45.7	mg/kg	1			Yes	S2BVE
Cobalt	103	mg/kg	1			Yes	S2BVE
Copper	55.5	mg/kg	1			Yes	S2BVE
Lead	9.9	mg/kg	1			Yes	S2BVE
Manganese	177	mg/kg	1			Yes	S2BVE
Nickel	106	mg/kg	1			Yes	S2BVE
Selenium	9.9	mg/kg	1			Yes	S2BVE
Silver	10.1	mg/kg	1			Yes	S2BVE
Thallium	11.0	mg/kg	1			Yes	S2BVE
Vanadium	109	mg/kg	1			Yes	S2BVE
Zinc	115	mg/kg	1			Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AA5	Lab Code:	CHEM
Sample Number:	ME0AB3	Method:	Hg	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD08-(0-6)-072413	pH:	2	Sample Date:	07/24/2013	Sample Time:	15:00:00
% Moisture :				% Solids :	69.7		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Mercury	0.14	mg/kg	1	U	U	Yes	S2BVE

Case No: 43638	Contract: EPW09038	SDG No: ME0AA5	Lab Code: CHEM
Sample Number: ME0AB3	Method: ICP_AES	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD08-(0-6)-072413	pH: 2	Sample Date: 07/24/2013	Sample Time: 15:00:00
% Moisture :		% Solids : 69.7	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Aluminum	6940	mg/kg	1			Yes	S2BVE
Antimony	6.8	mg/kg	1	U	U	Yes	S2BVE
Arsenic	4.4	mg/kg	1			Yes	S2BVE
Barium	66.9	mg/kg	1			Yes	S2BVE
Beryllium	0.42	mg/kg	1	J	J	Yes	S2BVE
Cadmium	0.68	mg/kg	1			Yes	S2BVE
Calcium	38000	mg/kg	1			Yes	S2BVE
Chromium	12.6	mg/kg	1			Yes	S2BVE
Cobalt	8.0	mg/kg	1			Yes	S2BVE
Copper	11.4	mg/kg	1			Yes	S2BVE
Iron	15900	mg/kg	1			Yes	S2BVE
Lead	14.8	mg/kg	1			Yes	S2BVE
Magnesium	14900	mg/kg	1			Yes	S2BVE
Manganese	532	mg/kg	1			Yes	S2BVE
Nickel	17.9	mg/kg	1			Yes	S2BVE
Potassium	832	mg/kg	1			Yes	S2BVE
Selenium	1.9	mg/kg	1	J	J	Yes	S2BVE
Silver	1.5	mg/kg	1			Yes	S2BVE
Sodium	151	mg/kg	1	J	J	Yes	S2BVE
Thallium	2.8	mg/kg	1	U	U	Yes	S2BVE
Vanadium	15.7	mg/kg	1			Yes	S2BVE
Zinc	61.9	mg/kg	1			Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AA5	Lab Code:	CHEM
Sample Number:	ME0AB3	Method:	CN	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD08-(0-6)-072413	pH:	2	Sample Date:	07/24/2013	Sample Time:	15:00:00
% Moisture :				% Solids :	69.7		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Cyanide	0.72	mg/kg	1	U	UJ	Yes	S2BVE

Case No: 43638	Contract: EPW09038	SDG No: ME0AA5	Lab Code: CHEM
Sample Number: ME0AB4	Method: ICP_AES	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD08-(6-12)-072413	pH: 2	Sample Date: 07/24/2013	Sample Time: 15:05:00
% Moisture :		% Solids : 75.6	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Aluminum	8770	mg/kg	1			Yes	S2BVE
Antimony	0.33	mg/kg	1	J	J	Yes	S2BVE
Arsenic	4.0	mg/kg	1			Yes	S2BVE
Barium	49.4	mg/kg	1			Yes	S2BVE
Beryllium	0.53	mg/kg	1			Yes	S2BVE
Cadmium	0.68	mg/kg	1			Yes	S2BVE
Calcium	42000	mg/kg	1			Yes	S2BVE
Chromium	15.8	mg/kg	1			Yes	S2BVE
Cobalt	11.2	mg/kg	1			Yes	S2BVE
Copper	18.7	mg/kg	1			Yes	S2BVE
Iron	18100	mg/kg	1			Yes	S2BVE
Lead	13.3	mg/kg	1			Yes	S2BVE
Magnesium	21800	mg/kg	1			Yes	S2BVE
Manganese	608	mg/kg	1			Yes	S2BVE
Nickel	25.7	mg/kg	1			Yes	S2BVE
Potassium	1400	mg/kg	1			Yes	S2BVE
Selenium	2.2	mg/kg	1	J	J	Yes	S2BVE
Silver	1.6	mg/kg	1			Yes	S2BVE
Sodium	169	mg/kg	1	J	J	Yes	S2BVE
Thallium	2.3	mg/kg	1	U	U	Yes	S2BVE
Vanadium	19.6	mg/kg	1			Yes	S2BVE
Zinc	63.1	mg/kg	1			Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AA5	Lab Code:	CHEM
Sample Number:	ME0AB4	Method:	Hg	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD08-(6-12)-072413	pH:	2	Sample Date:	07/24/2013	Sample Time:	15:05:00
% Moisture :				% Solids :	75.6		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Mercury	0.13	mg/kg	1	U	U	Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AA5	Lab Code:	CHEM
Sample Number:	ME0AB4	Method:	CN	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD08-(6-12)-072413	pH:	2	Sample Date:	07/24/2013	Sample Time:	15:05:00
% Moisture :				% Solids :	75.6		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Cyanide	0.66	mg/kg	1	U	UJ	Yes	S2BVE

Case No: 43638	Contract: EPW09038	SDG No: ME0AA5	Lab Code: CHEM

Sample Number:	ME0AB5	Method:	ICP_AES	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD07-(0-6)-072413	pH:	2	Sample Date:	07/24/2013	Sample Time:	15:45:00
% Moisture :				% Solids :	73.4		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Aluminum	3170	mg/kg	1			Yes	S2BVE
Antimony	0.26	mg/kg	1	J	J	Yes	S2BVE
Arsenic	3.9	mg/kg	1			Yes	S2BVE
Barium	40.6	mg/kg	1			Yes	S2BVE
Beryllium	0.23	mg/kg	1	J	J	Yes	S2BVE
Cadmium	0.40	mg/kg	1	J	J	Yes	S2BVE
Calcium	24100	mg/kg	1			Yes	S2BVE
Chromium	5.9	mg/kg	1			Yes	S2BVE
Cobalt	3.8	mg/kg	1	J	J	Yes	S2BVE
Copper	6.1	mg/kg	1			Yes	S2BVE
Iron	9480	mg/kg	1			Yes	S2BVE
Lead	11.0	mg/kg	1			Yes	S2BVE
Magnesium	9760	mg/kg	1			Yes	S2BVE
Manganese	237	mg/kg	1			Yes	S2BVE
Nickel	7.3	mg/kg	1			Yes	S2BVE
Potassium	467	mg/kg	1	J	U	Yes	S2BVE
Selenium	1.3	mg/kg	1	J	J	Yes	S2BVE
Silver	0.91	mg/kg	1	J	J	Yes	S2BVE
Sodium	89.1	mg/kg	1	J	J	Yes	S2BVE
Thallium	2.3	mg/kg	1	U	U	Yes	S2BVE
Vanadium	8.7	mg/kg	1			Yes	S2BVE
Zinc	33.3	mg/kg	1			Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AA5	Lab Code:	CHEM
Sample Number:	ME0AB6	Method:	Hg	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD07-(6-12)-072413	pH:	2	Sample Date:	07/24/2013	Sample Time:	15:50:00
% Moisture :				% Solids :	62.4		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Mercury	0.077	mg/kg	1	J	J-	Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AA5	Lab Code:	CHEM
Sample Number:	ME0AB6	Method:	CN	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD07-(6-12)-072413	pH:	2	Sample Date:	07/24/2013	Sample Time:	15:50:00
% Moisture :				% Solids :	62.4		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Cyanide	0.80	mg/kg	1	U	UJ	Yes	S2BVE

Case No: 43638	Contract: EPW09038	SDG No: ME0AA5	Lab Code: CHEM
Sample Number: ME0AB6	Method: ICP_AES	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD07-(6-12)-072413	pH: 2	Sample Date: 07/24/2013	Sample Time: 15:50:00
% Moisture :		% Solids : 62.4	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Aluminum	7450	mg/kg	1			Yes	S2BVE
Antimony	0.32	mg/kg	1	J	J	Yes	S2BVE
Arsenic	6.5	mg/kg	1			Yes	S2BVE
Barium	84.2	mg/kg	1			Yes	S2BVE
Beryllium	0.49	mg/kg	1	J	J	Yes	S2BVE
Cadmium	0.81	mg/kg	1			Yes	S2BVE
Calcium	26200	mg/kg	1			Yes	S2BVE
Chromium	12.6	mg/kg	1			Yes	S2BVE
Cobalt	7.2	mg/kg	1			Yes	S2BVE
Copper	14.8	mg/kg	1			Yes	S2BVE
Iron	17100	mg/kg	1			Yes	S2BVE
Lead	22.3	mg/kg	1			Yes	S2BVE
Magnesium	8530	mg/kg	1			Yes	S2BVE
Manganese	317	mg/kg	1			Yes	S2BVE
Nickel	17.2	mg/kg	1			Yes	S2BVE
Potassium	843	mg/kg	1			Yes	S2BVE
Selenium	2.5	mg/kg	1	J	J	Yes	S2BVE
Silver	1.6	mg/kg	1			Yes	S2BVE
Sodium	130	mg/kg	1	J	J	Yes	S2BVE
Thallium	3.3	mg/kg	1	U	U	Yes	S2BVE
Vanadium	17.3	mg/kg	1			Yes	S2BVE
Zinc	73.3	mg/kg	1			Yes	S2BVE

Case No: 43638	Contract: EPW09038	SDG No: ME0AA5	Lab Code: CHEM
Sample Number: ME0AB7	Method: ICP_AES	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD09-(0-6)-072413	pH: 2	Sample Date: 07/24/2013	Sample Time: 16:20:00
% Moisture :		% Solids : 59.3	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Aluminum	4980	mg/kg	1			Yes	S2BVE
Antimony	0.33	mg/kg	1	J	J	Yes	S2BVE
Arsenic	5.6	mg/kg	1			Yes	S2BVE
Barium	52.3	mg/kg	1			Yes	S2BVE
Beryllium	0.27	mg/kg	1	J	J	Yes	S2BVE
Cadmium	0.59	mg/kg	1	J	J	Yes	S2BVE
Calcium	34200	mg/kg	1			Yes	S2BVE
Chromium	8.6	mg/kg	1			Yes	S2BVE
Cobalt	5.9	mg/kg	1	J	J	Yes	S2BVE
Copper	10.7	mg/kg	1			Yes	S2BVE
Iron	14200	mg/kg	1			Yes	S2BVE
Lead	12.8	mg/kg	1			Yes	S2BVE
Magnesium	12100	mg/kg	1			Yes	S2BVE
Manganese	327	mg/kg	1			Yes	S2BVE
Nickel	12.7	mg/kg	1			Yes	S2BVE
Potassium	633	mg/kg	1			Yes	S2BVE
Selenium	2.0	mg/kg	1	J	J	Yes	S2BVE
Silver	1.3	mg/kg	1			Yes	S2BVE
Sodium	123	mg/kg	1	J	J	Yes	S2BVE
Thallium	3.0	mg/kg	1	U	U	Yes	S2BVE
Vanadium	12.9	mg/kg	1			Yes	S2BVE
Zinc	51.8	mg/kg	1			Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AA5	Lab Code:	CHEM
Sample Number:	ME0AB7	Method:	CN	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD09-(0-6)-072413	pH:	2	Sample Date:	07/24/2013	Sample Time:	16:20:00
% Moisture :				% Solids :	59.3		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Cyanide	0.84	mg/kg	1	U	UJ	Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AA5	Lab Code:	CHEM
Sample Number:	ME0AB7	Method:	Hg	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD09-(0-6)-072413	pH:	2	Sample Date:	07/24/2013	Sample Time:	16:20:00
% Moisture :				% Solids :	59.3		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Mercury	0.14	mg/kg	1	U	U	Yes	S2BVE

Case No: 43638	Contract: EPW09038	SDG No: ME0AA5	Lab Code: CHEM

Sample Number:	ME0AB8	Method:	ICP_AES	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD09-(6-12)-072413	pH:	2	Sample Date:	07/24/2013	Sample Time:	16:25:00
% Moisture :				% Solids :	76.8		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Aluminum	3940	mg/kg	1			Yes	S2BVE
Antimony	0.22	mg/kg	1	J	J	Yes	S2BVE
Arsenic	3.6	mg/kg	1			Yes	S2BVE
Barium	20.5	mg/kg	1			Yes	S2BVE
Beryllium	0.35	mg/kg	1	J	J	Yes	S2BVE
Cadmium	0.42	mg/kg	1	J	J	Yes	S2BVE
Calcium	51100	mg/kg	1			Yes	S2BVE
Chromium	7.2	mg/kg	1			Yes	S2BVE
Cobalt	5.8	mg/kg	1			Yes	S2BVE
Copper	8.9	mg/kg	1			Yes	S2BVE
Iron	10100	mg/kg	1			Yes	S2BVE
Lead	9.3	mg/kg	1			Yes	S2BVE
Magnesium	27700	mg/kg	1			Yes	S2BVE
Manganese	177	mg/kg	1			Yes	S2BVE
Nickel	11.5	mg/kg	1			Yes	S2BVE
Potassium	605	mg/kg	1			Yes	S2BVE
Selenium	1.4	mg/kg	1	J	J	Yes	S2BVE
Silver	0.91	mg/kg	1	J	J	Yes	S2BVE
Sodium	127	mg/kg	1	J	J	Yes	S2BVE
Thallium	2.3	mg/kg	1	U	U	Yes	S2BVE
Vanadium	11.2	mg/kg	1			Yes	S2BVE
Zinc	40.5	mg/kg	1			Yes	S2BVE

Case No: 43638	Contract: EPW09038	SDG No: ME0AA5	Lab Code: CHEM
Sample Number: ME0AB8	Method: Hg	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD09-(6-12)-072413	pH: 2	Sample Date: 07/24/2013	Sample Time: 16:25:00
% Moisture :		% Solids : 76.8	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Mercury	0.11	mg/kg	1	U	U	Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AA5	Lab Code:	CHEM
Sample Number:	ME0AB8	Method:	CN	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD09-(6-12)-072413	pH:	2	Sample Date:	07/24/2013	Sample Time:	16:25:00
% Moisture :				% Solids :	76.8		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Cyanide	0.65	mg/kg	1	U	UJ	Yes	S2BVE

Case No: 43638	Contract: EPW09038	SDG No: ME0AA5	Lab Code: CHEM

Sample Number:	ME0AB9	Method:	ICP_AES	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD06-(0-6)-072413	pH:	2	Sample Date:	07/24/2013	Sample Time:	17:00:00
% Moisture :				% Solids :	73.2		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Aluminum	3170	mg/kg	1			Yes	S2BVE
Antimony	6.5	mg/kg	1	U	U	Yes	S2BVE
Arsenic	2.4	mg/kg	1			Yes	S2BVE
Barium	56.2	mg/kg	1			Yes	S2BVE
Beryllium	0.29	mg/kg	1	J	J	Yes	S2BVE
Cadmium	0.41	mg/kg	1	J	J	Yes	S2BVE
Calcium	62000	mg/kg	1			Yes	S2BVE
Chromium	6.8	mg/kg	1			Yes	S2BVE
Cobalt	3.9	mg/kg	1	J	J	Yes	S2BVE
Copper	4.3	mg/kg	1			Yes	S2BVE
Iron	8510	mg/kg	1			Yes	S2BVE
Lead	5.4	mg/kg	1			Yes	S2BVE
Magnesium	9590	mg/kg	1			Yes	S2BVE
Manganese	545	mg/kg	1			Yes	S2BVE
Nickel	7.5	mg/kg	1			Yes	S2BVE
Potassium	538	mg/kg	1	J	U	Yes	S2BVE
Selenium	1.1	mg/kg	1	J	J	Yes	S2BVE
Silver	0.76	mg/kg	1	J	J	Yes	S2BVE
Sodium	102	mg/kg	1	J	J	Yes	S2BVE
Thallium	2.7	mg/kg	1	U	U	Yes	S2BVE
Vanadium	10.3	mg/kg	1			Yes	S2BVE
Zinc	24.2	mg/kg	1			Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AA5	Lab Code:	CHEM
Sample Number:	ME0AB9	Method:	CN	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD06-(0-6)-072413	pH:	2	Sample Date:	07/24/2013	Sample Time:	17:00:00
% Moisture :				% Solids :	73.2		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Cyanide	0.31	mg/kg	1	J	J	Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AA5	Lab Code:	CHEM
Sample Number:	ME0AB9	Method:	Hg	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD06-(0-6)-072413	pH:	2	Sample Date:	07/24/2013	Sample Time:	17:00:00
% Moisture :				% Solids :	73.2		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Mercury	0.13	mg/kg	1	U	U	Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AA5	Lab Code:	CHEM
Sample Number:	ME0AC0	Method:	CN	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD06-(6-12)-072413	pH:	2	Sample Date:	07/24/2013	Sample Time:	17:05:00
% Moisture :				% Solids :	75.9		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Cyanide	0.66	mg/kg	1	U	UJ	Yes	S2BVE

Case No: 43638	Contract: EPW09038	SDG No: ME0AA5	Lab Code: CHEM
Sample Number: ME0AC0	Method: Hg	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD06-(6-12)-072413	pH: 2	Sample Date: 07/24/2013	Sample Time: 17:05:00
% Moisture :		% Solids : 75.9	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Mercury	0.13	mg/kg	1	U	U	Yes	S2BVE

Case No: 43638	Contract: EPW09038	SDG No: ME0AA5	Lab Code: CHEM
Sample Number: ME0AC0	Method: ICP_AES	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD06-(6-12)-072413	pH: 2	Sample Date: 07/24/2013	Sample Time: 17:05:00
% Moisture :		% Solids : 75.9	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Aluminum	11900	mg/kg	1			Yes	S2BVE
Antimony	0.50	mg/kg	1	J	J	Yes	S2BVE
Arsenic	7.9	mg/kg	1			Yes	S2BVE
Barium	13.3	mg/kg	1	J	J	Yes	S2BVE
Beryllium	0.43	mg/kg	1	J	J	Yes	S2BVE
Cadmium	0.98	mg/kg	1			Yes	S2BVE
Calcium	59600	mg/kg	1			Yes	S2BVE
Chromium	19.1	mg/kg	1			Yes	S2BVE
Cobalt	14.8	mg/kg	1			Yes	S2BVE
Copper	18.5	mg/kg	1			Yes	S2BVE
Iron	31200	mg/kg	1			Yes	S2BVE
Lead	17.3	mg/kg	1			Yes	S2BVE
Magnesium	19200	mg/kg	1			Yes	S2BVE
Manganese	514	mg/kg	1			Yes	S2BVE
Nickel	35.3	mg/kg	1			Yes	S2BVE
Potassium	2290	mg/kg	1			Yes	S2BVE
Selenium	3.3	mg/kg	1	J	J	Yes	S2BVE
Silver	2.7	mg/kg	1			Yes	S2BVE
Sodium	301	mg/kg	1	J	J	Yes	S2BVE
Thallium	2.7	mg/kg	1	U	U	Yes	S2BVE
Vanadium	13.0	mg/kg	1			Yes	S2BVE
Zinc	60.3	mg/kg	1			Yes	S2BVE

Case No: 43638	Contract: EPW09038	SDG No: ME0AA5	Lab Code: CHEM
Sample Number: ME0AC1	Method: ICP_AES	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD05-(0-6)-072413	pH: 2	Sample Date: 07/24/2013	Sample Time: 17:35:00
% Moisture :		% Solids : 82.4	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Aluminum	1130	mg/kg	1			Yes	S2BVE
Antimony	6.1	mg/kg	1	U	U	Yes	S2BVE
Arsenic	1.8	mg/kg	1			Yes	S2BVE
Barium	12.9	mg/kg	1	J	J	Yes	S2BVE
Beryllium	0.085	mg/kg	1	J	J	Yes	S2BVE
Cadmium	0.14	mg/kg	1	J	J	Yes	S2BVE
Calcium	15400	mg/kg	1			Yes	S2BVE
Chromium	2.5	mg/kg	1			Yes	S2BVE
Cobalt	1.9	mg/kg	1	J	J	Yes	S2BVE
Copper	1.8	mg/kg	1	J	J	Yes	S2BVE
Iron	5330	mg/kg	1			Yes	S2BVE
Lead	2.6	mg/kg	1			Yes	S2BVE
Magnesium	5130	mg/kg	1			Yes	S2BVE
Manganese	198	mg/kg	1			Yes	S2BVE
Nickel	3.5	mg/kg	1	J	J	Yes	S2BVE
Potassium	506	mg/kg	1	J	U	Yes	S2BVE
Selenium	0.64	mg/kg	1	J	J	Yes	S2BVE
Silver	0.45	mg/kg	1	J	J	Yes	S2BVE
Sodium	84.5	mg/kg	1	J	J	Yes	S2BVE
Thallium	2.5	mg/kg	1	U	U	Yes	S2BVE
Vanadium	4.9	mg/kg	1	J	J	Yes	S2BVE
Zinc	10.7	mg/kg	1			Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AA5	Lab Code:	CHEM
Sample Number:	ME0AC1	Method:	Hg	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD05-(0-6)-072413	pH:	2	Sample Date:	07/24/2013	Sample Time:	17:35:00
% Moisture :				% Solids :	82.4		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Mercury	0.11	mg/kg	1	U	U	Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AA5	Lab Code:	CHEM
Sample Number:	ME0AC1	Method:	CN	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD05-(0-6)-072413	pH:	2	Sample Date:	07/24/2013	Sample Time:	17:35:00
% Moisture :				% Solids :	82.4		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Cyanide	0.61	mg/kg	1	U	UJ	Yes	S2BVE

Case No: 43638	Contract: EPW09038	SDG No: ME0AA5	Lab Code: CHEM
Sample Number: ME0AC2	Method: ICP_AES	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD05-(6-12)-072413	pH: 2	Sample Date: 07/24/2013	Sample Time: 17:40:00
% Moisture :		% Solids : 83.1	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Aluminum	8980	mg/kg	1			Yes	S2BVE
Antimony	0.32	mg/kg	1	J	J	Yes	S2BVE
Arsenic	5.6	mg/kg	1			Yes	S2BVE
Barium	10.5	mg/kg	1	J	J	Yes	S2BVE
Beryllium	0.38	mg/kg	1	J	J	Yes	S2BVE
Cadmium	0.72	mg/kg	1			Yes	S2BVE
Calcium	44500	mg/kg	1			Yes	S2BVE
Chromium	14.3	mg/kg	1			Yes	S2BVE
Cobalt	10.9	mg/kg	1			Yes	S2BVE
Copper	14.0	mg/kg	1			Yes	S2BVE
Iron	23300	mg/kg	1			Yes	S2BVE
Lead	13.0	mg/kg	1			Yes	S2BVE
Magnesium	14300	mg/kg	1			Yes	S2BVE
Manganese	383	mg/kg	1			Yes	S2BVE
Nickel	26.1	mg/kg	1			Yes	S2BVE
Potassium	1780	mg/kg	1			Yes	S2BVE
Selenium	2.6	mg/kg	1	J	J	Yes	S2BVE
Silver	2.0	mg/kg	1			Yes	S2BVE
Sodium	231	mg/kg	1	J	J	Yes	S2BVE
Thallium	2.1	mg/kg	1	U	U	Yes	S2BVE
Vanadium	9.7	mg/kg	1			Yes	S2BVE
Zinc	45.7	mg/kg	1			Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AA5	Lab Code:	CHEM
Sample Number:	ME0AC2	Method:	Hg	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD05-(6-12)-072413	pH:	2	Sample Date:	07/24/2013	Sample Time:	17:40:00
% Moisture :				% Solids :	83.1		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Mercury	0.11	mg/kg	1	U	U	Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AA5	Lab Code:	CHEM
Sample Number:	ME0AC2	Method:	CN	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD05-(6-12)-072413	pH:	2	Sample Date:	07/24/2013	Sample Time:	17:40:00
% Moisture :				% Solids :	83.1		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Cyanide	0.60	mg/kg	1	U	UJ	Yes	S2BVE

SDG # ME0AA5

USEPA CLP Inorganics COC (LAB COPY)

DateShipped: 7/23/2013
CarrierName:
AirbillNo:

CHAIN OF CUSTODY RECORD

Case #: 43638
Cooler #:

No: 5-072313-165907-0002
Lab: ChemTech Consulting Group
Lab Contact: Divya Mehta
Lab Phone: 908-789-8900

Inorganic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Organic Sample #	For Lab Use Only
ME0AA0	Ground Water/ David Sena	Grab	ICP/MS, Cyanide	5-17203 (HNO3 pH<2), 5-17204 (NaOH) (2)	CC-RW02-072313	07/23/2013 10:15	E0AA0	
ME0AA1	Ground Water/ David Sena	Grab	ICP/MS, Cyanide	5-17207 (HNO3 pH<2), 5-17208 (NaOH) (2)	CC-RW02-072313D	07/23/2013 10:20	E0AA1	
ME0AA2	Ground Water/ David Sena	Grab	ICP/MS, Cyanide	5-17211 (HNO3 pH<2), 5-17212 (NaOH) (2)	CC-RW01-072313	07/23/2013 11:20	E0AA2	
ME0AA3	Ground Water/ David Sena	Grab	ICP/MS, Cyanide	5-17214 (HNO3 pH<2), 5-17216 (NaOH) (4)	CC-RW03-072313	07/23/2013 12:00	E0AA3	
ME0AA5	Soil/ David Sena	Grab	CLP TAL Total Metals ICP-MS and Cyanide	5-17218 (None) (1)	CC-SO08-(12-24)-072313	07/23/2013 16:15	E0AA5	
ME0AA6	Soil/ David Sena	Grab	CLP TAL Total Metals ICP-MS and Cyanide	5-17223 (None) (1)	CC-SO12-(0-12)-072313	07/23/2013 17:05	E0AA6	

Sample(s) to be used for Lab QC: ME0AA3

TEMP. 5°C

Shipment for Case Complete? N

Samples Transferred From Chain of Custody # N/A

Analysis Key: ICP/MS=CLP TAL Total Metals ICP-MS

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
	David Sena	7-23-13							Jothi Tenigo	7/24/13	1030

(Except: ME0AA5 and ME0AA6 all samples are in SDG# ME0AA0)

Copy Original Documents are included in CSF ME0AA0

Signature: Smehal

Date: 7-25-13

SDG# ME0AA5

USEPA CLP Inorganics COC (LAB COPY)

DateShipped: 7/24/2013
CarrierName: FedEx
AirbillNo:

CHAIN OF CUSTODY RECORD

Case #: 43638
Cooler #:

No: 5-072413-082121-0004
Lab: ChemTech Consulting Group
Lab Contact: Divya Mehta
Lab Phone: 908-789-8900

Inorganic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Organic Sample #	For Lab Use Only
ME0AA8	Soil/ David Sena	Grab	CLP TAL Total Metals ICP-MS, Mercury, and Cyanide /14	5-17228 (None) (1)	CC-SO01-(0-12)-072413	07/24/2013 08:20	E0AA8	
ME0AA9	Soil/ David Sena	Grab	CLP TAL Total Metals ICP-MS, Mercury, and Cyanide /14	5-17232 (None) (1)	CC-SO02-(0-12)-072413	07/24/2013 09:10	E0AA9	
ME0AB0	Soil/ David Sena	Grab	CLP TAL Total Metals ICP-MS, Mercury, and Cyanide /14	5-17237 (None) (1)	CC-S013-(0-12)-072413	07/24/2013 10:00	E0AB0	
ME0AB1	Soil/ David Sena	Grab	CLP TAL Total Metals ICP-MS, Mercury, and Cyanide /14	5-17240 (None) (1)	CC-SO13-(0-12)-072413D	07/24/2013 10:05	E0AB1	
ME0AB2	Soil/ David Sena	Grab	CLP TAL Total Metals ICP-MS, Mercury, and Cyanide /14	5-17245 (None) (1)	CC-S014-(0-12)-072413	07/24/2013 10:45	E0AB2	
ME0AB3	Sediment/ David Sena	Grab	CLP TAL Total Metals ICP-MS, Mercury, and Cyanide /14	5-17249 (None) (1)	CC-SD08-(0-6)-072413	07/24/2013 15:00	E0AB3	
ME0AB4	Sediment/ David Sena	Grab	CLP TAL Total Metals ICP-MS, Mercury, and Cyanide /14	5-17253 (None) (1)	CC-SD08-(6-12)-072413	07/24/2013 15:05	E0AB4	
ME0AB5	Sediment/ David Sena	Grab	CLP TAL Total Metals ICP-MS, Mercury, and Cyanide /14	5-17257 (None) (1)	CC-SD07-(0-6)-072413	07/24/2013 15:45	E0AB5	
ME0AB6	Sediment/ David Sena	Grab	CLP TAL Total Metals ICP-MS, Mercury, and Cyanide /14	5-17261 (None) (1)	CC-SD07-(6-12)-072413	07/24/2013 15:50	E0AB6	
ME0AB7	Sediment/ David Sena	Grab	CLP TAL Total Metals ICP-MS, Mercury, and Cyanide /14	5-17265 (None) (1)	CC-SD09-(0-6)-072413	07/24/2013 16:20	E0AB7	
ME0AB8	Sediment/ David Sena	Grab	CLP TAL Total Metals ICP-MS, Mercury, and Cyanide /14	5-17269 (None) (1)	CC-SD09-(6-12)-072413	07/24/2013 16:25	E0AB8	

Sample(s) to be used for Lab QC: ME0AB2

TEMP: 4°C

Shipment for Case Complete? N

Samples Transferred From Chain of Custody # N/A

Analysis Key

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
	Dave Sena	7-24-13							John Tengco	7/25/13	1010

10

SDG# ME0AA5

USEPA CLP Inorganics COC (LAB COPY)

DateShipped: 7/24/2013
CarrierName: FedEx
AirbillNo:

CHAIN OF CUSTODY RECORD

Case #: 43638
Cooler #:

No: 5-072413-082121-0004
Lab: ChemTech Consulting Group
Lab Contact: Divya Mehta
Lab Phone: 908-789-8900

Inorganic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Organic Sample #	For Lab Use Only
ME0AB9	Sediment/ David Sena	Grab	CLP TAL Total Metals ICP-MS, Mercury, and Cyanide /14	5-17273 (None) (1)	CC-SD06-(0-6)-072413	07/24/2013 17:00	E0AB9	
ME0AC0	Sediment/ David Sena	Grab	CLP TAL Total Metals ICP-MS, Mercury, and Cyanide /14	5-17277 (N) (1)	CC-SD06-(6-12)-072413	07/24/2013 17:05	E0AC0	
ME0AC1	Sediment/ David Sena	Grab	CLP TAL Total Metals ICP-MS, Mercury, and Cyanide /14	5-17281 (None) (1)	CC-SD05-(0-6)-072413	07/24/2013 17:35	E0AC1	
ME0AC2	Sediment/ David Sena	Grab	CLP TAL Total Metals ICP-MS, Mercury, and Cyanide /14	5-17284 (None) (1)	CC-SD05-(6-12)-072413	07/24/2013 17:40	E0AC2	SDG-Final-SAMPL

Special Instructions:

TEMP: 4°C

Analysis Key

Shipment for Case Complete? N

Samples Transferred From Chain of Custody # N/A

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
	David Sena	7-24-13							JOHN TENGCO	7/25/13	1010

CHEMTECH
284 Sheffield Street
Mountainside, NJ 07092

SDG NARRATIVE

USEPA
SDG # ME0AA5
CASE # 43638
CONTRACT # EPW09038
LAB NAME: CHEMTECH CONSULTING GROUP
LAB CODE: CHEM
CHEMTECH PROJECT #E3034

A. Number of Samples and Date of Receipt

17 soil samples were delivered to the laboratory intact on 07/24/13 & 07/25/13.

B. Parameters

Test requested for Metals CLP Full = Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc & HG & CN.

C. Cooler Temp

Indicator Bottle: **Presence**/Absence
Cooler: 4°C & 5°C

D. Detail Documentation (related to Sample Handling Shipping, Analytical Problem, Temp of Cooler etc):

E. Corrective Action taken for above:

F. Analytical Techniques:

All analyses were based on CLP Methodology by method ISM01.3

G. Calculation:

Calculation example for ICP-AES Soil Sample:

Conversion of Results from mg/L or ppm to mg/kg (Dry Weight Basis):

Results reported in Mg/Kg = (Result in mg/L or ppm for ICP-AES) X 1000 X Fraction of % Solid (100/ % Solid) X Dilution Factor (if any) X Fraction of Sample Amount Taken in ICP-Soil Prep.

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Example of Fraction of Sample Amount Taken in ICP-AES Soil Prep = 1/10 (1.0 X10 or 0.50 X 20)
(if 1.0 g of sample taken during Digestion and the Final Volume was made to 100 ml or 0.5 g to Final Volume 50ml)

Or

Example of Fraction of Sample Amount Taken in ICP-AES Soil Prep = 1/10.2 (1.02 X 10 or

0.51

X 20)

(if 1.02 g of sample taken during Digestion and the Final Volume was made to 100 ml or 0.51 g to Final Volume 50ml)

Etc.

Calculation example for Hg Soil Sample:

Conversion of Results from ppb to mg/kg (Dry Weight Basis):

Results reported in Mg/Kg = (Result in ppb for Hg) X Fraction of % Solid (100/ % Solid) X Dilution Factor (if any) X Fraction of Sample Amount Taken in Prep.

Example of Fraction of Sample Amount Taken in Hg Soil Prep = 1/ 2 (0.2 X 10)

(if 0.2 g of sample taken during Digestion and the Final Volume was made to 100 ml)

Or

Example of Fraction of Sample Amount Taken in Hg Soil Prep = 1 / 2.1 (0.21 X 10)

(if 0.21 g of sample taken during Digestion and the Final Volume was made to 100 ml)

Etc.

Calculation example for CN Soil Sample:

Conversion of Results from Ug/L to mg/kg (Dry Weight Basis):

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Results reported in Mg/Kg = (Result in Ug/L for CN) X Fraction of % Solid (100/ % Solid) X Dilution

Factor (if any) X Fraction of Sample Amount Taken in Prep.

Example of Fraction of Sample Amount Taken in CN Soil Prep = 1/20 (1 X 20)

(if 1.0 g of sample taken during Digestion and the Final Volume was made to 50 ml)
Or

Example of Fraction of Sample Amount Taken in Hg Soil Prep = 1 / 20.2 (1.01 X 20)

(if 1.01 g of sample taken during Digestion and the Final Volume was made to 50 ml)

Etc.

H. QA/ QC

Calibrations met requirements. Interference check met requirements. Blank analyses did not indicate any presence of contamination. Laboratory Control sample was within control limits. Spike sample did meet requirements. Duplicate sample did meet requirements. Serial Dilution did meet requirements.

I certify that the data package is in compliance with the terms and conditions of the contract both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Director or his designee, as verified by the following signature.

Signature Raytheotha, K.L for Name: Mildred V. Reyes

Date 08/07/13 Title: Document Control Officer

US EPA-CLP

COVER PAGE

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No: 43638 Mod. Ref. No.: SDG No: ME0AA5

SOW No.: ISM01.3

EPA Sample No.	Lab Sample ID
ME0AA5	E3034-01
ME0AA6	E3034-02
ME0AA8	E3034-03
ME0AA9	E3034-04
ME0AB0	E3034-05
ME0AB1	E3034-06
ME0AB2	E3034-07
ME0AB2D	E3034-08
ME0AB2S	E3034-09
ME0AB3	E3034-10
ME0AB4	E3034-11
ME0AB5	E3034-12
ME0AB6	E3034-13
ME0AB7	E3034-14
ME0AB8	E3034-15
ME0AB9	E3034-16
ME0AC0	E3034-17

		ICP-AES	ICP-MS
Were ICP-AES and ICP-MS interelement corrections applied?	(Yes/No)	YES	N/A
Were ICP-AES and ICP-MS background corrections applied?	(Yes/No)	YES	N/A
If yes, were raw data generated before application of background corrections?	(Yes/No)	NO	N/A

The laboratory did not receive any instructions with this SDG to modify the SOW standard laboratory sample preparation procedures (e.g., subsampling). To aid in the determination of data usability with respect to project decisions, any modifications performed are described below.

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy Data Package and in the electronic data submitted has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Raythattha, K.L. for Name: MILDRED REYES

Date: 08/07/13 Title: DOCUMENT CONTROL OFFICER

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Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No: 43638 Mod. Ref. No.: SDG No: ME0AA5

SOW No.: ISM01.3

EPA Sample No.	Lab Sample ID
ME0AC1	E3034-18
ME0AC2	E3034-19

		ICP-AES	ICP-MS
Were ICP-AES and ICP-MS interelement corrections applied?	(Yes/No)	YES	N/A
Were ICP-AES and ICP-MS background corrections applied?	(Yes/No)	YES	N/A
If yes, were raw data generated before application of background corrections?	(Yes/No)	NO	N/A

The laboratory did not receive any instructions with this SDG to modify the SOW standard laboratory sample preparation procedures (e.g., subsampling). To aid in the determination of data usability with respect to project decisions, any modifications performed are described below.

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy Data Package and in the electronic data submitted has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Raghunathan, K.L. for Name: MILDRED REYES

Date: 08/07/13 Title: DOCUMENT CONTROL OFFICER

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1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME0AA5

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No SDG No.: ME0AA5

Matrix: SOIL Lab Sample ID: E3034-01

% Solids: 91.2 Date Received: 07/24/2013

Concentration Units (ug/L, ug, or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8520			P
7440-36-0	Antimony	1.5	J		P
7440-38-2	Arsenic	19.0			P
7440-39-3	Barium	240			P
7440-41-7	Beryllium	0.83			P
7440-43-9	Cadmium	2.3			P
7440-70-2	Calcium	12100			P
7440-47-3	Chromium	13.0			P
7440-48-4	Cobalt	20.2			P
7440-50-8	Copper	12.5			P
7439-89-6	Iron	47800			P
7439-92-1	Lead	34.5			P
7439-95-4	Magnesium	7280			P
7439-96-5	Manganese	4370		D	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	28.4			P
7440-09-7	Potassium	799			P
7782-49-2	Selenium	4.1			P
7440-22-4	Silver	4.5			P
7440-23-5	Sodium	215	J		P
7440-28-0	Thallium	2.0	U		P
7440-62-2	Vanadium	25.5			P
7440-66-6	Zinc	35.1			P
57-12-5	Cyanide	0.55	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts: NO

Comments:

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1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME0AA6

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No SDG No.: ME0AA5

Matrix: SOIL Lab Sample ID: E3034-02

% Solids: 94.4 Date Received: 07/24/2013

Concentration Units (ug/L, ug, or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4300			P
7440-36-0	Antimony	4.6	U		P
7440-38-2	Arsenic	3.8			P
7440-39-3	Barium	54.1			P
7440-41-7	Beryllium	0.26	J		P
7440-43-9	Cadmium	0.35	J		P
7440-70-2	Calcium	1680			P
7440-47-3	Chromium	7.6			P
7440-48-4	Cobalt	2.3	J		P
7440-50-8	Copper	6.4			P
7439-89-6	Iron	9190			P
7439-92-1	Lead	14.0			P
7439-95-4	Magnesium	883			P
7439-96-5	Manganese	262			P
7439-97-6	Mercury	0.096	U		CV
7440-02-0	Nickel	5.9			P
7440-09-7	Potassium	429			P
7782-49-2	Selenium	1.3	J		P
7440-22-4	Silver	0.87			P
7440-23-5	Sodium	82.4	J		P
7440-28-0	Thallium	1.9	U		P
7440-62-2	Vanadium	11.9			P
7440-66-6	Zinc	31.5			P
57-12-5	Cyanide	0.53	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts: NO

Comments:

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1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME0AA8

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No SDG No.: ME0AA5

Matrix: SOIL Lab Sample ID: E3034-03

% Solids: 94.8 Date Received: 07/25/2013

Concentration Units (ug/L, ug, or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4760			P
7440-36-0	Antimony	0.21	J		P
7440-38-2	Arsenic	3.9			P
7440-39-3	Barium	81.3			P
7440-41-7	Beryllium	0.33	J		P
7440-43-9	Cadmium	0.42			P
7440-70-2	Calcium	58400			P
7440-47-3	Chromium	7.0			P
7440-48-4	Cobalt	5.7			P
7440-50-8	Copper	9.5			P
7439-89-6	Iron	9390			P
7439-92-1	Lead	13.0			P
7439-95-4	Magnesium	34000			P
7439-96-5	Manganese	649			P
7439-97-6	Mercury	0.098	U		CV
7440-02-0	Nickel	7.6			P
7440-09-7	Potassium	1180			P
7782-49-2	Selenium	0.90	J		P
7440-22-4	Silver	0.85			P
7440-23-5	Sodium	154	J		P
7440-28-0	Thallium	2.0	U		P
7440-62-2	Vanadium	14.0			P
7440-66-6	Zinc	69.1			P
57-12-5	Cyanide	0.53	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts: NO

Comments:

US EPA-CLP

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME0AA9

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No SDG No.: ME0AA5

Matrix: SOIL Lab Sample ID: E3034-04

% Solids: 91.4 Date Received: 07/25/2013

Concentration Units (ug/L, ug, or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4860			P
7440-36-0	Antimony	0.17	J		P
7440-38-2	Arsenic	3.4			P
7440-39-3	Barium	71.7			P
7440-41-7	Beryllium	0.28	J		P
7440-43-9	Cadmium	0.30	J		P
7440-70-2	Calcium	2030			P
7440-47-3	Chromium	7.2			P
7440-48-4	Cobalt	4.0	J		P
7440-50-8	Copper	6.7			P
7439-89-6	Iron	8220			P
7439-92-1	Lead	14.7			P
7439-95-4	Magnesium	1550			P
7439-96-5	Manganese	513			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.5			P
7440-09-7	Potassium	819			P
7782-49-2	Selenium	1.1	J		P
7440-22-4	Silver	0.78	J		P
7440-23-5	Sodium	85.9	J		P
7440-28-0	Thallium	2.0	U		P
7440-62-2	Vanadium	13.7			P
7440-66-6	Zinc	37.0			P
57-12-5	Cyanide	0.55	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts: NO

Comments:

US EPA-CLP

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME0AB0

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No SDG No.: ME0AA5

Matrix: SOIL Lab Sample ID: E3034-05

% Solids: 94.6 Date Received: 07/25/2013

Concentration Units (ug/L, ug, or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3450			P
7440-36-0	Antimony	0.28	J		P
7440-38-2	Arsenic	2.7			P
7440-39-3	Barium	57.2			P
7440-41-7	Beryllium	0.21	J		P
7440-43-9	Cadmium	0.36	J		P
7440-70-2	Calcium	1770			P
7440-47-3	Chromium	5.6			P
7440-48-4	Cobalt	2.2	J		P
7440-50-8	Copper	12.1			P
7439-89-6	Iron	7510			P
7439-92-1	Lead	13.0			P
7439-95-4	Magnesium	840			P
7439-96-5	Manganese	206			P
7439-97-6	Mercury	0.098	U		CV
7440-02-0	Nickel	4.2			P
7440-09-7	Potassium	527			P
7782-49-2	Selenium	1.2	J		P
7440-22-4	Silver	0.72	J		P
7440-23-5	Sodium	67.2	J		P
7440-28-0	Thallium	2.0	U		P
7440-62-2	Vanadium	10.2			P
7440-66-6	Zinc	39.9			P
57-12-5	Cyanide	0.53	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts: NO

Comments:

US EPA-CLP

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME0AB1

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No SDG No.: ME0AA5

Matrix: SOIL Lab Sample ID: E3034-06

% Solids: 94.5 Date Received: 07/25/2013

Concentration Units (ug/L, ug, or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3530			P
7440-36-0	Antimony	4.5	U		P
7440-38-2	Arsenic	2.6			P
7440-39-3	Barium	59.5			P
7440-41-7	Beryllium	0.22	J		P
7440-43-9	Cadmium	0.35	J		P
7440-70-2	Calcium	1840			P
7440-47-3	Chromium	5.5			P
7440-48-4	Cobalt	2.5	J		P
7440-50-8	Copper	11.9			P
7439-89-6	Iron	7380			P
7439-92-1	Lead	13.2			P
7439-95-4	Magnesium	895			P
7439-96-5	Manganese	252			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	4.3			P
7440-09-7	Potassium	540			P
7782-49-2	Selenium	1.1	J		P
7440-22-4	Silver	0.72	J		P
7440-23-5	Sodium	63.9	J		P
7440-28-0	Thallium	1.9	U		P
7440-62-2	Vanadium	10.1			P
7440-66-6	Zinc	39.1			P
57-12-5	Cyanide	0.53	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts: NO

Comments:

US EPA-CLP

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME0AB2

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No SDG No.: ME0AA5

Matrix: SOIL Lab Sample ID: E3034-07

% Solids: 98.0 Date Received: 07/25/2013

Concentration Units (ug/L, ug, or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1910			P
7440-36-0	Antimony	4.7	U		P
7440-38-2	Arsenic	1.2			P
7440-39-3	Barium	23.2			P
7440-41-7	Beryllium	0.05	J		P
7440-43-9	Cadmium	0.11	J		P
7440-70-2	Calcium	1720			P
7440-47-3	Chromium	3.0			P
7440-48-4	Cobalt	1.1	J		P
7440-50-8	Copper	3.3			P
7439-89-6	Iron	3620			P
7439-92-1	Lead	5.8			P
7439-95-4	Magnesium	867			P
7439-96-5	Manganese	75.6			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.4	J		P
7440-09-7	Potassium	281	J		P
7782-49-2	Selenium	0.41	J		P
7440-22-4	Silver	0.32	J		P
7440-23-5	Sodium	50.3	J		P
7440-28-0	Thallium	1.9	U		P
7440-62-2	Vanadium	4.4			P
7440-66-6	Zinc	20.6			P
57-12-5	Cyanide	0.51	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts: NO

Comments:

US EPA-CLP

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME0AB3

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No SDG No.: ME0AA5

Matrix: SOIL Lab Sample ID: E3034-10

% Solids: 69.7 Date Received: 07/25/2013

Concentration Units (ug/L, ug, or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6940			P
7440-36-0	Antimony	6.8	U		P
7440-38-2	Arsenic	4.4			P
7440-39-3	Barium	66.9			P
7440-41-7	Beryllium	0.42	J		P
7440-43-9	Cadmium	0.68			P
7440-70-2	Calcium	38000			P
7440-47-3	Chromium	12.6			P
7440-48-4	Cobalt	8.0			P
7440-50-8	Copper	11.4			P
7439-89-6	Iron	15900			P
7439-92-1	Lead	14.8			P
7439-95-4	Magnesium	14900			P
7439-96-5	Manganese	532			P
7439-97-6	Mercury	0.14	U		CV
7440-02-0	Nickel	17.9			P
7440-09-7	Potassium	832			P
7782-49-2	Selenium	1.9	J		P
7440-22-4	Silver	1.5			P
7440-23-5	Sodium	151	J		P
7440-28-0	Thallium	2.8	U		P
7440-62-2	Vanadium	15.7			P
7440-66-6	Zinc	61.9			P
57-12-5	Cyanide	0.72	U		AS

Color Before: GREY Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts: NO

Comments:

US EPA-CLP

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME0AB4

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No SDG No.: ME0AA5

Matrix: SOIL Lab Sample ID: E3034-11

% Solids: 75.6 Date Received: 07/25/2013

Concentration Units (ug/L, ug, or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8770			P
7440-36-0	Antimony	0.33	J		P
7440-38-2	Arsenic	4.0			P
7440-39-3	Barium	49.4			P
7440-41-7	Beryllium	0.53			P
7440-43-9	Cadmium	0.68			P
7440-70-2	Calcium	42000			P
7440-47-3	Chromium	15.8			P
7440-48-4	Cobalt	11.2			P
7440-50-8	Copper	18.7			P
7439-89-6	Iron	18100			P
7439-92-1	Lead	13.3			P
7439-95-4	Magnesium	21800			P
7439-96-5	Manganese	608			P
7439-97-6	Mercury	0.13	U		CV
7440-02-0	Nickel	25.7			P
7440-09-7	Potassium	1400			P
7782-49-2	Selenium	2.2	J		P
7440-22-4	Silver	1.6			P
7440-23-5	Sodium	169	J		P
7440-28-0	Thallium	2.3	U		P
7440-62-2	Vanadium	19.6			P
7440-66-6	Zinc	63.1			P
57-12-5	Cyanide	0.66	U		AS

Color Before: GREY Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts: NO

Comments:

US EPA-CLP

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME0AB5

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No SDG No.: ME0AA5

Matrix: SOIL Lab Sample ID: E3034-12

% Solids: 73.4 Date Received: 07/25/2013

Concentration Units (ug/L, ug, or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3170			P
7440-36-0	Antimony	0.26	J		P
7440-38-2	Arsenic	3.9			P
7440-39-3	Barium	40.6			P
7440-41-7	Beryllium	0.23	J		P
7440-43-9	Cadmium	0.40	J		P
7440-70-2	Calcium	24100			P
7440-47-3	Chromium	5.9			P
7440-48-4	Cobalt	3.8	J		P
7440-50-8	Copper	6.1			P
7439-89-6	Iron	9480			P
7439-92-1	Lead	11.0			P
7439-95-4	Magnesium	9760			P
7439-96-5	Manganese	237			P
7439-97-6	Mercury	0.13	U		CV
7440-02-0	Nickel	7.3			P
7440-09-7	Potassium	390	J		P
7782-49-2	Selenium	1.3	J		P
7440-22-4	Silver	0.91	J		P
7440-23-5	Sodium	89.1	J		P
7440-28-0	Thallium	2.3	U		P
7440-62-2	Vanadium	8.7			P
7440-66-6	Zinc	33.3			P
57-12-5	Cyanide	0.68	U		AS

Color Before: GREY Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts: NO

Comments:

US EPA-CLP

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME0AB6

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No SDG No.: ME0AA5

Matrix: SOIL Lab Sample ID: E3034-13

% Solids: 62.4 Date Received: 07/25/2013

Concentration Units (ug/L, ug, or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7450			P
7440-36-0	Antimony	0.32	J		P
7440-38-2	Arsenic	6.5			P
7440-39-3	Barium	84.2			P
7440-41-7	Beryllium	0.49	J		P
7440-43-9	Cadmium	0.81			P
7440-70-2	Calcium	26200			P
7440-47-3	Chromium	12.6			P
7440-48-4	Cobalt	7.2			P
7440-50-8	Copper	14.8			P
7439-89-6	Iron	17100			P
7439-92-1	Lead	22.3			P
7439-95-4	Magnesium	8530			P
7439-96-5	Manganese	317			P
7439-97-6	Mercury	0.077	J		CV
7440-02-0	Nickel	17.2			P
7440-09-7	Potassium	843			P
7782-49-2	Selenium	2.5	J		P
7440-22-4	Silver	1.6			P
7440-23-5	Sodium	130	J		P
7440-28-0	Thallium	3.3	U		P
7440-62-2	Vanadium	17.3			P
7440-66-6	Zinc	73.3			P
57-12-5	Cyanide	0.80	U		AS

Color Before: GREY Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts: NO

Comments:

US EPA-CLP

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME0AB7

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No SDG No.: ME0AA5

Matrix: SOIL Lab Sample ID: E3034-14

% Solids: 59.3 Date Received: 07/25/2013

Concentration Units (ug/L, ug, or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4980			P
7440-36-0	Antimony	0.33	J		P
7440-38-2	Arsenic	5.6			P
7440-39-3	Barium	52.3			P
7440-41-7	Beryllium	0.27	J		P
7440-43-9	Cadmium	0.59	J		P
7440-70-2	Calcium	34200			P
7440-47-3	Chromium	8.6			P
7440-48-4	Cobalt	5.9	J		P
7440-50-8	Copper	10.7			P
7439-89-6	Iron	14200			P
7439-92-1	Lead	12.8			P
7439-95-4	Magnesium	12100			P
7439-96-5	Manganese	327			P
7439-97-6	Mercury	0.14	U		CV
7440-02-0	Nickel	12.7			P
7440-09-7	Potassium	633			P
7782-49-2	Selenium	2.0	J		P
7440-22-4	Silver	1.3			P
7440-23-5	Sodium	123	J		P
7440-28-0	Thallium	3.0	U		P
7440-62-2	Vanadium	12.9			P
7440-66-6	Zinc	51.8			P
57-12-5	Cyanide	0.84	U		AS

Color Before: GREY Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts: NO

Comments:

US EPA-CLP

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME0AB8

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No SDG No.: ME0AA5

Matrix: SOIL Lab Sample ID: E3034-15

% Solids: 76.8 Date Received: 07/25/2013

Concentration Units (ug/L, ug, or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3940			P
7440-36-0	Antimony	0.22	J		P
7440-38-2	Arsenic	3.6			P
7440-39-3	Barium	20.5			P
7440-41-7	Beryllium	0.35	J		P
7440-43-9	Cadmium	0.42	J		P
7440-70-2	Calcium	51100			P
7440-47-3	Chromium	7.2			P
7440-48-4	Cobalt	5.8			P
7440-50-8	Copper	8.9			P
7439-89-6	Iron	10100			P
7439-92-1	Lead	9.3			P
7439-95-4	Magnesium	27700			P
7439-96-5	Manganese	177			P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	11.5			P
7440-09-7	Potassium	605			P
7782-49-2	Selenium	1.4	J		P
7440-22-4	Silver	0.91	J		P
7440-23-5	Sodium	127	J		P
7440-28-0	Thallium	2.3	U		P
7440-62-2	Vanadium	11.2			P
7440-66-6	Zinc	40.5			P
57-12-5	Cyanide	0.65	U		AS

Color Before: GREY Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts: NO

Comments:

US EPA-CLP

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME0AB9

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No SDG No.: ME0AA5

Matrix: SOIL Lab Sample ID: E3034-16

% Solids: 73.2 Date Received: 07/25/2013

Concentration Units (ug/L, ug, or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3170			P
7440-36-0	Antimony	6.5	U		P
7440-38-2	Arsenic	2.4			P
7440-39-3	Barium	56.2			P
7440-41-7	Beryllium	0.29	J		P
7440-43-9	Cadmium	0.41	J		P
7440-70-2	Calcium	62000			P
7440-47-3	Chromium	6.8			P
7440-48-4	Cobalt	3.9	J		P
7440-50-8	Copper	4.3			P
7439-89-6	Iron	8510			P
7439-92-1	Lead	5.4			P
7439-95-4	Magnesium	9590			P
7439-96-5	Manganese	545			P
7439-97-6	Mercury	0.13	U		CV
7440-02-0	Nickel	7.5			P
7440-09-7	Potassium	432	J		P
7782-49-2	Selenium	1.1	J		P
7440-22-4	Silver	0.76	J		P
7440-23-5	Sodium	102	J		P
7440-28-0	Thallium	2.7	U		P
7440-62-2	Vanadium	10.3			P
7440-66-6	Zinc	24.2			P
57-12-5	Cyanide	0.31	J		AS

Color Before: GREY Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts: NO

Comments:

US EPA-CLP

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME0AC0

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No SDG No.: ME0AA5

Matrix: SOIL Lab Sample ID: E3034-17

% Solids: 75.9 Date Received: 07/25/2013

Concentration Units (ug/L, ug, or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	11900			P
7440-36-0	Antimony	0.50	J		P
7440-38-2	Arsenic	7.9			P
7440-39-3	Barium	13.3	J		P
7440-41-7	Beryllium	0.43	J		P
7440-43-9	Cadmium	0.98			P
7440-70-2	Calcium	59600			P
7440-47-3	Chromium	19.1			P
7440-48-4	Cobalt	14.8			P
7440-50-8	Copper	18.5			P
7439-89-6	Iron	31200			P
7439-92-1	Lead	17.3			P
7439-95-4	Magnesium	19200			P
7439-96-5	Manganese	514			P
7439-97-6	Mercury	0.13	U		CV
7440-02-0	Nickel	35.3			P
7440-09-7	Potassium	2290			P
7782-49-2	Selenium	3.3	J		P
7440-22-4	Silver	2.7			P
7440-23-5	Sodium	301	J		P
7440-28-0	Thallium	2.7	U		P
7440-62-2	Vanadium	13.0			P
7440-66-6	Zinc	60.3			P
57-12-5	Cyanide	0.66	U		AS

Color Before: GREY Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts: NO

Comments:

US EPA-CLP

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME0AC1

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No SDG No.: ME0AA5

Matrix: SOIL Lab Sample ID: E3034-18

% Solids: 82.4 Date Received: 07/25/2013

Concentration Units (ug/L, ug, or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1130			P
7440-36-0	Antimony	6.1	U		P
7440-38-2	Arsenic	1.8			P
7440-39-3	Barium	12.9	J		P
7440-41-7	Beryllium	0.09	J		P
7440-43-9	Cadmium	0.14	J		P
7440-70-2	Calcium	15400			P
7440-47-3	Chromium	2.5			P
7440-48-4	Cobalt	1.9	J		P
7440-50-8	Copper	1.8	J		P
7439-89-6	Iron	5330			P
7439-92-1	Lead	2.6			P
7439-95-4	Magnesium	5130			P
7439-96-5	Manganese	198			P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	3.5	J		P
7440-09-7	Potassium	190	J		P
7782-49-2	Selenium	0.64	J		P
7440-22-4	Silver	0.45	J		P
7440-23-5	Sodium	84.5	J		P
7440-28-0	Thallium	2.5	U		P
7440-62-2	Vanadium	4.9	J		P
7440-66-6	Zinc	10.7			P
57-12-5	Cyanide	0.61	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts: NO

Comments:

US EPA-CLP

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME0AC2

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No SDG No.: ME0AA5

Matrix: SOIL Lab Sample ID: E3034-19

% Solids: 83.1 Date Received: 07/25/2013

Concentration Units (ug/L, ug, or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8980			P
7440-36-0	Antimony	0.32	J		P
7440-38-2	Arsenic	5.6			P
7440-39-3	Barium	10.5	J		P
7440-41-7	Beryllium	0.38	J		P
7440-43-9	Cadmium	0.72			P
7440-70-2	Calcium	44500			P
7440-47-3	Chromium	14.3			P
7440-48-4	Cobalt	10.9			P
7440-50-8	Copper	14.0			P
7439-89-6	Iron	23300			P
7439-92-1	Lead	13.0			P
7439-95-4	Magnesium	14300			P
7439-96-5	Manganese	383			P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	26.1			P
7440-09-7	Potassium	1780			P
7782-49-2	Selenium	2.6	J		P
7440-22-4	Silver	2.0			P
7440-23-5	Sodium	231	J		P
7440-28-0	Thallium	2.1	U		P
7440-62-2	Vanadium	9.7			P
7440-66-6	Zinc	45.7			P
57-12-5	Cyanide	0.60	U		AS

Color Before: GREY Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts: NO

Comments:

US EPA-CLP

3-IN
BLANKS

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No.: SDG No.: ME0AA5

Preparation Blank Matrix (soil/water/wipe/filter): SOIL

Preparation Blank Concentration Units (ug/L, ug, or mg/kg): MG/KG

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		
		C	1	C	2	C	3	C		C	M
Cyanide	10.0000	U	10.0000	U	10.0000	U			0.500	U	AS

US EPA-CLP

3-IN
BLANKS

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No.: _____ SDG No.: ME0AA5

Preparation Blank Matrix (soil/water/wipe/filter): SOIL

Preparation Blank Concentration Units (ug/L, ug, or mg/kg): MG/KG

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		
		C	1	C	2	C	3	C		C	M
Mercury	-0.076	J	-0.084	J	-0.069	J	-0.088	J	-0.0259	J	CV

US EPA-CLP

3-IN
BLANKS

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No.: _____ SDG No.: ME0AA5

Preparation Blank Matrix (soil/water/wipe/filter): _____

Preparation Blank Concentration Units (ug/L, ug, or mg/kg): _____

	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		
Analyte		C	1	C	2	C	3	C		C	M
Mercury			-0.059	J							CV

US EPA-CLP

3-IN
BLANKS

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No.: SDG No.: ME0AA5

Preparation Blank Matrix (soil/water/wipe/filter): SOIL

Preparation Blank Concentration Units (ug/L, ug, or mg/kg): MG/KG

Analyte	Initial Calibration Blank(ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		
		C	1	C	2	C	3	C		C	M
Aluminum	200.000	U	200.000	U	200.000	U	200.000	U	20.000	U	P
Antimony	60.000	U	60.000	U	60.000	U	60.000	U	6.000	U	P
Arsenic	10.000	U	10.000	U	10.000	U	10.000	U	1.000	U	P
Barium	200.000	U	200.000	U	200.000	U	200.000	U	20.000	U	P
Beryllium	5.000	U	5.000	U	5.000	U	5.000	U	0.500	U	P
Cadmium	5.000	U	5.000	U	0.253	J	0.273	J	0.500	U	P
Calcium	5000.000	U	5000.000	U	13.093	J	9.733	J	500.000	U	P
Chromium	10.000	U	10.000	U	10.000	U	10.000	U	1.000	U	P
Cobalt	50.000	U	50.000	U	50.000	U	50.000	U	5.000	U	P
Copper	25.000	U	25.000	U	25.000	U	25.000	U	2.500	U	P
Iron	100.000	U	100.000	U	100.000	U	100.000	U	-1.092	J	P
Lead	10.000	U	10.000	U	2.662	J	3.194	J	1.000	U	P
Magnesium	5000.000	U	5000.000	U	5000.000	U	5000.000	U	500.000	U	P
Manganese	15.000	U	15.000	U	15.000	U	15.000	U	1.500	U	P
Nickel	40.000	U	40.000	U	0.609	J	40.000	U	4.000	U	P
Potassium	5000.000	U	5000.000	U	111.994	J	451.204	J	37.778	J	P
Selenium	35.000	U	35.000	U	35.000	U	35.000	U	3.500	U	P
Silver	10.000	U	10.000	U	10.000	U	10.000	U	1.000	U	P
Sodium	5000.000	U	5000.000	U	5000.000	U	5000.000	U	500.000	U	P
Thallium	25.000	U	1.584	J	1.801	J	25.000	U	2.500	U	P
Vanadium	50.000	U	50.000	U	50.000	U	50.000	U	5.000	U	P
Zinc	60.000	U	60.000	U	60.000	U	60.000	U	6.000	U	P

US EPA-CLP

3-IN
BLANKS

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No.: SDG No.: ME0AA5

Preparation Blank Matrix (soil/water/wipe/filter):

Preparation Blank Concentration Units (ug/L, ug, or mg/kg):

Analyte	Initial Calibration Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Aluminum			200.000	U	200.000	U	200.000	U			P
Antimony			60.000	U	60.000	U	60.000	U			P
Arsenic			10.000	U	10.000	U	10.000	U			P
Barium			200.000	U	200.000	U	200.000	U			P
Beryllium			5.000	U	5.000	U	5.000	U			P
Cadmium			0.308	J	0.375	J	0.089	J			P
Calcium			22.094	J	5000.000	U	5000.000	U			P
Chromium			10.000	U	10.000	U	10.000	U			P
Cobalt			50.000	U	50.000	U	50.000	U			P
Copper			25.000	U	25.000	U	25.000	U			P
Iron			100.000	U	100.000	U	100.000	U			P
Lead			4.325	J	4.006	J	10.000	U			P
Magnesium			5000.000	U	5000.000	U	5000.000	U			P
Manganese			1.158	J	15.000	U	15.000	U			P
Nickel			0.457	J	40.000	U	40.000	U			P
Potassium			553.850	J	515.641	J	433.792	J			P
Selenium			35.000	U	35.000	U	35.000	U			P
Silver			10.000	U	10.000	U	10.000	U			P
Sodium			5000.000	U	5000.000	U	5000.000	U			P
Thallium			1.335	J	1.565	J	2.177	J			P
Vanadium			50.000	U	50.000	U	50.000	U			P
Zinc			60.000	U	60.000	U	60.000	U			P

US EPA-CLP

3-IN
BLANKS

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No.: SDG No.: ME0AA5

Preparation Blank Matrix (soil/water/wipe/filter):

Preparation Blank Concentration Units (ug/L, ug, or mg/kg):

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		
		C	1	C	2	C	3	C		C	M
Aluminum			200.000	U							P
Antimony			60.000	U							P
Arsenic			10.000	U							P
Barium			200.000	U							P
Beryllium			5.000	U							P
Cadmium			5.000	U							P
Calcium			5000.000	U							P
Chromium			10.000	U							P
Cobalt			50.000	U							P
Copper			25.000	U							P
Iron			100.000	U							P
Lead			10.000	U							P
Magnesium			5000.000	U							P
Manganese			15.000	U							P
Nickel			40.000	U							P
Potassium			394.851	J							P
Selenium			35.000	U							P
Silver			10.000	U							P
Sodium			5000.000	U							P
Thallium			1.868	J							P
Vanadium			50.000	U							P
Zinc			60.000	U							P

US EPA-CLP

3-IN
BLANKS

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No.: _____ SDG No.: ME0AA5

Preparation Blank Matrix (soil/water/wipe/filter): _____

Preparation Blank Concentration Units (ug/L, ug, or mg/kg): _____

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		
		C	1	C	2	C	3	C		C	M
Manganese	15.000	U	15.000	U	15.000	U	15.000	U			P

US EPA-CLP

5A-IN

MATRIX SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

ME0AB2S

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No.: SDG No.: ME0AA5

Matrix: SOIL

% Solids for Sample: 98.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Antimony	75 - 125	15.7269		4.6033	U	19.25	82		P
Arsenic	75 - 125	8.6942		1.2050		7.70	97		P
Barium	75 - 125	452.7315		23.2126		385.06	112		P
Beryllium	75 - 125	10.0029		0.4813	U	9.63	104		P
Cadmium	75 - 125	10.1595		0.1088	J	9.63	104		P
Chromium	75 - 125	45.7181		2.9688		38.51	111		P
Cobalt	75 - 125	102.5495		1.1439	J	96.26	105		P
Copper	75 - 125	55.5071		3.3037		48.13	108		P
Lead	75 - 125	9.8690		5.8011		3.85	106		P
Manganese	75 - 125	177.4436		75.5653		96.26	106		P
Mercury	75 - 125	0.4660		0.1020	U	0.5102	91		CV
Nickel	75 - 125	105.5408		2.4310	J	96.26	107		P
Selenium	75 - 125	9.9033		0.4079	J	9.63	99		P
Silver	75 - 125	10.0633		0.3197	J	9.63	101		P
Thallium	75 - 125	11.0036		1.9181	U	9.63	114		P
Vanadium	75 - 125	109.2817		4.4060	J	96.26	109		P
Zinc	75 - 125	115.2634		20.5996		96.26	98		P
Cyanide	75 - 125	5.1635		0.5087	U	5.087	102		AS

Comments:

5B-IN

POST-DIGESTION SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

Lab Name: _____ Contract: _____

Lab Code: _____ Case No.: _____ Mod. Ref. No.: _____ SDG No.: _____

Matrix: _____

Concentration Units: (ug/L or mg/Kg dry weight):

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M

Comments:

_____

_____

_____

US EPA-CLP

6-IN

DUPLICATES

EPA SAMPLE NO.

ME0AB2D

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No.: SDG No.: ME0AA5

Matrix: SOIL

% Solids for Sample: 98.0

Concentration Units: (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		1910.2050		1907.9610		0		P
Antimony		4.6033	U	4.6033	U			P
Arsenic	0.7672	1.2050		1.3750		13		P
Barium	15.3445	23.2126		23.3097		0		P
Beryllium		0.0483	J	0.0721	J	40		P
Cadmium		0.1088	J	0.1090	J	0		P
Calcium	383.6121	1719.5790		1863.1950		8		P
Chromium	0.7672	2.9688		2.9244		2		P
Cobalt		1.1439	J	1.1474	J	0		P
Copper	1.9181	3.3037		3.3314		1		P
Iron		3619.4300		3557.6060		2		P
Lead		5.8011		5.8477		1		P
Magnesium	383.6121	867.1422		943.3566		8		P
Manganese		75.5653		73.8747		2		P
Mercury		0.1020	U	0.1020	U			CV
Nickel		2.4310	J	2.3874	J	2		P
Potassium		280.7380	J	270.9012	J	4		P
Selenium		0.4079	J	0.5040	J	21		P
Silver		0.3197	J	0.3311	J	4		P
Sodium		50.2545	J	38.0761	J	28		P
Thallium		1.9181	U	1.9181	U			P
Vanadium	3.8361	4.4060		4.3038		2		P
Zinc	4.6033	20.5996		19.5328		5		P
Cyanide		0.5089	U	0.5089	U			AS

US EPA-CLP

9-IN

METHOD DETECTION LIMITS (MDL) (ANNUALLY)

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No. _____ SDG No.: ME0AA5

Instrument Type: AS Instrument ID: CN Date: 01/03/2013

Preparation Method: Midi-distillation

Concentration Units (ug/L, mg/kg, or ug): UG/L

Analyte	Wavelength/Mass	MDL
Cyanide	578.00	1.8

Comments: _____

US EPA-CLP

9-IN

METHOD DETECTION LIMITS (MDL) (ANNUALLY)

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No. _____ SDG No.: ME0AA5

Instrument Type: AS Instrument ID: CN Date: 01/03/2013

Preparation Method: Midi-distillation

Concentration Units (ug/L, mg/kg, or ug): MG/KG

Analyte	Wavelength/Mass	MDL
Cyanide	578.00	0.084

Comments: _____

US EPA-CLP

9-IN

METHOD DETECTION LIMITS (MDL) (ANNUALLY)

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No. _____ SDG No.: ME0AA5

Instrument Type: P Instrument ID: P5 Date: 01/16/2013

Preparation Method: 200.7

Concentration Units (ug/L, mg/kg, or ug): UG/L

Analyte	Wavelength/Mass	MDL
Aluminum	396.10	22.5
Antimony	206.83	2.4
Arsenic	189.04	2.7
Barium	493.41	1.6
Beryllium	234.80	0.85
Cadmium	214.40	0.083
Calcium	373.60	9.7
Chromium	267.72	4.5
Cobalt	228.62	0.59
Copper	324.75	3.4
Iron	259.80	9.7
Lead	220.35	1.8
Magnesium	279.08	42.6
Manganese	257.61	0.88
Nickel	231.60	0.44
Potassium	769.80	93.5
Selenium	196.02	4.4
Silver	328.07	0.59
Sodium	818.30	196
Thallium	190.86	1.0
Vanadium	292.40	5.7
Zinc	213.80	8.4

Comments: _____

US EPA-CLP

9-IN

METHOD DETECTION LIMITS (MDL) (ANNUALLY)

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No. _____ SDG No.: ME0AA5

Instrument Type: P Instrument ID: P5 Date: 01/16/2013

Preparation Method: 3050B

Concentration Units (ug/L, mg/kg, or ug): MG/KG

Analyte	Wavelength/Mass	MDL
Aluminum	396.10	1.7
Antimony	206.83	0.20
Arsenic	189.04	0.29
Barium	493.41	0.28
Beryllium	234.80	0.056
Cadmium	214.40	0.0094
Calcium	373.60	1.3
Chromium	267.72	0.45
Cobalt	228.62	0.036
Copper	324.75	0.39
Iron	259.80	0.81
Lead	220.35	0.071
Magnesium	279.08	3.5
Manganese	257.61	0.062
Nickel	231.60	0.058
Potassium	769.80	14.6
Selenium	196.02	0.35
Silver	328.07	0.035
Sodium	818.30	44.2
Thallium	190.86	0.23
Vanadium	292.40	0.39
Zinc	213.80	0.59

Comments: _____

US EPA-CLP

9-IN

METHOD DETECTION LIMITS (MDL) (ANNUALLY)

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No. _____ SDG No.: ME0AA5

Instrument Type: CV Instrument ID: CV1 Date: 01/10/2013

Preparation Method: 7470A

Concentration Units (ug/L, mg/kg, or ug): UG/L

Analyte	Wavelength/Mass	MDL
Mercury	253.70	0.011

Comments:

US EPA-CLP

9-IN

METHOD DETECTION LIMITS (MDL) (ANNUALLY)

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No. _____ SDG No.: ME0AA5

Instrument Type: CV Instrument ID: CV1 Date: 01/10/2013

Preparation Method: 7471B

Concentration Units (ug/L, mg/kg, or ug): MG/KG

Analyte	Wavelength/Mass	MDL
Mercury	253.70	0.0082

Comments:

US EPA-CLP

12-IN

PREPARATION LOG

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No. SDG No.: ME0AA5

Preparation Method: 3050B

EPA Sample No.	Preparation Date	Initial Weight/Volume (g) or (mL)	Final Volume (mL)
PBS01	07/26/2013	1.00	100
ME0AA5	07/26/2013	1.34	100
ME0AA6	07/26/2013	1.38	100
ME0AA8	07/26/2013	1.31	100
ME0AA9	07/26/2013	1.34	100
ME0AB0	07/26/2013	1.30	100
ME0AB1	07/26/2013	1.42	100
LCS01	07/26/2013	1.00	100
ME0AB2	07/26/2013	1.31	100
ME0AB2D	07/26/2013	1.33	100
ME0AB2S	07/26/2013	1.06	100
ME0AB3	07/26/2013	1.27	100
ME0AB4	07/26/2013	1.44	100
ME0AB5	07/26/2013	1.46	100
ME0AB6	07/26/2013	1.22	100
ME0AB7	07/26/2013	1.39	100
ME0AB8	07/26/2013	1.42	100
ME0AB9	07/26/2013	1.27	100
ME0AC0	07/26/2013	1.24	100
ME0AC1	07/26/2013	1.20	100
ME0AC2	07/26/2013	1.46	100

US EPA-CLP

12-IN

PREPARATION LOG

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No. SDG No.: ME0AA5

Preparation Method: Midi-distillation

EPA Sample No.	Preparation Date	Initial Weight/Volume (g) or (mL)	Final Volume (mL)
S0	07/26/2013	50.00	50
S5.0	07/26/2013	50.00	50
S10.0	07/26/2013	50.00	50
S100.0	07/26/2013	50.00	50
S250.0	07/26/2013	50.00	50
S500.0	07/26/2013	50.00	50
ICV01	07/26/2013	50.00	50
ICB01	07/26/2013	50.00	50
CCV01	07/26/2013	50.00	50
CCB01	07/26/2013	50.00	50
PBS03	07/26/2013	1.00	50
ME0AA5	07/26/2013	1.00	50
ME0AA6	07/26/2013	1.00	50
ME0AA8	07/26/2013	1.00	50
ME0AA9	07/26/2013	1.00	50
ME0AB0	07/26/2013	1.00	50
ME0AB1	07/26/2013	1.00	50
ME0AB2	07/26/2013	1.00	50
ME0AB2D	07/26/2013	1.00	50
ME0AB2S	07/26/2013	1.00	50
ME0AB3	07/26/2013	1.00	50
ME0AB4	07/26/2013	1.00	50
ME0AB5	07/26/2013	1.00	50
ME0AB6	07/26/2013	1.00	50
ME0AB7	07/26/2013	1.00	50
ME0AB8	07/26/2013	1.00	50
ME0AB9	07/26/2013	1.00	50
ME0AC0	07/26/2013	1.00	50
ME0AC1	07/26/2013	1.00	50
ME0AC2	07/26/2013	1.00	50
CCV02	07/26/2013	50.00	50
CCB02	07/26/2013	50.00	50

US EPA-CLP

12-IN

PREPARATION LOG

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No. SDG No.: ME0AA5

Preparation Method: 7471B

EPA Sample No.	Preparation Date	Initial Weight/Volume (g) or (mL)	Final Volume (mL)
S0.0	07/30/2013	100.00	100
S0.2	07/30/2013	100.00	100
S2.5	07/30/2013	100.00	100
S5.0	07/30/2013	100.00	100
S7.5	07/30/2013	100.00	100
S10.0	07/30/2013	100.00	100
ICV11	07/30/2013	100.00	100
ICB11	07/30/2013	100.00	100
CCV34	07/30/2013	100.00	100
CCB34	07/30/2013	100.00	100
PBS02	07/30/2013	0.50	100
ME0AA5	07/30/2013	0.55	100
ME0AA6	07/30/2013	0.55	100
ME0AA8	07/30/2013	0.54	100
ME0AA9	07/30/2013	0.53	100
ME0AB0	07/30/2013	0.54	100
ME0AB1	07/30/2013	0.53	100
ME0AB2	07/30/2013	0.50	100
ME0AB2D	07/30/2013	0.50	100
ME0AB2S	07/30/2013	0.50	100
ME0AB3	07/30/2013	0.52	100
ME0AB4	07/30/2013	0.52	100
ME0AB5	07/30/2013	0.53	100
ME0AB6	07/30/2013	0.58	100
ME0AB7	07/30/2013	0.59	100
ME0AB8	07/30/2013	0.57	100
ME0AB9	07/30/2013	0.54	100
ME0AC0	07/30/2013	0.52	100
ME0AC1	07/30/2013	0.53	100
ME0AC2	07/30/2013	0.54	100
CCV35	07/30/2013	100.00	100
CCB35	07/30/2013	100.00	100
CCV36	07/30/2013	100.00	100
CCB36	07/30/2013	100.00	100
CCV37	07/30/2013	100.00	100
CCB37	07/30/2013	100.00	100

US EPA-CLP

13-IN

ANALYSIS RUN LOG

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No _____ SDG No.: ME0AA5

Instrument ID: CN Analysis Method: AS

Start Date: 07/29/2013 End Date: 07/29/2013

EPA Sample NO.	D/F	Time	Analytes																									
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN		
S0	1.0	1444																								X		
S5.0	1.0	1444																								X		
S10.0	1.0	1444																								X		
S100.0	1.0	1444																								X		
S250.0	1.0	1444																								X		
S500.0	1.0	1444																								X		
ICV01	1.0	1608																								X		
ICB01	1.0	1608																								X		
CCV01	1.0	1608																								X		
CCB01	1.0	1608																								X		
PBS03	1.0	1608																								X		
ME0AA5	1.0	1608																								X		
ME0AA6	1.0	1608																								X		
ME0AA8	1.0	1608																								X		
ME0AA9	1.0	1608																								X		
ME0AB0	1.0	1609																								X		
ME0AB1	1.0	1609																								X		
ME0AB2	1.0	1616																								X		
ME0AB2D	1.0	1616																								X		
ME0AB2S	1.0	1616																								X		
ME0AB3	1.0	1616																								X		
ME0AB4	1.0	1616																								X		
ME0AB5	1.0	1616																								X		
ME0AB6	1.0	1616																								X		
ME0AB7	1.0	1616																								X		
ME0AB8	1.0	1616																								X		
ME0AB9	1.0	1616																								X		
ME0AC0	1.0	1616																								X		
ME0AC1	1.0	1620																								X		
ME0AC2	1.0	1620																								X		
CCV02	1.0	1620																								X		
CCB02	1.0	1620																								X		

US EPA-CLP

13-IN

ANALYSIS RUN LOG

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No _____ SDG No.: ME0AA5

Instrument ID: P5 Analysis Method: P

Start Date: 07/29/2013 End Date: 07/29/2013

EPA Sample NO.	D/F	Time	Analytes																									
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN		
S0	1.0	1248	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
S	1.0	1252	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
S	1.0	1256	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
S	1.0	1300	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
S	1.0	1304	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
S	1.0	1308	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
S	1.0	1312	X						X				X		X							X						
ICV14	1.0	1316	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ICB14	1.0	1332	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ICSA14	1.0	1336	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ICSAB14	1.0	1340	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCV05	1.0	1344	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCB05	1.0	1348	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCV06	1.0	1429	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCB06	1.0	1433	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCV07	1.0	1524	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCB07	1.0	1528	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCV08	1.0	1637	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCB08	1.0	1641	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCV09	1.0	1742	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCB09	1.0	1746	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
PBS01	1.0	1840	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME0AA5	1.0	1848	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X			
ME0AA6	1.0	1852	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME0AA8	1.0	1856	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME0AA9	1.0	1900	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME0AB0	1.0	1904	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME0AB1	1.0	1908	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCV10	1.0	1912	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCB10	1.0	1916	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
LCS01	1.0	1920	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME0AB2	1.0	1924	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME0AB2D	1.0	1928	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME0AB2L	5.0	1932	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME0AB2S	1.0	1936		X	X	X	X	X		X	X	X		X		X		X		X	X		X	X	X			
ME0AB3	1.0	1940	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME0AB4	1.0	1944	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			

US EPA-CLP

13-IN

ANALYSIS RUN LOG

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No _____ SDG No.: ME0AA5

Instrument ID: P5 Analysis Method: P

Start Date: 07/29/2013 End Date: 07/29/2013

EPA Sample NO.	D/F	Time	Analytes																									
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN		
ME0AB5	1.0	1948	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME0AB6	1.0	1952	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME0AB7	1.0	1956	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME0AB8	1.0	2000	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME0AB9	1.0	2004	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME0AC0	1.0	2008	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME0AC1	1.0	2012	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME0AC2	1.0	2017	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCV11	1.0	2033	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCB11	1.0	2037	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			

US EPA-CLP

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ANALYSIS RUN LOG

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No _____ SDG No.: ME0AA5

Instrument ID: CV1 Analysis Method: CV

Start Date: 07/31/2013 End Date: 07/31/2013

EPA Sample NO.	D/F	Time	Analytes																									
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN		
S0.0	1.0	0950															X											
S0.2	1.0	0952															X											
S2.5	1.0	0954															X											
S5.0	1.0	0956															X											
S7.5	1.0	0958															X											
S10.0	1.0	1000															X											
ICV11	1.0	1003															X											
ICB11	1.0	1005															X											
CCV34	1.0	1007															X											
CCB34	1.0	1009															X											
PBS02	1.0	1011															X											
ME0AA5	1.0	1014															X											
ME0AA6	1.0	1016															X											
ME0AA8	1.0	1018															X											
ME0AA9	1.0	1020															X											
ME0AB0	1.0	1022															X											
ME0AB1	1.0	1024															X											
ME0AB2	1.0	1026															X											
ME0AB2D	1.0	1028															X											
ME0AB2S	1.0	1030															X											
ME0AB3	1.0	1033															X											
ME0AB4	1.0	1035															X											
ME0AB5	1.0	1037															X											
ME0AB6	1.0	1039															X											
ME0AB7	1.0	1041															X											
ME0AB8	1.0	1043															X											
ME0AB9	1.0	1045															X											
ME0AC0	1.0	1047															X											
ME0AC1	1.0	1050															X											
ME0AC2	1.0	1052															X											
CCV35	1.0	1054															X											
CCB35	1.0	1056															X											
ZZZZZZ	1.0	1058																										
ZZZZZZ	1.0	1100																										
ZZZZZZ	1.0	1102																										
ZZZZZZ	1.0	1104																										
ZZZZZZ	1.0	1106																										

US EPA-CLP

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ANALYSIS RUN LOG

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No SDG No.: ME0AA5

Instrument ID: CV1 Analysis Method: CV

Start Date: 07/31/2013 End Date: 07/31/2013

EPA Sample NO.	D/F	Time	Analytes																								
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN		
ZZZZZZ	1.0	1109																										
ZZZZZZ	1.0	1111																										
ZZZZZZ	1.0	1113																										
ZZZZZZ	1.0	1115																										
ZZZZZZ	1.0	1117																										
ZZZZZZ	1.0	1119																										
ZZZZZZ	1.0	1121																										
ZZZZZZ	1.0	1123																										
ZZZZZZ	1.0	1126																										
ZZZZZZ	1.0	1128																										
ZZZZZZ	1.0	1130																										
ZZZZZZ	1.0	1132																										
ZZZZZZ	1.0	1134																										
ZZZZZZ	1.0	1136																										
ZZZZZZ	1.0	1138																										
CCV36	1.0	1140															X											
CCB36	1.0	1143															X											
ZZZZZZ	1.0	1145																										
ZZZZZZ	1.0	1147																										
ZZZZZZ	1.0	1149																										
ZZZZZZ	1.0	1151																										
ZZZZZZ	1.0	1153																										
ZZZZZZ	1.0	1155																										
ZZZZZZ	1.0	1157																										
ZZZZZZ	1.0	1200																										
CCV37	1.0	1208															X											
CCB37	1.0	1210															X											

US EPA-CLP

13-IN

ANALYSIS RUN LOG

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No _____ SDG No.: ME0AA5

Instrument ID: P5 Analysis Method: P

Start Date: 08/01/2013 End Date: 08/01/2013

EPA Sample NO.	D/F	Time	Analytes																									
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN		
S0	1.0	1159														X												
S	1.0	1203														X												
S	1.0	1208														X												
S	1.0	1212														X												
S	1.0	1215														X												
S	1.0	1219														X												
S	1.0	1223																										
ICV16	1.0	1228														X												
ICB16	1.0	1232														X												
ICSA16	1.0	1236	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ICSAB16	1.0	1240	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCV36	1.0	1244														X												
CCB36	1.0	1248														X												
CCV37	1.0	1404														X												
CCB37	1.0	1408														X												
ME0AA5	10	1436														X												
CCV38	1.0	1517														X												
CCB38	1.0	1521														X												

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY ~ REGION V

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Sample Delivery Group: MEDAA5 CERCLIS No: ILN 000510872

Case No: 43638 Site Name/Location: CASHIE CONSTRUCTION - IL

Contractor or EPA Lab: ChemTech Data User: Weston

No. of Samples: 17 Date Sampled or Date Received: 8 Aug 13

Have Chain-of-Custody records been received? Yes X No ____
Have traffic reports or packing lists been received? Yes X No ____
If no, are traffic reports or packing list numbers written on the Chain-of-Custody Record?
Yes ____ No ____
If no, which traffic report or packing list numbers are missing?

Are basic data forms in? Yes X No ____
No of samples claimed: 17 No. of samples received: ____

Received by: Pat Joeger Date: 8 Aug 13

Received by LSSS: Pat Joeger Date: 8 Aug 13

Review started: 8/14/13 Reviewer Signature: James Eilig

Total time spent on review: 20.3 +2.0 w 8-19-13 Date review completed: 8/16/13

Copied by: A. C. Harvey Date: August 21, 2013

Mailed to user by: Pat Joeger Date: 23 Aug 13

DATA USER:
Please fill in the blanks below and return this form to:
Sylvia Griffin, Data Mgmt. Coordinator, Region V, ML-10C

Data received by: ____ Date: ____

Data review received by: ____ Date: ____

Inorganic Data Complete	[ ] Suitable for Intended Purpose [ ] T if OK
Organic Data Complete	[ ] Suitable for Intended Purpose [ ] T if OK
Dioxin data Complete	[ ] Suitable for Intended Purpose [ ] T if OK
SAS Data Complete	[ ] Suitable for Intended Purpose [ ] T if OK

PROBLEMS: Please indicate reasons why data are not suitable for your uses.

Received by Data Mgmt. Coordinator for Files. Date: ____

ESAT Controlled Number: ESAT5.417.00563 - pj 23Aug13

DATE: August 23, 2013

Weston Solutions, Inc.
ATTN: **Ms. Tonya Balla**
750 East Bunker Court – Suite 500
Vernon Hills, IL 60061-1450

Site Name: **Castle Construction - IL – level 3 data validation**

Case	Lab	Samples	SDG	Matrix
43638	ChemTech	11	ME0AC3	soil

Analysis: metals/Hg/Cn

Upon receipt of data, please check each package for completeness and note any missing deliverables below.

PLEASE! Send this form back to Sylvia Griffin, Data Management Coordinator after filling in the blanks below.

Data Received by:_____ Date:_____

PROBLEMS:

Please indicate if data is complete, and note if there are any deliverables missing from the cases noted above.

_____

_____

Received by Data Management Coordinator, CRL for file.

Signature:_____ Date:_____

FROM: **U.S. EPA - Region 5**
Sylvia Griffin
Central Regional Laboratory
536 S. Clark, 10th Floor
Chicago, IL 60605

Sent By: Pat Joyner
Data Coordinator
ESAT Region 5/**TechLaw**

Controlled Document

Regional Transmittal Form # ESAT5.415.00200
ACH
8-21-13

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 8/14/13

SUBJECT: Review of Data
Received for review on 8/9/13

FROM: Timothy Prendiville, Supervisor, Chief (SR-6J)
Superfund Contract Management Section

TO: Data User: Weston
Email address: t.balla@westonsolutions.com

LEVEL 3 DATA VALIDATION

We have reviewed the data for the following case:

SITE NAME: Castle Construction (IL)

CASE NUMBER: 43638 **SDG NUMBER:** ME0AC3

Number and Type of Samples: 11 soils (metals/Hg/CN)

Sample Numbers: ME0AC3-C9, D0-D3

Laboratory: Chemtech **Hrs. for Review:** 15.5 +4

Following are our findings:

CC: Howard Pham
Region 5 TPO
Mail Code: SA-5J

Below is a summary of the out-of-control audits and the possible effects on the data for this case:

Eleven (11) soil samples, numbered ME0AC3-C9, D0-D3, were collected on July 25, 2013. The lab received the samples on July 26, 2013 in good condition. All samples were analyzed for metals and cyanide. All samples were analyzed using the CLP SOW ISM01.3 analysis procedures.

Mercury analysis was performed using a Cold Vapor AA Technique. Cyanide analysis was performed using the MIDI Distillation procedure. The remaining inorganic analyses were performed using an Inductively Coupled Plasma-Atomic Emission Spectroscopy (ICP-AES) procedure.

The conversion calculation formula provided in the laboratory case narrative does not include unit values for several of the variables or multipliers within the equation. Reported sample results are calculated correctly.

According to the preparation records for the August 6, 2013 run (sample ME0AC4 only), the laboratory used an expired chromium standard (Chemtech lot# M2596, expired August 1, 2013). The standard was used for the calibration. Additionally, all calibration standards for cyanide analysis were distilled on July 29, 2013 and are listed as expiring on July 30, 2013. All cyanide samples were analyzed on July 31, 2013.

1. HOLDING TIME:

The inorganic soil samples were reviewed for holding time violations using criteria developed for water samples. No defects were found.

2. CALIBRATIONS:

The following inorganic samples are associated with a calibration curve used past its expiration.

Hits are qualified "J" and non-detects are qualified "UJ".

Cyanide

ME0AC3, ME0AC4, ME0AC5, ME0AC6, ME0AC7, ME0AC8, ME0AC9, ME0AD0, ME0AD1, ME0AD2, ME0AD3

3. BLANKS:

The following inorganic samples are associated with an ICB/CCB or preparation blank concentration which is greater than the method detection limit (MDL). The sample result is greater than the MDL.

Hits less than the CRQL are qualified "U". The sample result is raised to the CRQL.
Hits greater than the CRQL but less than 5 times the blank are qualified "J+".

Barium

ME0AC3, ME0AC5, ME0AC6, ME0AC7

Beryllium

ME0AC4

Cadmium

ME0AC3, ME0AC5, ME0AC6, ME0AC7, ME0AC8, ME0AC9, ME0AD0, ME0AD1, ME0AD2, ME0AD3

Cobalt

ME0AC8, ME0AC9, ME0AD0, ME0AD1, ME0AD2, ME0AD3

The following inorganic samples are associated with a negative ICB/CCB or preparation blank concentration whose absolute value is greater than the method detection limit (MDL). The sample result is also greater than the MDL.

Hits less than 5 times the blank are qualified "J-".

Potassium

ME0AC3, ME0AC6, ME0AC8, ME0AC9, ME0AD0

4. MATRIX SPIKE/MATRIX SPIKE DUPLICATE AND LAB CONTROL SAMPLE:

The following inorganic samples are associated with a matrix spike recovery which is high (>125%) indicating that sample results may be biased high. The required post spike was performed and results were less than or equal to 125%.

Hits are qualified "J"; non-detects are not qualified.

Lead

ME0AC3, ME0AC4, ME0AC5, ME0AC6, ME0AC7, ME0AC8, ME0AC9, ME0AD0, ME0AD1, ME0AD2, ME0AD3

Manganese

ME0AC3, ME0AC4, ME0AC5, ME0AC6, ME0AC7, ME0AC8, ME0AC9, ME0AD0, ME0AD1, ME0AD2, ME0AD3

No defects were found for the laboratory control sample.

5. LABORATORY AND FIELD DUPLICATE:

No defects were found for the laboratory duplicate samples. Region 5 uses 35%RPD/2xCRQL difference control criteria for soil samples.

ME0AC3/C4 and ME0AD2/D3 are field duplicate pairs. The following inorganic analytes are associated with field duplicate results which did not meet technical data validation criteria; however, no sample results are qualified for field duplicates.

ME0AC3/C4

Arsenic, Iron, Manganese

ME0AD2/D3

Aluminum, Chromium, Iron, Lead, Manganese, Zinc

6. ICP ANALYSIS:

No defects were found for the serial dilution or ICS samples.

7. SAMPLE RESULTS:

The following inorganic samples have analyte concentrations reported above the method detection limit (MDL) but below the quantitation limit (CRQL).

Results are qualified "J".

Antimony

ME0AC4, ME0AC8

Beryllium

ME0AC3, ME0AC5, ME0AC6, ME0AC7, ME0AC8, ME0AC9, ME0AD0, ME0AD1, ME0AD2, ME0AD3

Cobalt
ME0AC3, ME0AC5, ME0AC6, ME0AC7

Copper
ME0AC3, ME0AC4, ME0AC5

Nickel
ME0AC3, ME0AC6

Potassium
ME0AC3, ME0AC4, ME0AC5, ME0AC6, ME0AC7, ME0AC8, ME0AC9, ME0AD0, ME0AD1, ME0AD2, ME0AD3

Selenium
ME0AD0, ME0AD1, ME0AD3

Silver
ME0AC3, ME0AC5, ME0AC6, ME0AC7, ME0AC8, ME0AC9, ME0AD0, ME0AD1, ME0AD2, ME0AD3

Sodium
ME0AC3, ME0AC4, ME0AC5, ME0AC6, ME0AC7, ME0AC8, ME0AC9, ME0AD0, ME0AD1, ME0AD2, ME0AD3

Cyanide
ME0AC8

All data, except those qualified above, are acceptable.

EXES ISM01.3 Data Qualifier Sheet

Qualifiers	Data Qualifier Definitions
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.
UJ	The analyte was analyzed for, but not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Reviewed by: Stephen Connet
Date: August 14, 2013

Sample Summary Report

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AC3	Lab Code:	CHEM
Sample Number:	ME0AC3	Method:	CN	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD04-(0-6)-072513	pH:	2	Sample Date:	07/25/2013	Sample Time:	08:20:00
% Moisture :				% Solids :	75.4		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Cyanide	0.66	mg/kg	1	U	UJ	Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AC3	Lab Code:	CHEM
Sample Number:	ME0AC3	Method:	ICP_AES	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD04-(0-6)-072513	pH:	2	Sample Date:	07/25/2013	Sample Time:	08:20:00
% Moisture :				% Solids :	75.4		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Aluminum	1860	mg/kg	1			Yes	S2BVE
Antimony	7.0	mg/kg	1	U	U	Yes	S2BVE
Arsenic	3.1	mg/kg	1			Yes	S2BVE
Barium	23.5	mg/kg	1	J	U	Yes	S2BVE
Beryllium	0.21	mg/kg	1	J	J	Yes	S2BVE
Cadmium	0.59	mg/kg	1	J	U	Yes	S2BVE
Calcium	29000	mg/kg	1			Yes	S2BVE
Chromium	4.0	mg/kg	1			Yes	S2BVE
Cobalt	2.2	mg/kg	1	J	J	Yes	S2BVE
Copper	2.0	mg/kg	1	J	J	Yes	S2BVE
Iron	8610	mg/kg	1			Yes	S2BVE
Lead	4.4	mg/kg	1	N	J	Yes	S2BVE
Magnesium	12300	mg/kg	1			Yes	S2BVE
Manganese	175	mg/kg	1	N	J	Yes	S2BVE
Nickel	4.2	mg/kg	1	J	J	Yes	S2BVE
Potassium	171	mg/kg	1	J	J-	Yes	S2BVE
Selenium	4.1	mg/kg	1	U	U	Yes	S2BVE
Silver	0.77	mg/kg	1	J	J	Yes	S2BVE
Sodium	147	mg/kg	1	J	J	Yes	S2BVE
Thallium	2.9	mg/kg	1	U	U	Yes	S2BVE
Vanadium	8.3	mg/kg	1			Yes	S2BVE
Zinc	18.9	mg/kg	1			Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AC3	Lab Code:	CHEM
Sample Number:	ME0AC3	Method:	Hg	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD04-(0-6)-072513	pH:	2	Sample Date:	07/25/2013	Sample Time:	08:20:00
% Moisture :				% Solids :	75.4		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Mercury	0.12	mg/kg	1	U	U	Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AC3	Lab Code:	CHEM
Sample Number:	ME0AC4	Method:	CN	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD04-(0-6)-072513D	pH:	2	Sample Date:	07/25/2013	Sample Time:	08:25:00
% Moisture :				% Solids :	83		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Cyanide	0.60	mg/kg	1	U	UJ	Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AC3	Lab Code:	CHEM
Sample Number:	ME0AC4	Method:	ICP_AES	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD04-(0-6)-072513D	pH:	2	Sample Date:	07/25/2013	Sample Time:	08:25:00
% Moisture :				% Solids :	83		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Aluminum	1760	mg/kg	1			Yes	S2BVE
Antimony	0.51	mg/kg	1	J	J	Yes	S2BVE
Arsenic	8.8	mg/kg	1			Yes	S2BVE
Barium	40.6	mg/kg	1			Yes	S2BVE
Beryllium	0.46	mg/kg	1	J	U	Yes	S2BVE
Cadmium	0.53	mg/kg	1			Yes	S2BVE
Calcium	25100	mg/kg	1			Yes	S2BVE
Chromium	3.7	mg/kg	1			Yes	S2BVE
Cobalt	7.0	mg/kg	1			Yes	S2BVE
Copper	0.97	mg/kg	1	J	J	Yes	S2BVE
Iron	21600	mg/kg	1			Yes	S2BVE
Lead	6.4	mg/kg	1	N	J	Yes	S2BVE
Magnesium	10200	mg/kg	1			Yes	S2BVE
Manganese	799	mg/kg	1	N	J	Yes	S2BVE
Nickel	7.7	mg/kg	1			Yes	S2BVE
Potassium	220	mg/kg	1	J	J	Yes	S2BVE
Selenium	3.2	mg/kg	1	U	U	Yes	S2BVE
Silver	1.9	mg/kg	1			Yes	S2BVE
Sodium	143	mg/kg	1	J	J	Yes	S2BVE
Thallium	2.3	mg/kg	1	U	U	Yes	S2BVE
Vanadium	9.5	mg/kg	1			Yes	S2BVE
Zinc	19.9	mg/kg	1			Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AC3	Lab Code:	CHEM
Sample Number:	ME0AC4	Method:	Hg	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD04-(0-6)-072513D	pH:	2	Sample Date:	07/25/2013	Sample Time:	08:25:00
% Moisture :				% Solids :	83		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Mercury	0.11	mg/kg	1	U	U	Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AC3	Lab Code:	CHEM
Sample Number:	ME0AC5	Method:	CN	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD04-(6-12)-072513	pH:	2	Sample Date:	07/25/2013	Sample Time:	08:30:00
% Moisture :				% Solids :	80.1		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Cyanide	0.62	mg/kg	1	U	UJ	Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AC3	Lab Code:	CHEM
Sample Number:	ME0AC5	Method:	Hg	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD04-(6-12)-072513	pH:	2	Sample Date:	07/25/2013	Sample Time:	08:30:00
% Moisture :				% Solids :	80.1		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Mercury	0.11	mg/kg	1	U	U	Yes	S2BVE

Case No: 43638	Contract: EPW09038	SDG No: ME0AC3	Lab Code: CHEM
Sample Number: ME0AC5	Method: ICP_AES	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD04-(6-12)-072513	pH: 2	Sample Date: 07/25/2013	Sample Time: 08:30:00
% Moisture :		% Solids : 80.1	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Aluminum	1930	mg/kg	1			Yes	S2BVE
Antimony	5.2	mg/kg	1	U	U	Yes	S2BVE
Arsenic	3.8	mg/kg	1			Yes	S2BVE
Barium	17.3	mg/kg	1	J	U	Yes	S2BVE
Beryllium	0.19	mg/kg	1	J	J	Yes	S2BVE
Cadmium	0.43	mg/kg	1	J	U	Yes	S2BVE
Calcium	41200	mg/kg	1			Yes	S2BVE
Chromium	4.9	mg/kg	1			Yes	S2BVE
Cobalt	2.8	mg/kg	1	J	J	Yes	S2BVE
Copper	1.9	mg/kg	1	J	J	Yes	S2BVE
Iron	9210	mg/kg	1			Yes	S2BVE
Lead	4.9	mg/kg	1	N	J	Yes	S2BVE
Magnesium	18600	mg/kg	1			Yes	S2BVE
Manganese	269	mg/kg	1	N	J	Yes	S2BVE
Nickel	4.9	mg/kg	1			Yes	S2BVE
Potassium	231	mg/kg	1	J	J	Yes	S2BVE
Selenium	3.0	mg/kg	1	U	U	Yes	S2BVE
Silver	0.81	mg/kg	1	J	J	Yes	S2BVE
Sodium	138	mg/kg	1	J	J	Yes	S2BVE
Thallium	2.2	mg/kg	1	U	U	Yes	S2BVE
Vanadium	10.1	mg/kg	1			Yes	S2BVE
Zinc	16.6	mg/kg	1			Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AC3	Lab Code:	CHEM
Sample Number:	ME0AC6	Method:	CN	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD03-(0-6)-072513	pH:	2	Sample Date:	07/25/2013	Sample Time:	10:00:00
% Moisture :				% Solids :	74.1		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Cyanide	0.67	mg/kg	1	U	UJ	Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AC3	Lab Code:	CHEM
Sample Number:	ME0AC6	Method:	Hg	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD03-(0-6)-072513	pH:	2	Sample Date:	07/25/2013	Sample Time:	10:00:00
% Moisture :				% Solids :	74.1		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Mercury	0.13	mg/kg	1	U	U	Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AC3	Lab Code:	CHEM
Sample Number:	ME0AC6	Method:	ICP_AES	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD03-(0-6)-072513	pH:	2	Sample Date:	07/25/2013	Sample Time:	10:00:00
% Moisture :				% Solids :	74.1		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Aluminum	1850	mg/kg	1			Yes	S2BVE
Antimony	6.2	mg/kg	1	U	U	Yes	S2BVE
Arsenic	2.6	mg/kg	1			Yes	S2BVE
Barium	20.6	mg/kg	1	J	U	Yes	S2BVE
Beryllium	0.17	mg/kg	1	J	J	Yes	S2BVE
Cadmium	0.52	mg/kg	1	J	U	Yes	S2BVE
Calcium	15100	mg/kg	1			Yes	S2BVE
Chromium	3.9	mg/kg	1			Yes	S2BVE
Cobalt	2.3	mg/kg	1	J	J	Yes	S2BVE
Copper	2.8	mg/kg	1			Yes	S2BVE
Iron	6170	mg/kg	1			Yes	S2BVE
Lead	3.5	mg/kg	1	N	J	Yes	S2BVE
Magnesium	4930	mg/kg	1			Yes	S2BVE
Manganese	83.3	mg/kg	1	N	J	Yes	S2BVE
Nickel	4.1	mg/kg	1	J	J	Yes	S2BVE
Potassium	186	mg/kg	1	J	J-	Yes	S2BVE
Selenium	3.6	mg/kg	1	U	U	Yes	S2BVE
Silver	0.55	mg/kg	1	J	J	Yes	S2BVE
Sodium	102	mg/kg	1	J	J	Yes	S2BVE
Thallium	2.6	mg/kg	1	U	U	Yes	S2BVE
Vanadium	6.6	mg/kg	1			Yes	S2BVE
Zinc	17.7	mg/kg	1			Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AC3	Lab Code:	CHEM
Sample Number:	ME0AC6D	Method:	Hg	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD03-(0-6)-072513	pH:	2	Sample Date:	07/25/2013	Sample Time:	10:00:00
% Moisture :				% Solids :	74.1		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Mercury	0.14	mg/kg	1	U	U	Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AC3	Lab Code:	CHEM
Sample Number:	ME0AC6D	Method:	CN	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD03-(0-6)-072513	pH:	2	Sample Date:	07/25/2013	Sample Time:	10:00:00
% Moisture :				% Solids :	74.1		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Cyanide	0.67	mg/kg	1	U	U	Yes	S2BVE

Case No: 43638	Contract: EPW09038	SDG No: ME0AC3	Lab Code: CHEM
Sample Number: ME0AC6D	Method: ICP_AES	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD03-(0-6)-072513	pH: 2	Sample Date: 07/25/2013	Sample Time: 10:00:00
% Moisture :		% Solids : 74.1	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Aluminum	1810	mg/kg	1			Yes	S2BVE
Antimony	6.1	mg/kg	1	U	U	Yes	S2BVE
Arsenic	2.1	mg/kg	1			Yes	S2BVE
Barium	20.4	mg/kg	1	J	U	Yes	S2BVE
Beryllium	0.13	mg/kg	1	J	J	Yes	S2BVE
Cadmium	0.51	mg/kg	1	J	U	Yes	S2BVE
Calcium	14500	mg/kg	1			Yes	S2BVE
Chromium	3.8	mg/kg	1			Yes	S2BVE
Cobalt	2.2	mg/kg	1	J	J	Yes	S2BVE
Copper	2.7	mg/kg	1			Yes	S2BVE
Iron	5860	mg/kg	1			Yes	S2BVE
Lead	3.4	mg/kg	1			Yes	S2BVE
Magnesium	4780	mg/kg	1			Yes	S2BVE
Manganese	80.8	mg/kg	1			Yes	S2BVE
Nickel	4.1	mg/kg	1			Yes	S2BVE
Potassium	179	mg/kg	1	J	J	Yes	S2BVE
Selenium	3.6	mg/kg	1	U	U	Yes	S2BVE
Silver	0.52	mg/kg	1	J	J	Yes	S2BVE
Sodium	97.2	mg/kg	1	J	J	Yes	S2BVE
Thallium	2.6	mg/kg	1	U	U	Yes	S2BVE
Vanadium	6.1	mg/kg	1			Yes	S2BVE
Zinc	16.9	mg/kg	1			Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AC3	Lab Code:	CHEM
Sample Number:	ME0AC6S	Method:	Hg	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD03-(0-6)-072513	pH:	2	Sample Date:	07/25/2013	Sample Time:	10:00:00
% Moisture :				% Solids :	74.1		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Mercury	0.62	mg/kg	1			Yes	S2BVE

Case No: 43638	Contract: EPW09038	SDG No: ME0AC3	Lab Code: CHEM
Sample Number: ME0AC6S	Method: ICP_AES	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD03-(0-6)-072513	pH: 2	Sample Date: 07/25/2013	Sample Time: 10:00:00
% Moisture :		% Solids : 74.1	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Antimony	23.8	mg/kg	1			Yes	S2BVE
Arsenic	12.4	mg/kg	1			Yes	S2BVE
Barium	598	mg/kg	1			Yes	S2BVE
Beryllium	14.3	mg/kg	1			Yes	S2BVE
Cadmium	14.1	mg/kg	1			Yes	S2BVE
Chromium	63.1	mg/kg	1			Yes	S2BVE
Cobalt	143	mg/kg	1			Yes	S2BVE
Copper	75.1	mg/kg	1			Yes	S2BVE
Lead	13.3	mg/kg	1	N		Yes	S2BVE
Manganese	242	mg/kg	1	N		Yes	S2BVE
Nickel	145	mg/kg	1			Yes	S2BVE
Selenium	13.0	mg/kg	1			Yes	S2BVE
Silver	13.8	mg/kg	1			Yes	S2BVE
Thallium	14.5	mg/kg	1			Yes	S2BVE
Vanadium	152	mg/kg	1			Yes	S2BVE
Zinc	157	mg/kg	1			Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AC3	Lab Code:	CHEM
Sample Number:	ME0AC6S	Method:	CN	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD03-(0-6)-072513	pH:	2	Sample Date:	07/25/2013	Sample Time:	10:00:00
% Moisture :				% Solids :	74.1		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Cyanide	6.9	mg/kg	1			Yes	S2BVE

Case No: 43638	Contract: EPW09038	SDG No: ME0AC3	Lab Code: CHEM
Sample Number: ME0AC7	Method: ICP_AES	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD03-(6-12)-072513	pH: 2	Sample Date: 07/25/2013	Sample Time: 10:05:00
% Moisture :		% Solids : 80.5	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Aluminum	2380	mg/kg	1			Yes	S2BVE
Antimony	6.2	mg/kg	1	U	U	Yes	S2BVE
Arsenic	2.4	mg/kg	1			Yes	S2BVE
Barium	20.5	mg/kg	1	J	U	Yes	S2BVE
Beryllium	0.19	mg/kg	1	J	J	Yes	S2BVE
Cadmium	0.51	mg/kg	1	J	U	Yes	S2BVE
Calcium	26000	mg/kg	1			Yes	S2BVE
Chromium	4.9	mg/kg	1			Yes	S2BVE
Cobalt	2.7	mg/kg	1	J	J	Yes	S2BVE
Copper	3.7	mg/kg	1			Yes	S2BVE
Iron	7060	mg/kg	1			Yes	S2BVE
Lead	4.5	mg/kg	1	N	J	Yes	S2BVE
Magnesium	6670	mg/kg	1			Yes	S2BVE
Manganese	133	mg/kg	1	N	J	Yes	S2BVE
Nickel	6.1	mg/kg	1			Yes	S2BVE
Potassium	329	mg/kg	1	J	J	Yes	S2BVE
Selenium	3.6	mg/kg	1	U	U	Yes	S2BVE
Silver	0.61	mg/kg	1	J	J	Yes	S2BVE
Sodium	114	mg/kg	1	J	J	Yes	S2BVE
Thallium	2.6	mg/kg	1	U	U	Yes	S2BVE
Vanadium	7.3	mg/kg	1			Yes	S2BVE
Zinc	22.7	mg/kg	1			Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AC3	Lab Code:	CHEM
Sample Number:	ME0AC7	Method:	CN	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD03-(6-12)-072513	pH:	2	Sample Date:	07/25/2013	Sample Time:	10:05:00
% Moisture :				% Solids :	80.5		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Cyanide	0.62	mg/kg	1	U	UJ	Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AC3	Lab Code:	CHEM
Sample Number:	ME0AC7	Method:	Hg	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD03-(6-12)-072513	pH:	2	Sample Date:	07/25/2013	Sample Time:	10:05:00
% Moisture :				% Solids :	80.5		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Mercury	0.12	mg/kg	1	U	U	Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AC3	Lab Code:	CHEM
Sample Number:	ME0AC8	Method:	CN	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SO15-(0-12)-072513	pH:	2	Sample Date:	07/25/2013	Sample Time:	11:05:00
% Moisture :				% Solids :	96.4		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Cyanide	0.16	mg/kg	1	J	J	Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AC3	Lab Code:	CHEM
Sample Number:	ME0AC8	Method:	Hg	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SO15-(0-12)-072513	pH:	2	Sample Date:	07/25/2013	Sample Time:	11:05:00
% Moisture :				% Solids :	96.4		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Mercury	0.098	mg/kg	1	U	U	Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AC3	Lab Code:	CHEM
Sample Number:	ME0AC8	Method:	ICP_AES	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SO15-(0-12)-072513	pH:	2	Sample Date:	07/25/2013	Sample Time:	11:05:00
% Moisture :				% Solids :	96.4		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Aluminum	2590	mg/kg	1			Yes	S2BVE
Antimony	0.20	mg/kg	1	J	J	Yes	S2BVE
Arsenic	1.7	mg/kg	1			Yes	S2BVE
Barium	53.0	mg/kg	1			Yes	S2BVE
Beryllium	0.21	mg/kg	1	J	J	Yes	S2BVE
Cadmium	0.40	mg/kg	1	J	U	Yes	S2BVE
Calcium	605	mg/kg	1			Yes	S2BVE
Chromium	4.5	mg/kg	1			Yes	S2BVE
Cobalt	4.0	mg/kg	1	J	U	Yes	S2BVE
Copper	3.1	mg/kg	1			Yes	S2BVE
Iron	5120	mg/kg	1			Yes	S2BVE
Lead	8.1	mg/kg	1	N	J	Yes	S2BVE
Magnesium	475	mg/kg	1			Yes	S2BVE
Manganese	660	mg/kg	1	N	J	Yes	S2BVE
Nickel	3.7	mg/kg	1			Yes	S2BVE
Potassium	129	mg/kg	1	J	J-	Yes	S2BVE
Selenium	2.8	mg/kg	1	U	U	Yes	S2BVE
Silver	0.48	mg/kg	1	J	J	Yes	S2BVE
Sodium	53.3	mg/kg	1	J	J	Yes	S2BVE
Thallium	2.0	mg/kg	1	U	U	Yes	S2BVE
Vanadium	6.2	mg/kg	1			Yes	S2BVE
Zinc	24.6	mg/kg	1			Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AC3	Lab Code:	CHEM
Sample Number:	ME0AC9	Method:	Hg	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD02-(0-6)-072513	pH:	2	Sample Date:	07/25/2013	Sample Time:	12:15:00
% Moisture :				% Solids :	83.2		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Mercury	0.11	mg/kg	1	U	U	Yes	S2BVE

Case No: 43638	Contract: EPW09038	SDG No: ME0AC3	Lab Code: CHEM
Sample Number: ME0AC9	Method: ICP_AES	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD02-(0-6)-072513	pH: 2	Sample Date: 07/25/2013	Sample Time: 12:15:00
% Moisture :		% Solids : 83.2	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Aluminum	1950	mg/kg	1			Yes	S2BVE
Antimony	5.2	mg/kg	1	U	U	Yes	S2BVE
Arsenic	1.7	mg/kg	1			Yes	S2BVE
Barium	20.5	mg/kg	1			Yes	S2BVE
Beryllium	0.17	mg/kg	1	J	J	Yes	S2BVE
Cadmium	0.43	mg/kg	1	J	U	Yes	S2BVE
Calcium	15200	mg/kg	1			Yes	S2BVE
Chromium	3.9	mg/kg	1			Yes	S2BVE
Cobalt	4.3	mg/kg	1	J	U	Yes	S2BVE
Copper	3.4	mg/kg	1			Yes	S2BVE
Iron	6210	mg/kg	1			Yes	S2BVE
Lead	3.4	mg/kg	1	N	J	Yes	S2BVE
Magnesium	3760	mg/kg	1			Yes	S2BVE
Manganese	111	mg/kg	1	N	J	Yes	S2BVE
Nickel	3.9	mg/kg	1			Yes	S2BVE
Potassium	166	mg/kg	1	J	J-	Yes	S2BVE
Selenium	3.0	mg/kg	1	U	U	Yes	S2BVE
Silver	0.56	mg/kg	1	J	J	Yes	S2BVE
Sodium	147	mg/kg	1	J	J	Yes	S2BVE
Thallium	2.1	mg/kg	1	U	U	Yes	S2BVE
Vanadium	7.0	mg/kg	1			Yes	S2BVE
Zinc	16.2	mg/kg	1			Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AC3	Lab Code:	CHEM
Sample Number:	ME0AC9	Method:	CN	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD02-(0-6)-072513	pH:	2	Sample Date:	07/25/2013	Sample Time:	12:15:00
% Moisture :				% Solids :	83.2		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Cyanide	0.60	mg/kg	1	U	UJ	Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AC3	Lab Code:	CHEM
Sample Number:	ME0AD0	Method:	Hg	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD02-(6-12)-072513	pH:	2	Sample Date:	07/25/2013	Sample Time:	12:20:00
% Moisture :				% Solids :	80.8		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Mercury	0.12	mg/kg	1	U	U	Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AC3	Lab Code:	CHEM
Sample Number:	ME0AD0	Method:	CN	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD02-(6-12)-072513	pH:	2	Sample Date:	07/25/2013	Sample Time:	12:20:00
% Moisture :				% Solids :	80.8		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Cyanide	0.62	mg/kg	1	U	UJ	Yes	S2BVE

Case No: 43638	Contract: EPW09038	SDG No: ME0AC3	Lab Code: CHEM
Sample Number: ME0AD0	Method: ICP_AES	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD02-(6-12)-072513	pH: 2	Sample Date: 07/25/2013	Sample Time: 12:20:00
% Moisture :		% Solids : 80.8	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Aluminum	2340	mg/kg	1			Yes	S2BVE
Antimony	6.3	mg/kg	1	U	U	Yes	S2BVE
Arsenic	2.0	mg/kg	1			Yes	S2BVE
Barium	26.1	mg/kg	1			Yes	S2BVE
Beryllium	0.19	mg/kg	1	J	J	Yes	S2BVE
Cadmium	0.53	mg/kg	1	J	U	Yes	S2BVE
Calcium	14800	mg/kg	1			Yes	S2BVE
Chromium	4.9	mg/kg	1			Yes	S2BVE
Cobalt	5.3	mg/kg	1	J	U	Yes	S2BVE
Copper	4.4	mg/kg	1			Yes	S2BVE
Iron	6440	mg/kg	1			Yes	S2BVE
Lead	4.2	mg/kg	1	N	J	Yes	S2BVE
Magnesium	3930	mg/kg	1			Yes	S2BVE
Manganese	117	mg/kg	1	N	J	Yes	S2BVE
Nickel	4.6	mg/kg	1			Yes	S2BVE
Potassium	198	mg/kg	1	J	J-	Yes	S2BVE
Selenium	0.40	mg/kg	1	J	J	Yes	S2BVE
Silver	0.57	mg/kg	1	J	J	Yes	S2BVE
Sodium	121	mg/kg	1	J	J	Yes	S2BVE
Thallium	2.6	mg/kg	1	U	U	Yes	S2BVE
Vanadium	7.4	mg/kg	1			Yes	S2BVE
Zinc	23.1	mg/kg	1			Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AC3	Lab Code:	CHEM
Sample Number:	ME0AD1	Method:	CN	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD01-(0-6)-072513	pH:	2	Sample Date:	07/25/2013	Sample Time:	13:00:00
% Moisture :				% Solids :	51.5		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Cyanide	0.97	mg/kg	1	U	UJ	Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AC3	Lab Code:	CHEM
Sample Number:	ME0AD1	Method:	Hg	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD01-(0-6)-072513	pH:	2	Sample Date:	07/25/2013	Sample Time:	13:00:00
% Moisture :				% Solids :	51.5		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Mercury	0.18	mg/kg	1	U	U	Yes	S2BVE

Case No: 43638	Contract: EPW09038	SDG No: ME0AC3	Lab Code: CHEM
Sample Number: ME0AD1	Method: ICP_AES	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD01-(0-6)-072513	pH: 2	Sample Date: 07/25/2013	Sample Time: 13:00:00
% Moisture :		% Solids : 51.5	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Aluminum	6360	mg/kg	1			Yes	S2BVE
Antimony	8.1	mg/kg	1	U	U	Yes	S2BVE
Arsenic	2.6	mg/kg	1			Yes	S2BVE
Barium	60.6	mg/kg	1			Yes	S2BVE
Beryllium	0.44	mg/kg	1	J	J	Yes	S2BVE
Cadmium	0.67	mg/kg	1	J	U	Yes	S2BVE
Calcium	29200	mg/kg	1			Yes	S2BVE
Chromium	10.4	mg/kg	1			Yes	S2BVE
Cobalt	6.7	mg/kg	1	J	U	Yes	S2BVE
Copper	12.8	mg/kg	1			Yes	S2BVE
Iron	11800	mg/kg	1			Yes	S2BVE
Lead	9.9	mg/kg	1	N	J	Yes	S2BVE
Magnesium	7230	mg/kg	1			Yes	S2BVE
Manganese	164	mg/kg	1	N	J	Yes	S2BVE
Nickel	10.6	mg/kg	1			Yes	S2BVE
Potassium	599	mg/kg	1	J	J	Yes	S2BVE
Selenium	0.48	mg/kg	1	J	J	Yes	S2BVE
Silver	1.1	mg/kg	1	J	J	Yes	S2BVE
Sodium	231	mg/kg	1	J	J	Yes	S2BVE
Thallium	3.4	mg/kg	1	U	U	Yes	S2BVE
Vanadium	15.8	mg/kg	1			Yes	S2BVE
Zinc	48.3	mg/kg	1			Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AC3	Lab Code:	CHEM
Sample Number:	ME0AD2	Method:	Hg	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD01-(6-12)-072513	pH:	2	Sample Date:	07/25/2013	Sample Time:	13:10:00
% Moisture :				% Solids :	58.2		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Mercury	0.15	mg/kg	1	U	U	Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AC3	Lab Code:	CHEM
Sample Number:	ME0AD2	Method:	CN	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD01-(6-12)-072513	pH:	2	Sample Date:	07/25/2013	Sample Time:	13:10:00
% Moisture :				% Solids :	58.2		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Cyanide	0.86	mg/kg	1	U	UJ	Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AC3	Lab Code:	CHEM
Sample Number:	ME0AD2	Method:	ICP_AES	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD01-(6-12)-072513	pH:	2	Sample Date:	07/25/2013	Sample Time:	13:10:00
% Moisture :				% Solids :	58.2		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Aluminum	4510	mg/kg	1			Yes	S2BVE
Antimony	8.1	mg/kg	1	U	U	Yes	S2BVE
Arsenic	2.0	mg/kg	1			Yes	S2BVE
Barium	39.9	mg/kg	1			Yes	S2BVE
Beryllium	0.32	mg/kg	1	J	J	Yes	S2BVE
Cadmium	0.68	mg/kg	1	J	U	Yes	S2BVE
Calcium	26500	mg/kg	1			Yes	S2BVE
Chromium	7.4	mg/kg	1			Yes	S2BVE
Cobalt	6.8	mg/kg	1	J	U	Yes	S2BVE
Copper	9.1	mg/kg	1			Yes	S2BVE
Iron	8310	mg/kg	1			Yes	S2BVE
Lead	7.4	mg/kg	1	N	J	Yes	S2BVE
Magnesium	5820	mg/kg	1			Yes	S2BVE
Manganese	101	mg/kg	1	N	J	Yes	S2BVE
Nickel	7.8	mg/kg	1			Yes	S2BVE
Potassium	398	mg/kg	1	J	J	Yes	S2BVE
Selenium	4.7	mg/kg	1	U	U	Yes	S2BVE
Silver	0.75	mg/kg	1	J	J	Yes	S2BVE
Sodium	207	mg/kg	1	J	J	Yes	S2BVE
Thallium	3.4	mg/kg	1	U	U	Yes	S2BVE
Vanadium	11.3	mg/kg	1			Yes	S2BVE
Zinc	36.5	mg/kg	1			Yes	S2BVE

Case No: 43638	Contract: EPW09038	SDG No: ME0AC3	Lab Code: CHEM

Sample Number:	ME0AD3	Method:	ICP_AES	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD01-(0-6)-072513D	pH:	2	Sample Date:	07/25/2013	Sample Time:	13:10:00
% Moisture :				% Solids :	48.6		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Aluminum	7220	mg/kg	1			Yes	S2BVE
Antimony	8.7	mg/kg	1	U	U	Yes	S2BVE
Arsenic	3.3	mg/kg	1			Yes	S2BVE
Barium	67.1	mg/kg	1			Yes	S2BVE
Beryllium	0.56	mg/kg	1	J	J	Yes	S2BVE
Cadmium	0.72	mg/kg	1	J	U	Yes	S2BVE
Calcium	30900	mg/kg	1			Yes	S2BVE
Chromium	11.2	mg/kg	1			Yes	S2BVE
Cobalt	7.2	mg/kg	1	J	U	Yes	S2BVE
Copper	13.3	mg/kg	1			Yes	S2BVE
Iron	12900	mg/kg	1			Yes	S2BVE
Lead	11.1	mg/kg	1	N	J	Yes	S2BVE
Magnesium	7720	mg/kg	1			Yes	S2BVE
Manganese	173	mg/kg	1	N	J	Yes	S2BVE
Nickel	11.6	mg/kg	1			Yes	S2BVE
Potassium	687	mg/kg	1	J	J	Yes	S2BVE
Selenium	0.55	mg/kg	1	J	J	Yes	S2BVE
Silver	1.2	mg/kg	1	J	J	Yes	S2BVE
Sodium	265	mg/kg	1	J	J	Yes	S2BVE
Thallium	3.6	mg/kg	1	U	U	Yes	S2BVE
Vanadium	17.4	mg/kg	1			Yes	S2BVE
Zinc	53.7	mg/kg	1			Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AC3	Lab Code:	CHEM
Sample Number:	ME0AD3	Method:	Hg	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD01-(0-6)-072513D	pH:	2	Sample Date:	07/25/2013	Sample Time:	13:10:00
% Moisture :				% Solids :	48.6		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Mercury	0.19	mg/kg	1	U	U	Yes	S2BVE

Case No:	43638	Contract:	EPW09038	SDG No:	ME0AC3	Lab Code:	CHEM
Sample Number:	ME0AD3	Method:	CN	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD01-(0-6)-072513D	pH:	2	Sample Date:	07/25/2013	Sample Time:	13:10:00
% Moisture :				% Solids :	48.6		

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Cyanide	1.0	mg/kg	1	U	UJ	Yes	S2BVE

SDG# ME0AC3

USEPA CLP Inorganics COC (LAB COPY)

CHAIN OF CUSTODY RECORD

No: 5-072513-092413-0008

DateShipped:
CarrierName:
AirbillNo:

Case #: 43638
Cooler #:

Lab: ChemTech Consulting Group
Lab Contact: Divya Mehta
Lab Phone: 908-789-8900

Inorganic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Organic Sample #	For Lab Use Only
ME0AC3	Sediment/ David Sena	Grab	CLP TAL Total Metals ICP-MS, Mercury, and Cyanide	5-123003 (None) (1)	CC-SD04-(0-6)-072513	07/25/2013 08:20	E0AC3	
ME0AC4	Sediment/ David Sena	Grab	CLP TAL Total Metals ICP-MS, Mercury, and Cyanide	5-123007 (None) (1)	CC-SD04-(0-6)-072513D	07/25/2013 08:25	E0AC4	
ME0AC5	Sediment/ David Sena	Grab	CLP TAL Total Metals ICP-MS, Mercury, and Cyanide	5-123011 (None) (1)	CC-SD04-(6-12)-072513	07/25/2013 08:30	E0AC5	
ME0AC6	Sediment/ David Sena	Grab	CLP TAL Total Metals ICP-MS, Mercury, and Cyanide	5-123016 (None) (1)	CC-SD03-(0-6)-072513	07/25/2013 10:00	E0AC6	
ME0AC7	Sediment/ David Sena	Grab	CLP TAL Total Metals ICP-MS, Mercury, and Cyanide	5-123020 (None) (1)	CC-SD03-(6-12)-072513	07/25/2013 10:05	E0AC7	
ME0AC8	Soil/ David Sena	Grab	CLP TAL Total Metals ICP-MS, Mercury, and Cyanide	5-123024 (None) (1)	CC-SO15-(0-12)-072513	07/25/2013 11:05	E0AC8	
ME0AC9	Sediment/ David Sena	Grab	CLP TAL Total Metals ICP-MS, Mercury, and Cyanide	5-123027 (None) (1)	CC-SD02-(0-6)-072513	07/25/2013 12:15	E0AC9	
ME0AD0	Sediment/ David Sena	Grab	CLP TAL Total Metals ICP-MS, Mercury, and Cyanide	5-123032 (None) (1)	CC-SD02-(6-12)-072513	07/25/2013 12:20	E0AD0	
ME0AD1	Sediment/ David Sena	Grab	CLP TAL Total Metals ICP-MS, Mercury, and Cyanide	5-123036 (None) (1)	CC-SD01-(0-6)-072513	07/25/2013 13:00	E0AD1	
ME0AD2	Sediment/ David Sena	Grab	CLP TAL Total Metals ICP-MS, Mercury, and Cyanide	5-123040 (None) (1)	CC-SD01-(6-12)-072513	07/25/2013 13:10	E0AD2	
ME0AD3	Sediment/ David Sena	Grab	CLP TAL Total Metals ICP-MS, Mercury, and Cyanide	5-123044 (None) (1)	CC-SD01-(0-6)-072513D	07/25/2013 13:10	E0AD3	

Sample(s) to be used for Lab QC: ME0AC6
14 Day Turn Around

Temp: 6°C

Shipment for Case Complete? N

Samples Transferred From Chain of Custody # N/A

Analysis Key

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
	[signature]	7-25-13							[signature]	7/26/13	1015

8

CHEMTECH
284 Sheffield Street
Mountainside, NJ 07092

SDG NARRATIVE

USEPA
SDG # ME0AC3
CASE # 43638
CONTRACT # EPW09038
LAB NAME: CHEMTECH CONSULTING GROUP
LAB CODE: CHEM
CHEMTECH PROJECT #E3072

A. Number of Samples and Date of Receipt

11 soil samples were delivered to the laboratory intact on 07/26/13.

B. Parameters

Test requested for Metals CLP Full = Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc & HG & CN.

C. Cooler Temp

Indicator Bottle: **Presence**/Absence
Cooler: 6°C

D. Detail Documentation (related to Sample Handling Shipping, Analytical Problem, Temp of Cooler etc):

Issue 1: The laboratory received sample ME0AD3 with <50% solids (48.6% solids).

E. Corrective Action taken for above:

Resolution 1: Per the ISM01.3 SOW, the laboratory will proceed with the analysis of the samples according to Exhibit D, sections 1.6.4 and 1.6.5.

F. Analytical Techniques:

All analyses were based on CLP Methodology by method ISM01.3

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Mountainside, NJ 07092

G. Calculation:

Calculation example for ICP-AES Soil Sample:

Conversion of Results from mg/L or ppm to mg/kg (Dry Weight Basis):

Results reported in Mg/Kg = (Result in mg/L or ppm for ICP-AES) X 1000 X Fraction of % Solid (100/ % Solid) X Dilution Factor (if any) X Fraction of Sample Amount Taken in ICP-Soil Prep.

Example of Fraction of Sample Amount Taken in ICP-AES Soil Prep = 1/10 (1.0 X10 or 0.50 X 20)
(if 1.0 g of sample taken during Digestion and the Final Volume was made to 100 ml or 0.5 g to Final Volume 50ml)

Or

Example of Fraction of Sample Amount Taken in ICP-AES Soil Prep = 1/10.2 (1.02 X 10 or

0.51 X 20)

(if 1.02 g of sample taken during Digestion and the Final Volume was made to 100 ml or 0.51 g to Final Volume 50ml)

Etc.

Calculation example for Hg Soil Sample:

Conversion of Results from ppb to mg/kg (Dry Weight Basis):

Results reported in Mg/Kg = (Result in ppb for Hg) X Fraction of % Solid (100/ % Solid) X Dilution Factor (if any) X Fraction of Sample Amount Taken in Prep.

Example of Fraction of Sample Amount Taken in Hg Soil Prep = 1/ 2 (0.2 X 10)

(if 0.2 g of sample taken during Digestion and the Final Volume was made to 100 ml)

Or

Example of Fraction of Sample Amount Taken in Hg Soil Prep = 1 / 2.1 (0.21 X 10)

(if 0.21 g of sample taken during Digestion and the Final Volume was made to 100 ml)

Etc.

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Calculation example for CN Soil Sample:

Conversion of Results from Ug/L to mg/kg (Dry Weight Basis):

Results reported in Mg/Kg = (Result in Ug/L for CN) X Fraction of % Solid (100/ % Solid) X Dilution

Factor (if any) X Fraction of Sample Amount Taken in Prep.

Example of Fraction of Sample Amount Taken in CN Soil Prep = 1/20 (1 X 20)

(if 1.0 g of sample taken during Digestion and the Final Volume was made to 50 ml)
Or

Example of Fraction of Sample Amount Taken in Hg Soil Prep = 1 / 20.2 (1.01 X 20)

(if 1.01 g of sample taken during Digestion and the Final Volume was made to 50 ml)

Etc.

H. QA/ QC

Calibrations met requirements. Interference check met requirements. Blank analyses did not indicate any presence of contamination. Laboratory Control sample was within control limits. Spike sample did meet requirements except for Lead & Manganese. Duplicate sample did meet requirements. Serial Dilution did meet requirements.

I certify that the data package is in compliance with the terms and conditions of the contract both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Director or his designee, as verified by the following signature.

Signature _____ for Name: Mildred V. Reyes

Date 08 | 08 | 13 Title: Document Control Officer

From: Baciocco, Kerrie [kbaciocco@fedcsc.com]
Sent: Wednesday, July 31, 2013 9:49 AM
To: Himanshu Prajapati; Divya Mehta; Snehal Mehta
Cc: Alida Roberman; Carlene Thomas; Howard Pham; Tim Prendiville; Warren Layne; Balla, Tonya
Subject: Region 05 | Case 43638 | Lab CHEM | SDG ME0AC3 | Issue Non-standard matrix | FINAL

Himanshu,

This is Caitlin; Kerrie is out of the office.

Summary Start
Issue: The laboratory received sample ME0AD3 with <50% solids (48.6% solids).
Resolution: Per the ISM01.3 SOW, the laboratory will proceed with the analysis of the samples according to Exhibit D, sections 1.6.4 and 1.6.5.
Summary End

Please let me know if you have any additional questions. To waive any defect(s) associated with this issue, please contact your PO.

Thanks,
Caitlin Shubick for

KERRIE A. BACIOCCO
Environmental Coordinator - Region 5
CSC

15000 Conference Center Drive, Chantilly, VA 20151
Civil Division | (p) 703-818-4134 | (f) 703-818-4602 | kbaciocco@fedcsc.com | www.csc.com

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From: Himanshu Prajapati [mailto:Himanshu@chemtech.net]
Sent: Wednesday, July 31, 2013 11:10 AM
To: Baciocco, Kerrie
Cc: Divya Mehta
Subject: RE: REGION 5 | SDG ME0AC3 | CASE 43638 | CONTRACT EPW09038 | ISSUE % SOLIDS | CHEMTECH ORDER ID E3072 |

Hello,

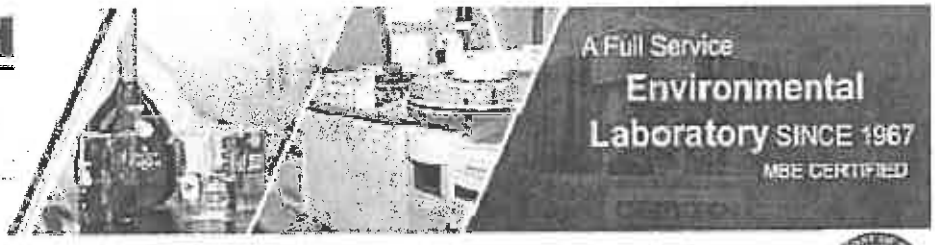
Please see attached.

Regards,

Himanshu Prajapati
QA/QC Director
Direct Line: (908)728-3152
General Number: (908)789-8900
Fax: (908)789-8922

CHEMTECH

284 Sheffield Street
Mountainside, New Jersey 07092
Phone: (908) 789 8900
Fax: (908) 789 8922



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From: Baciocco, Kerrie [mailto:kbaciocco@fedcsc.com]
Sent: Wednesday, July 31, 2013 9:08 AM
To: Himanshu Prajapati
Cc: Divya Mehta
Subject: RE: REGION 5 | SDG ME0AC3 | CASE 43638 | CONTRACT EPW09038 | ISSUE % SOLIDS | CHEMTECH ORDER ID E3072 |

Himanshu,

This is Caitlin Shubick; Kerrie is out of the office.

Can you please provide me with a copy of the TR/COC that lists sample ME0AD3?

Thank you,
Caitlin for

Please let me know if you have any questions.
Thanks,

KERRIE A. BACIOCCO
Environmental Coordinator - Region 5
CSC

15000 Conference Center Drive, Chantilly, VA 20151
Civil Division | (p) 703-818-4134 | (f) 703-818-4602 | kbaciocco@fedcsc.com | www.csc.com

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From: Himanshu Prajapati [mailto:Himanshu@chemtech.net]
Sent: Tuesday, July 30, 2013 6:37 PM
To: Baciocco, Kerrie
Cc: Divya Mehta
Subject: REGION 5 | SDG ME0AC3 | CASE 43638 | CONTRACT EPW09038 | ISSUE % SOLIDS | CHEMTECH ORDER ID E3072 |

Hello,

We are sending this email with reference to % solid issue for SDG (ME0AC3) & Case (43638).

Sample (ME0AD3) has % solid results less than 50%. Please see below table for detail.

EPA Sample ID	% Solids
ME0AD3	48.6

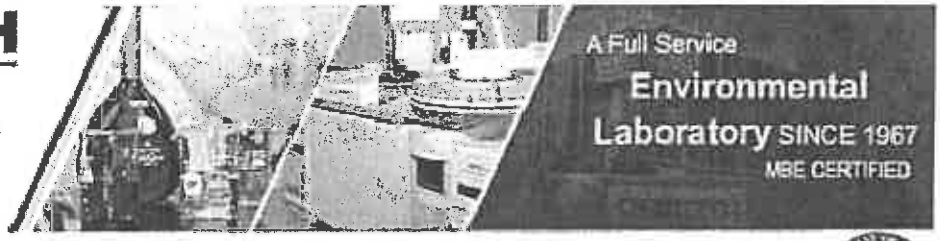
Please advise.

Regards,

Himanshu Prajapati
QA/QC Director
Direct Line: (908)728-3152
General Number: (908)789-8900
Fax: (908)789-8922

CHEMTECH

284 Sheffield Street,
Mountainside, New Jersey 07092
Phone: (908) 789-8900
Fax: (908) 789-8922



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US EPA-CLP

COVER PAGE

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No: 43638 Mod. Ref. No.: SDG No: ME0AC3

SOW No.: ISM01.3

EPA Sample No.	Lab Sample ID
ME0AC3	E3072-01
ME0AC4	E3072-02
ME0AC5	E3072-03
ME0AC6	E3072-04
ME0AC6D	E3072-05
ME0AC6S	E3072-06
ME0AC7	E3072-07
ME0AC8	E3072-08
ME0AC9	E3072-09
ME0AD0	E3072-10
ME0AD1	E3072-11
ME0AD2	E3072-12
ME0AD3	E3072-13

		ICP-AES	ICP-MS
Were ICP-AES and ICP-MS interelement corrections applied?	(Yes/No)	YES	N/A
Were ICP-AES and ICP-MS background corrections applied?	(Yes/No)	YES	N/A
If yes, were raw data generated before application of background corrections?	(Yes/No)	NO	N/A

The laboratory did not receive any instructions with this SDG to modify the SOW standard laboratory sample preparation procedures (e.g., subsampling). To aid in the determination of data usability with respect to project decisions, any modifications performed are described below.

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy Data Package and in the electronic data submitted has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: for Name: MILDRED REYES

Date: 08/08/13 Title: DOCUMENT CONTROL OFFICER

US EPA-CLP

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME0AC3

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No SDG No.: ME0AC3

Matrix: SOIL Lab Sample ID: E3072-01

% Solids: 75.4 Date Received: 07/26/2013

Concentration Units (ug/L, ug, or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1860			P
7440-36-0	Antimony	7.0	U		P
7440-38-2	Arsenic	3.1			P
7440-39-3	Barium	10.8	J		P
7440-41-7	Beryllium	0.21	J		P
7440-43-9	Cadmium	0.30	J		P
7440-70-2	Calcium	29000			P
7440-47-3	Chromium	4.0			P
7440-48-4	Cobalt	2.2	J		P
7440-50-8	Copper	2.0	J		P
7439-89-6	Iron	8610			P
7439-92-1	Lead	4.4		N	P
7439-95-4	Magnesium	12300			P
7439-96-5	Manganese	175		N	P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	4.2	J		P
7440-09-7	Potassium	171	J		P
7782-49-2	Selenium	4.1	U		P
7440-22-4	Silver	0.77	J		P
7440-23-5	Sodium	147	J		P
7440-28-0	Thallium	2.9	U		P
7440-62-2	Vanadium	8.3			P
7440-66-6	Zinc	18.9			P
57-12-5	Cyanide	0.66	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts: NO

Comments:

US EPA-CLP

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME0AC4

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No SDG No.: ME0AC3

Matrix: SOIL Lab Sample ID: E3072-02

% Solids: 83.0 Date Received: 07/26/2013

Concentration Units (ug/L, ug, or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1760			P
7440-36-0	Antimony	0.51	J		P
7440-38-2	Arsenic	8.8			P
7440-39-3	Barium	40.6			P
7440-41-7	Beryllium	0.19	J		P
7440-43-9	Cadmium	0.53			P
7440-70-2	Calcium	25100			P
7440-47-3	Chromium	3.7			P
7440-48-4	Cobalt	7.0			P
7440-50-8	Copper	0.97	J		P
7439-89-6	Iron	21600			P
7439-92-1	Lead	6.4		N	P
7439-95-4	Magnesium	10200			P
7439-96-5	Manganese	799		N	P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	7.7			P
7440-09-7	Potassium	220	J		P
7782-49-2	Selenium	3.2	U		P
7440-22-4	Silver	1.9			P
7440-23-5	Sodium	143	J		P
7440-28-0	Thallium	2.3	U		P
7440-62-2	Vanadium	9.5			P
7440-66-6	Zinc	19.9			P
57-12-5	Cyanide	0.60	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts: NO

Comments:

US EPA-CLP

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME0AC5

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No SDG No.: ME0AC3

Matrix: SOIL Lab Sample ID: E3072-03

% Solids: 80.1 Date Received: 07/26/2013

Concentration Units (ug/L, ug, or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1930			P
7440-36-0	Antimony	5.2	U		P
7440-38-2	Arsenic	3.8			P
7440-39-3	Barium	11.9	J		P
7440-41-7	Beryllium	0.19	J		P
7440-43-9	Cadmium	0.35	J		P
7440-70-2	Calcium	41200			P
7440-47-3	Chromium	4.9			P
7440-48-4	Cobalt	2.8	J		P
7440-50-8	Copper	1.9	J		P
7439-89-6	Iron	9210			P
7439-92-1	Lead	4.9		N	P
7439-95-4	Magnesium	18600			P
7439-96-5	Manganese	269		N	P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	4.9			P
7440-09-7	Potassium	231	J		P
7782-49-2	Selenium	3.0	U		P
7440-22-4	Silver	0.81	J		P
7440-23-5	Sodium	138	J		P
7440-28-0	Thallium	2.2	U		P
7440-62-2	Vanadium	10.1			P
7440-66-6	Zinc	16.6			P
57-12-5	Cyanide	0.62	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts: NO

Comments:

US EPA-CLP

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME0AC6

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No SDG No.: ME0AC3

Matrix: SOIL Lab Sample ID: E3072-04

% Solids: 74.1 Date Received: 07/26/2013

Concentration Units (ug/L, ug, or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1850			P
7440-36-0	Antimony	6.2	U		P
7440-38-2	Arsenic	2.6			P
7440-39-3	Barium	16.0	J		P
7440-41-7	Beryllium	0.17	J		P
7440-43-9	Cadmium	0.20	J		P
7440-70-2	Calcium	15100			P
7440-47-3	Chromium	3.9			P
7440-48-4	Cobalt	2.3	J		P
7440-50-8	Copper	2.8			P
7439-89-6	Iron	6170			P
7439-92-1	Lead	3.5		N	P
7439-95-4	Magnesium	4930			P
7439-96-5	Manganese	83.3		N	P
7439-97-6	Mercury	0.13	U		CV
7440-02-0	Nickel	4.1	J		P
7440-09-7	Potassium	186	J		P
7782-49-2	Selenium	3.6	U		P
7440-22-4	Silver	0.55	J		P
7440-23-5	Sodium	102	J		P
7440-28-0	Thallium	2.6	U		P
7440-62-2	Vanadium	6.6			P
7440-66-6	Zinc	17.7			P
57-12-5	Cyanide	0.67	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts: NO

Comments:

US EPA-CLP

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME0AC7

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No SDG No.: ME0AC3

Matrix: SOIL Lab Sample ID: E3072-07

% Solids: 80.5 Date Received: 07/26/2013

Concentration Units (ug/L, ug, or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2380			P
7440-36-0	Antimony	6.2	U		P
7440-38-2	Arsenic	2.4			P
7440-39-3	Barium	16.6	J		P
7440-41-7	Beryllium	0.19	J		P
7440-43-9	Cadmium	0.27	J		P
7440-70-2	Calcium	26000			P
7440-47-3	Chromium	4.9			P
7440-48-4	Cobalt	2.7	J		P
7440-50-8	Copper	3.7			P
7439-89-6	Iron	7060			P
7439-92-1	Lead	4.5		N	P
7439-95-4	Magnesium	6670			P
7439-96-5	Manganese	133		N	P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	6.1			P
7440-09-7	Potassium	329	J		P
7782-49-2	Selenium	3.6	U		P
7440-22-4	Silver	0.61	J		P
7440-23-5	Sodium	114	J		P
7440-28-0	Thallium	2.6	U		P
7440-62-2	Vanadium	7.3			P
7440-66-6	Zinc	22.7			P
57-12-5	Cyanide	0.62	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts: NO

Comments:

US EPA-CLP

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME0AC8

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No SDG No.: ME0AC3

Matrix: SOIL Lab Sample ID: E3072-08

% Solids: 96.4 Date Received: 07/26/2013

Concentration Units (ug/L, ug, or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2590			P
7440-36-0	Antimony	0.20	J		P
7440-38-2	Arsenic	1.7			P
7440-39-3	Barium	53.0			P
7440-41-7	Beryllium	0.21	J		P
7440-43-9	Cadmium	0.24	J		P
7440-70-2	Calcium	605			P
7440-47-3	Chromium	4.5			P
7440-48-4	Cobalt	2.3	J		P
7440-50-8	Copper	3.1			P
7439-89-6	Iron	5120			P
7439-92-1	Lead	8.1		N	P
7439-95-4	Magnesium	475			P
7439-96-5	Manganese	660		N	P
7439-97-6	Mercury	0.098	U		CV
7440-02-0	Nickel	3.7			P
7440-09-7	Potassium	129	J		P
7782-49-2	Selenium	2.8	U		P
7440-22-4	Silver	0.48	J		P
7440-23-5	Sodium	53.3	J		P
7440-28-0	Thallium	2.0	U		P
7440-62-2	Vanadium	6.2			P
7440-66-6	Zinc	24.6			P
57-12-5	Cyanide	0.16	J		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts: NO

Comments:

US EPA-CLP

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME0AC9

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No SDG No.: ME0AC3

Matrix: SOIL Lab Sample ID: E3072-09

% Solids: 83.2 Date Received: 07/26/2013

Concentration Units (ug/L, ug, or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1950			P
7440-36-0	Antimony	5.2	U		P
7440-38-2	Arsenic	1.7			P
7440-39-3	Barium	20.5			P
7440-41-7	Beryllium	0.17	J		P
7440-43-9	Cadmium	0.21	J		P
7440-70-2	Calcium	15200			P
7440-47-3	Chromium	3.9			P
7440-48-4	Cobalt	2.2	J		P
7440-50-8	Copper	3.4			P
7439-89-6	Iron	6210			P
7439-92-1	Lead	3.4		N	P
7439-95-4	Magnesium	3760			P
7439-96-5	Manganese	111		N	P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	3.9			P
7440-09-7	Potassium	166	J		P
7782-49-2	Selenium	3.0	U		P
7440-22-4	Silver	0.56	J		P
7440-23-5	Sodium	147	J		P
7440-28-0	Thallium	2.1	U		P
7440-62-2	Vanadium	7.0			P
7440-66-6	Zinc	16.2			P
57-12-5	Cyanide	0.60	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts: NO

Comments:

US EPA-CLP

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME0AD0

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No SDG No.: ME0AC3

Matrix: SOIL Lab Sample ID: E3072-10

% Solids: 80.8 Date Received: 07/26/2013

Concentration Units (ug/L, ug, or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2340			P
7440-36-0	Antimony	6.3	U		P
7440-38-2	Arsenic	2.0			P
7440-39-3	Barium	26.1			P
7440-41-7	Beryllium	0.19	J		P
7440-43-9	Cadmium	0.29	J		P
7440-70-2	Calcium	14800			P
7440-47-3	Chromium	4.9			P
7440-48-4	Cobalt	2.5	J		P
7440-50-8	Copper	4.4			P
7439-89-6	Iron	6440			P
7439-92-1	Lead	4.2		N	P
7439-95-4	Magnesium	3930			P
7439-96-5	Manganese	117		N	P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	4.6			P
7440-09-7	Potassium	198	J		P
7782-49-2	Selenium	0.40	J		P
7440-22-4	Silver	0.57	J		P
7440-23-5	Sodium	121	J		P
7440-28-0	Thallium	2.6	U		P
7440-62-2	Vanadium	7.4			P
7440-66-6	Zinc	23.1			P
57-12-5	Cyanide	0.62	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts: NO

Comments:

US EPA-CLP

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME0AD1

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No SDG No.: ME0AC3

Matrix: SOIL Lab Sample ID: E3072-11

% Solids: 51.5 Date Received: 07/26/2013

Concentration Units (ug/L, ug, or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6360			P
7440-36-0	Antimony	8.1	U		P
7440-38-2	Arsenic	2.6			P
7440-39-3	Barium	60.6			P
7440-41-7	Beryllium	0.44	J		P
7440-43-9	Cadmium	0.63	J		P
7440-70-2	Calcium	29200			P
7440-47-3	Chromium	10.4			P
7440-48-4	Cobalt	4.8	J		P
7440-50-8	Copper	12.8			P
7439-89-6	Iron	11800			P
7439-92-1	Lead	9.9		N	P
7439-95-4	Magnesium	7230			P
7439-96-5	Manganese	164		N	P
7439-97-6	Mercury	0.18	U		CV
7440-02-0	Nickel	10.6			P
7440-09-7	Potassium	599	J		P
7782-49-2	Selenium	0.48	J		P
7440-22-4	Silver	1.1	J		P
7440-23-5	Sodium	231	J		P
7440-28-0	Thallium	3.4	U		P
7440-62-2	Vanadium	15.8			P
7440-66-6	Zinc	48.3			P
57-12-5	Cyanide	0.97	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts: NO

Comments:

US EPA-CLP

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME0AD2

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No SDG No.: ME0AC3

Matrix: SOIL Lab Sample ID: E3072-12

% Solids: 58.2 Date Received: 07/26/2013

Concentration Units (ug/L, ug, or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4510			P
7440-36-0	Antimony	8.1	U		P
7440-38-2	Arsenic	2.0			P
7440-39-3	Barium	39.9			P
7440-41-7	Beryllium	0.32	J		P
7440-43-9	Cadmium	0.45	J		P
7440-70-2	Calcium	26500			P
7440-47-3	Chromium	7.4			P
7440-48-4	Cobalt	3.5	J		P
7440-50-8	Copper	9.1			P
7439-89-6	Iron	8310			P
7439-92-1	Lead	7.4		N	P
7439-95-4	Magnesium	5820			P
7439-96-5	Manganese	101		N	P
7439-97-6	Mercury	0.15	U		CV
7440-02-0	Nickel	7.8			P
7440-09-7	Potassium	398	J		P
7782-49-2	Selenium	4.7	U		P
7440-22-4	Silver	0.75	J		P
7440-23-5	Sodium	207	J		P
7440-28-0	Thallium	3.4	U		P
7440-62-2	Vanadium	11.3			P
7440-66-6	Zinc	36.5			P
57-12-5	Cyanide	0.86	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts: NO

Comments:

US EPA-CLP

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME0AD3

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No SDG No.: ME0AC3

Matrix: SOIL Lab Sample ID: E3072-13

% Solids: 48.6 Date Received: 07/26/2013

Concentration Units (ug/L, ug, or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7220			P
7440-36-0	Antimony	8.7	U		P
7440-38-2	Arsenic	3.3			P
7440-39-3	Barium	67.1			P
7440-41-7	Beryllium	0.56	J		P
7440-43-9	Cadmium	0.72	J		P
7440-70-2	Calcium	30900			P
7440-47-3	Chromium	11.2			P
7440-48-4	Cobalt	5.4	J		P
7440-50-8	Copper	13.3			P
7439-89-6	Iron	12900			P
7439-92-1	Lead	11.1		N	P
7439-95-4	Magnesium	7720			P
7439-96-5	Manganese	173		N	P
7439-97-6	Mercury	0.19	U		CV
7440-02-0	Nickel	11.6			P
7440-09-7	Potassium	687	J		P
7782-49-2	Selenium	0.55	J		P
7440-22-4	Silver	1.2	J		P
7440-23-5	Sodium	265	J		P
7440-28-0	Thallium	3.6	U		P
7440-62-2	Vanadium	17.4			P
7440-66-6	Zinc	53.7			P
57-12-5	Cyanide	1.0	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts: NO

Comments:

US EPA-CLP

3-IN
BLANKS

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No.: SDG No.: ME0AC3

Preparation Blank Matrix (soil/water/wipe/filter): SOIL

Preparation Blank Concentration Units (ug/L, ug, or mg/kg): MG/KG

Analyte	Initial Calibration Blank(ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		
		C	1	C	2	C	3	C		C	M
Mercury	-0.076	J	-0.084	J	-0.069	J	-0.088	J	-0.0319	J	CV

US EPA-CLP

3-IN
BLANKS

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No.: _____ SDG No.: ME0AC3

Preparation Blank Matrix (soil/water/wipe/filter): _____

Preparation Blank Concentration Units (ug/L, ug, or mg/kg): _____

Analyte	Initial Calibration Blank(ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		
		C	1	C	2	C	3	C		C	M
Mercury			-0.059	J							CV

US EPA-CLP

3-IN
BLANKS

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No.: SDG No.: ME0AC3

Preparation Blank Matrix (soil/water/wipe/filter): SOIL

Preparation Blank Concentration Units (ug/L, ug, or mg/kg): MG/KG

Analyte	Initial Calibration Blank(ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		
		C	1	C	2	C	3	C		C	M
Aluminum	200.000	U	200.000	U	200.000	U	200.000	U	20.000	U	P
Antimony	60.000	U	60.000	U	60.000	U	60.000	U	6.000	U	P
Arsenic	10.000	U	10.000	U	10.000	U	10.000	U	1.000	U	P
Barium	200.000	U	5.793	J	200.000	U	3.324	J	0.308	J	P
Beryllium	5.000	U	5.000	U	5.000	U	5.000	U	0.500	U	P
Cadmium	5.000	U	0.210	J	5.000	U	0.454	J	0.500	U	P
Calcium	5000.000	U	11.067	J	5000.000	U	19.667	J	500.000	U	P
Chromium	10.000	U	10.000	U	10.000	U	10.000	U	1.000	U	P
Cobalt	50.000	U	50.000	U	50.000	U	50.000	U	5.000	U	P
Copper	25.000	U	25.000	U	25.000	U	25.000	U	2.500	U	P
Iron	10.948	J	19.431	J	15.019	J	20.800	J	10.000	U	P
Lead	10.000	U	1.839	J	10.000	U	5.115	J	1.000	U	P
Magnesium	5000.000	U	5000.000	U	5000.000	U	5000.000	U	500.000	U	P
Manganese	15.000	U	15.000	U	15.000	U	1.122	J	1.500	U	P
Nickel	40.000	U	40.000	U	40.000	U	0.593	J	4.000	U	P
Potassium	-212.232	J	-149.597	J	-165.676	J	-95.902	J	-46.452	J	P
Selenium	35.000	U	35.000	U	35.000	U	35.000	U	3.500	U	P
Silver	10.000	U	10.000	U	10.000	U	10.000	U	1.000	U	P
Sodium	5000.000	U	5000.000	U	5000.000	U	5000.000	U	500.000	U	P
Thallium	25.000	U	25.000	U	25.000	U	25.000	U	2.500	U	P
Vanadium	50.000	U	50.000	U	50.000	U	50.000	U	5.000	U	P
Zinc	60.000	U	60.000	U	60.000	U	60.000	U	6.000	U	P

US EPA-CLP

3-IN
BLANKS

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No.: SDG No.: ME0AC3

Preparation Blank Matrix (soil/water/wipe/filter): SOIL

Preparation Blank Concentration Units (ug/L, ug, or mg/kg): MG/KG

Analyte	Initial Calibration Blank(ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		
		C	1	C	2	C	3	C		C	M
Cyanide	10.0000	U	10.0000	U	10.0000	U			0.500	U	AS

US EPA-CLP

3-IN
BLANKS

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No.: _____ SDG No.: ME0AC3

Preparation Blank Matrix (soil/water/wipe/filter): _____

Preparation Blank Concentration Units (ug/L, ug, or mg/kg): _____

Analyte	Initial Calibration Blank(ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Lead	10.000	U	10.000	U	10.000	U					P
Manganese	15.000	U	15.000	U	15.000	U					P

US EPA-CLP

3-IN
BLANKS

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No.: _____ SDG No.: ME0AC3

Preparation Blank Matrix (soil/water/wipe/filter): _____

Preparation Blank Concentration Units (ug/L, ug, or mg/kg): _____

Analyte	Initial Calibration Blank(ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		
		C	1	C	2	C	3	C		C	M
Aluminum	200.000	U	200.000	U	200.000	U	200.000	U			P
Antimony	60.000	U	60.000	U	60.000	U	60.000	U			P
Arsenic	10.000	U	10.000	U	10.000	U	10.000	U			P
Barium	200.000	U	200.000	U	200.000	U	200.000	U			P
Beryllium	5.000	U	0.888	J	5.000	U	5.000	U			P
Cadmium	0.192	J	0.118	J	5.000	U	5.000	U			P
Calcium	16.493	J	5000.000	U	5000.000	U	11.861	J			P
Chromium	10.000	U	10.000	U	10.000	U	10.000	U			P
Cobalt	50.000	U	50.000	U	50.000	U	50.000	U			P
Copper	25.000	U	25.000	U	25.000	U	25.000	U			P
Iron	10.229	J	10.552	J	100.000	U	100.000	U			P
Lead	10.000	U	10.000	U	10.000	U	10.000	U			P
Magnesium	5000.000	U	5000.000	U	5000.000	U	5000.000	U			P
Manganese	1.001	J	15.000	U	15.000	U	15.000	U			P
Nickel	40.000	U	40.000	U	40.000	U	40.000	U			P
Potassium	5000.000	U	5000.000	U	5000.000	U	5000.000	U			P
Selenium	35.000	U	35.000	U	35.000	U	35.000	U			P
Silver	10.000	U	10.000	U	10.000	U	10.000	U			P
Sodium	5000.000	U	5000.000	U	5000.000	U	5000.000	U			P
Thallium	25.000	U	25.000	U	25.000	U	25.000	U			P
Vanadium	50.000	U	50.000	U	50.000	U	50.000	U			P
Zinc	60.000	U	60.000	U	60.000	U	60.000	U			P

US EPA-CLP

5A-IN

MATRIX SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

ME0AC6S

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No.: SDG No.: ME0AC3

Matrix: SOIL

% Solids for Sample: 74.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Antimony	75 - 125	23.7779		6.1342	U	24.99	95		P
Arsenic	75 - 125	12.3999		2.5727		10.00	98		P
Barium	75 - 125	598.2922		15.9799	J	499.83	117		P
Beryllium	75 - 125	14.2692		0.1695	J	12.50	113		P
Cadmium	75 - 125	14.0659		0.2022	J	12.50	111		P
Chromium	75 - 125	63.0788		3.9005		49.98	118		P
Cobalt	75 - 125	143.0664		2.2766	J	124.96	113		P
Copper	75 - 125	75.1190		2.8350	J	62.48	116		P
Lead	75 - 125	13.3410		3.5413		5.00	196	N	P
Manganese	75 - 125	242.1699		83.3204		124.96	127	N	P
Mercury	75 - 125	0.6203		0.1350	U	0.6748	92		CV
Nickel	75 - 125	145.1036		4.0553	J	124.96	113		P
Selenium	75 - 125	13.0478		3.5783	U	12.50	104		P
Silver	75 - 125	13.7807		0.5468	J	12.50	106		P
Thallium	75 - 125	14.4683		2.5559	U	12.50	116		P
Vanadium	75 - 125	152.3631		6.5915		124.96	117		P
Zinc	75 - 125	157.3781		17.6880		124.96	112		P
Cyanide	75 - 125	6.8555		0.6738	U	6.738	102		AS

Comments:

US EPA-CLP

5B-IN

POST-DIGESTION SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

ME0AC6A

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No.: SDG No.: ME0AC3

Matrix: SOIL

Concentration Units: (ug/L or mg/Kg dry weight): mg/kg

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Lead		10.26		3.54		6.2	108.4		P
Manganese		233.00		83.32		164.8	90.8		P

Comments:

US EPA-CLP

6-IN

DUPLICATES

EPA SAMPLE NO.

ME0AC6D

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No.: SDG No.: ME0AC3

Matrix: SOIL

% Solids for Sample: 74.1

Concentration Units: (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		1846.8160		1810.7950		2		P
Antimony		6.1342	U	6.1342	U			P
Arsenic	1.0224	2.5727		2.1473		18		P
Barium		15.9799	J	15.4174	J	4		P
Beryllium		0.1695	J	0.1345	J	23		P
Cadmium		0.2022	J	0.1940	J	4		P
Calcium		15114.5500		14495.4100		4		P
Chromium	1.0224	3.9005		3.8086		2		P
Cobalt		2.2766	J	2.2319	J	2		P
Copper	2.5559	2.8350		2.6910		5		P
Iron		6172.5760		5863.0000		5		P
Lead	1.0224	3.5413		3.4203		3		P
Magnesium		4931.4730		4775.4770		3		P
Manganese		83.3204		80.7669		3		P
Mercury		0.1350	U	0.1350	U			CV
Nickel	4.0895	4.0553	J	4.0962		1		P
Potassium		185.7821	J	179.4053	J	3		P
Selenium		3.5783	U	3.5783	U			P
Silver		0.5468	J	0.5189	J	5		P
Sodium		101.5108	J	97.1973	J	4		P
Thallium		2.5559	U	2.5559	U			P
Vanadium	5.1118	6.5915		6.0716		8		P
Zinc	6.1342	17.6880		16.9068		5		P
Cyanide		0.6734	U	0.6733	U			AS

US EPA-CLP

9-IN

METHOD DETECTION LIMITS (MDL) (ANNUALLY)

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No. _____ SDG No.: ME0AC3

Instrument Type: CV Instrument ID: CV1 Date: 01/10/2013

Preparation Method: 7470A

Concentration Units (ug/L, mg/kg, or ug): UG/L

Analyte	Wavelength/Mass	MDL
Mercury	253.70	0.011

Comments: _____

US EPA-CLP

9-IN

METHOD DETECTION LIMITS (MDL) (ANNUALLY)

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No. _____ SDG No.: ME0AC3

Instrument Type: CV Instrument ID: CV1 Date: 01/10/2013

Preparation Method: 7471B

Concentration Units (ug/L, mg/kg, or ug): MG/KG

Analyte	Wavelength/Mass	MDL
Mercury	253.70	0.0082

Comments: _____

US EPA-CLP

9-IN
METHOD DETECTION LIMITS (MDL) (ANNUALLY)

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No. _____ SDG No.: ME0AC3

Instrument Type: AS Instrument ID: CN Date: 01/03/2013

Preparation Method: Midi-distillation

Concentration Units (ug/L, mg/kg, or ug): UG/L

Analyte	Wavelength/Mass	MDL
Cyanide	578.00	1.8

Comments: _____

US EPA-CLP

9-IN

METHOD DETECTION LIMITS (MDL) (ANNUALLY)

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No. _____ SDG No.: ME0AC3

Instrument Type: AS Instrument ID: CN Date: 01/03/2013

Preparation Method: Midi-distillation

Concentration Units (ug/L, mg/kg, or ug): MG/KG

Analyte	Wavelength/Mass	MDL
Cyanide	578.00	0.084

Comments: _____

US EPA-CLP

9-IN
METHOD DETECTION LIMITS (MDL) (ANNUALLY)

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No. _____ SDG No.: ME0AC3

Instrument Type: P Instrument ID: P5 Date: 01/16/2013

Preparation Method: 200.7

Concentration Units (ug/L, mg/kg, or ug): UG/L

Analyte	Wavelength/Mass	MDL
Aluminum	396.10	22.5
Antimony	206.83	2.4
Arsenic	189.04	2.7
Barium	493.41	1.6
Beryllium	234.80	0.85
Cadmium	214.40	0.083
Calcium	373.60	9.7
Chromium	267.72	4.5
Cobalt	228.62	0.59
Copper	324.75	3.4
Iron	259.80	9.7
Lead	220.35	1.8
Magnesium	279.08	42.6
Manganese	257.61	0.88
Nickel	231.60	0.44
Potassium	769.80	93.5
Selenium	196.02	4.4
Silver	328.07	0.59
Sodium	818.30	196
Thallium	190.86	1.0
Vanadium	292.40	5.7
Zinc	213.80	8.4

Comments: _____

US EPA-CLP

9-IN

METHOD DETECTION LIMITS (MDL) (ANNUALLY)

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No. _____ SDG No.: ME0AC3

Instrument Type: P Instrument ID: P5 Date: 01/16/2013

Preparation Method: 3050B

Concentration Units (ug/L, mg/kg, or ug): MG/KG

Analyte	Wavelength/Mass	MDL
Aluminum	396.10	1.7
Antimony	206.83	0.20
Arsenic	189.04	0.29
Barium	493.41	0.28
Beryllium	234.80	0.056
Cadmium	214.40	0.0094
Calcium	373.60	1.3
Chromium	267.72	0.45
Cobalt	228.62	0.036
Copper	324.75	0.39
Iron	259.80	0.81
Lead	220.35	0.071
Magnesium	279.08	3.5
Manganese	257.61	0.062
Nickel	231.60	0.058
Potassium	769.80	14.6
Selenium	196.02	0.35
Silver	328.07	0.035
Sodium	818.30	44.2
Thallium	190.86	0.23
Vanadium	292.40	0.39
Zinc	213.80	0.59

Comments: _____

US EPA-CLP

12-IN

PREPARATION LOG

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No. SDG No.: ME0AC3

Preparation Method: 3050B

EPA Sample No.	Preparation Date	Initial Weight/Volume (g) or (mL)	Final Volume (mL)
ME0AC7	07/29/2013	1.21	100
ME0AC8	07/29/2013	1.31	100
ME0AC9	07/29/2013	1.40	100
ME0AD0	07/29/2013	1.17	100
ME0AD1	07/29/2013	1.44	100
ME0AD2	07/29/2013	1.27	100
ME0AD3	07/29/2013	1.42	100
ME0AC4	07/29/2013	1.32	100
PBS01	07/29/2013	1.00	100
ME0AC3	07/29/2013	1.13	100
LCS01	07/29/2013	1.00	100
ME0AC5	07/29/2013	1.44	100
ME0AC6	07/29/2013	1.31	100
ME0AC6D	07/29/2013	1.32	100
ME0AC6S	07/29/2013	1.08	100

US EPA-CLP

12-IN

PREPARATION LOG

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No. SDG No.: ME0AC3

Preparation Method: Midi-distillation

EPA Sample No.	Preparation Date	Initial Weight/Volume (g) or (mL)	Final Volume (mL)
S0.0	07/29/2013	50.00	50
S5.0	07/29/2013	50.00	50
S10.0	07/29/2013	50.00	50
S100.0	07/29/2013	50.00	50
S250.0	07/29/2013	50.00	50
S500.0	07/29/2013	50.00	50
ICV01	07/29/2013	50.00	50
ICB01	07/29/2013	50.00	50
CCV01	07/29/2013	50.00	50
CCB01	07/29/2013	50.00	50
PBS03	07/29/2013	1.00	50
ME0AC3	07/29/2013	1.00	50
ME0AC4	07/29/2013	1.00	50
ME0AC5	07/29/2013	1.00	50
ME0AC7	07/29/2013	1.00	50
ME0AC8	07/29/2013	1.00	50
ME0AC9	07/29/2013	1.00	50
ME0AD0	07/29/2013	1.00	50
ME0AD1	07/29/2013	1.00	50
ME0AD2	07/29/2013	1.00	50
ME0AD3	07/29/2013	1.00	50
ME0AC6	07/29/2013	1.00	50
ME0AC6D	07/29/2013	1.00	50
ME0AC6S	07/29/2013	1.00	50
CCV02	07/29/2013	50.00	50
CCB02	07/29/2013	50.00	50

US EPA-CLP

12-IN

PREPARATION LOG

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No. SDG No.: ME0AC3

Preparation Method: 7471B

EPA Sample No.	Preparation Date	Initial Weight/Volume (g) or (mL)	Final Volume (mL)
S0.0	07/30/2013	100.00	100
S0.2	07/30/2013	100.00	100
S2.5	07/30/2013	100.00	100
S5.0	07/30/2013	100.00	100
S7.5	07/30/2013	100.00	100
S10.0	07/30/2013	100.00	100
ICV11	07/30/2013	100.00	100
ICB11	07/30/2013	100.00	100
CCV34	07/30/2013	100.00	100
CCB34	07/30/2013	100.00	100
CCV35	07/30/2013	100.00	100
CCB35	07/30/2013	100.00	100
PBS02	07/30/2013	0.50	100
ME0AC3	07/30/2013	0.54	100
ME0AC4	07/30/2013	0.54	100
ME0AC5	07/30/2013	0.55	100
ME0AC6	07/30/2013	0.50	100
ME0AC6D	07/30/2013	0.50	100
ME0AC6S	07/30/2013	0.50	100
ME0AC7	07/30/2013	0.52	100
ME0AC8	07/30/2013	0.53	100
ME0AC9	07/30/2013	0.55	100
ME0AD0	07/30/2013	0.53	100
ME0AD1	07/30/2013	0.53	100
ME0AD2	07/30/2013	0.57	100
ME0AD3	07/30/2013	0.53	100
CCV36	07/30/2013	100.00	100
CCB36	07/30/2013	100.00	100
CCV37	07/30/2013	100.00	100
CCB37	07/30/2013	100.00	100

US EPA-CLP

13-IN

ANALYSIS RUN LOG

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No _____ SDG No.: ME0AC3

Instrument ID: CV1 Analysis Method: CV

Start Date: 07/31/2013 End Date: 07/31/2013

EPA Sample NO.	D/F	Time	Analytes																									
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN		
S0.0	1.0	0950															X											
S0.2	1.0	0952															X											
S2.5	1.0	0954															X											
S5.0	1.0	0956															X											
S7.5	1.0	0958															X											
S10.0	1.0	1000															X											
ICV11	1.0	1003															X											
ICB11	1.0	1005															X											
CCV34	1.0	1007															X											
CCB34	1.0	1009															X											
ZZZZZZ	1.0	1011																										
ZZZZZZ	1.0	1014																										
ZZZZZZ	1.0	1016																										
ZZZZZZ	1.0	1018																										
ZZZZZZ	1.0	1020																										
ZZZZZZ	1.0	1022																										
ZZZZZZ	1.0	1024																										
ZZZZZZ	1.0	1026																										
ZZZZZZ	1.0	1028																										
ZZZZZZ	1.0	1030																										
ZZZZZZ	1.0	1033																										
ZZZZZZ	1.0	1035																										
ZZZZZZ	1.0	1037																										
ZZZZZZ	1.0	1039																										
ZZZZZZ	1.0	1041																										
ZZZZZZ	1.0	1043																										
ZZZZZZ	1.0	1045																										
ZZZZZZ	1.0	1047																										
ZZZZZZ	1.0	1050																										
ZZZZZZ	1.0	1052																										
CCV35	1.0	1054															X											
CCB35	1.0	1056															X											
PBS02	1.0	1058															X											
ME0AC3	1.0	1100															X											
ME0AC4	1.0	1102															X											
ME0AC5	1.0	1104															X											
ME0AC6	1.0	1106															X											

US EPA-CLP

13-IN

ANALYSIS RUN LOG

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No _____ SDG No.: ME0AC3

Instrument ID: CV1 Analysis Method: CV

Start Date: 07/31/2013 End Date: 07/31/2013

EPA Sample NO.	D/F	Time	Analytes																									
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN		
ME0AC6D	1.0	1109															X											
ME0AC6S	1.0	1111															X											
ME0AC7	1.0	1113															X											
ME0AC8	1.0	1115															X											
ME0AC9	1.0	1117															X											
ME0AD0	1.0	1119															X											
ME0AD1	1.0	1121															X											
ME0AD2	1.0	1123															X											
ME0AD3	1.0	1126															X											
ZZZZZZ	1.0	1128																										
ZZZZZZ	1.0	1130																										
ZZZZZZ	1.0	1132																										
ZZZZZZ	1.0	1134																										
ZZZZZZ	1.0	1136																										
ZZZZZZ	1.0	1138																										
CCV36	1.0	1140															X											
CCB36	1.0	1143															X											
ZZZZZZ	1.0	1145																										
ZZZZZZ	1.0	1147																										
ZZZZZZ	1.0	1149																										
ZZZZZZ	1.0	1151																										
ZZZZZZ	1.0	1153																										
ZZZZZZ	1.0	1155																										
ZZZZZZ	1.0	1157																										
ZZZZZZ	1.0	1200																										
CCV37	1.0	1208															X											
CCB37	1.0	1210															X											

US EPA-CLP

13-IN

ANALYSIS RUN LOG

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No _____ SDG No.: ME0AC3

Instrument ID: CN Analysis Method: AS

Start Date: 07/31/2013 End Date: 07/31/2013

EPA Sample NO.	D/F	Time	Analytes																								
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN		
S0.0	1.0	1458																								X		
S5.0	1.0	1458																								X		
S10.0	1.0	1458																								X		
S100.0	1.0	1458																								X		
S250.0	1.0	1458																								X		
S500.0	1.0	1458																								X		
ICV01	1.0	1612																								X		
ICB01	1.0	1612																								X		
CCV01	1.0	1612																								X		
CCB01	1.0	1612																								X		
PBS03	1.0	1612																								X		
ME0AC3	1.0	1612																								X		
ME0AC4	1.0	1612																								X		
ME0AC5	1.0	1612																								X		
ME0AC7	1.0	1618																								X		
ME0AC8	1.0	1618																								X		
ME0AC9	1.0	1618																								X		
ME0AD0	1.0	1618																								X		
ME0AD1	1.0	1618																								X		
ME0AD2	1.0	1618																								X		
ME0AD3	1.0	1618																								X		
ME0AC6	1.0	1636																								X		
ME0AC6D	1.0	1636																								X		
ME0AC6S	1.0	1636																								X		
CCV02	1.0	1636																								X		
CCB02	1.0	1636																								X		

US EPA-CLP

13-IN

ANALYSIS RUN LOG

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No SDG No.: ME0AC3

Instrument ID: P5 Analysis Method: P

Start Date: 07/31/2013 End Date: 07/31/2013

EPA Sample NO.	D/F	Time	Analytes																								
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN		
S0	1.0	1038	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
S	1.0	1042	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
S	1.0	1047	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
S	1.0	1050	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
S	1.0	1054	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
S	1.0	1058	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
S	1.0	1102	X						X				X		X							X						
ICV15	1.0	1117	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ICB15	1.0	1120	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ICSA15	1.0	1125	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ICSAB15	1.0	1129	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCV16	1.0	1133	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCB16	1.0	1137	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
PBS01	1.0	1141	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME0AC3	1.0	1201	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
LCS01	1.0	1205	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCV17	1.0	1209	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCB17	1.0	1213	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME0AC5	1.0	1217	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME0AC6	1.0	1221	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME0AC6L	5.0	1225	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME0AC6D	1.0	1229	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME0AC6S	1.0	1233		X	X	X	X	X		X	X	X		X		X		X		X	X		X	X	X			
ME0AC7	1.0	1237	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME0AC8	1.0	1241	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME0AC9	1.0	1245	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME0AD0	1.0	1249	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME0AD1	1.0	1253	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME0AD2	1.0	1257	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME0AD3	1.0	1301	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCV18	1.0	1305	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCB18	1.0	1309	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			

US EPA-CLP

13-IN

ANALYSIS RUN LOG

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No _____ SDG No.: ME0AC3

Instrument ID: P5 Analysis Method: P

Start Date: 08/01/2013 End Date: 08/01/2013

EPA Sample NO.	D/F	Time	Analytes																									
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN		
S0	1.0	1159												X		X												
S	1.0	1203												X		X												
S	1.0	1208												X		X												
S	1.0	1212												X		X												
S	1.0	1215												X		X												
S	1.0	1219												X		X												
S	1.0	1223																										
ICV16	1.0	1228												X		X												
ICB16	1.0	1232												X		X												
ICSA16	1.0	1236	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ICSAB16	1.0	1240	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCV36	1.0	1244												X		X												
CCB36	1.0	1248												X		X												
ME0AC6A	1.0	1400												X		X												
CCV37	1.0	1404												X		X												
CCB37	1.0	1408												X		X												

US EPA-CLP

13-IN

ANALYSIS RUN LOG

Lab Name: Chemtech Contract: EPW09038

Lab Code: CHEM Case No.: 43638 Mod. Ref. No _____ SDG No.: ME0AC3

Instrument ID: P5 Analysis Method: P

Start Date: 08/06/2013 End Date: 08/06/2013

EPA Sample NO.	D/F	Time	Analytes																									
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN		
S0	1.0	1708	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
S	1.0	1712	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
S	1.0	1716	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
S	1.0	1720	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
S	1.0	1724	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
S	1.0	1728	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ICV17	1.0	1745	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ICB17	1.0	1749	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ICSA17	1.0	1753	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ICSAB17	1.0	1757	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCV44	1.0	1801	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCB44	1.0	1805	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCV45	1.0	1833	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCB45	1.0	1838	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME0AC4	1.0	1854	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCV46	1.0	1906	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCB46	1.0	1910	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY ~ REGION V

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Sample Delivery Group: MEDAG3 CERCLIS No: FLN000510872

Case No: 43638 Site Name/Location: CASTLE CONSTRUCTION-FL

Contractor or EPA Lab: ChemTech Data User: Weston

No. of Samples: 11 Date Sampled or Date Received: 9 Aug 2013

Have Chain-of-Custody records been received? Yes ✓ No ____

Have traffic reports or packing lists been received? Yes ✓ No ____

If no, are traffic reports or packing list numbers written on the Chain-of-Custody Record?

Yes ____ No ____

If no, which traffic report or packing list numbers are missing?

Are basic data forms in? Yes ✓ No ____

No of samples claimed: 11 No. of samples received: ____

Received by: [illegible] Date: 9 Aug 2013

Received by LSSS: [illegible] Date: 9 Aug 13

Review started: 8-13-13 Reviewer Signature: [illegible]

Total time spent on review: 15.5 + 4 per 8/20/13 Date review completed: 8-14-13

Copied by: A. C. Harvey Date: August 21, 2013

Mailed to user by: [illegible] Date: 23 AUG 13

DATA USER:

Please fill in the blanks below and return this form to:

Sylvia Griffin, Data Mgmt. Coordinator, Region V, ML-10C

Data received by: ____ Date: ____

Data review received by: ____ Date: ____

Inorganic Data Complete	[ ] Suitable for Intended Purpose [ ] T if OK
Organic Data Complete	[ ] Suitable for Intended Purpose [ ] T if OK
Dioxin data Complete	[ ] Suitable for Intended Purpose [ ] T if OK
SAS Data Complete	[ ] Suitable for Intended Purpose [ ] T if OK

PROBLEMS: Please indicate reasons why data are not suitable for your uses.

Received by Data Mgmt. Coordinator for Files. Date: ____

ESAT Controlled Number: ESAT5.417.00560-PJ, 23 Aug 13

DATE: August 23, 2013

Weston Solutions, Inc.
ATTN: **Ms. Tonya Balla**
750 East Bunker Court – Suite 500
Vernon Hills, IL 60061-1450

Site Name: **Castle Construction - IL – level 3 data validation**

Case	Lab	Samples	SDG	Matrix
43638	Mitkem	20	E0AA5	soil

Analysis: trace volatiles/semivolatiles

Upon receipt of data, please check each package for completeness and note any missing deliverables below.

PLEASE! Send this form back to Sylvia Griffin, Data Management Coordinator after filling in the blanks below.

Data Received by:_____ Date:_____

PROBLEMS:

Please indicate if data is complete, and note if there are any deliverables missing from the cases noted above.

_____

_____

Received by Data Management Coordinator, CRL for file.

Signature:_____ Date:_____

FROM: **U.S. EPA - Region 5**
Sylvia Griffin
Central Regional Laboratory
536 S. Clark, 10th Floor
Chicago, IL 60605

Sent By: Pat Joyner
Data Coordinator
ESAT Region 5/**TechLaw**

Controlled Document

ESAT5.416.00282
acf
8-21-13

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V
SUPERFUND DIVISION

DATE:

SUBJECT: Review of Data
Received for Review on: August 8, 2013

FROM: Timothy Prendiville, Supervisor (SR-6J)
Superfund Contract Management Section

TO: Data User: Weston
Email address: t.balla@westonsolutions.com

Level 3 Data Validation for EXES Database

We have reviewed the data for the following case:

Site Name: Castle Construction (IL)

Case Number: 43638 SDG Number: E0AA5

Number and Type of Samples: 20 Soils (Low Volatiles, Semivolatiles)

Sample Numbers: E0AA5, E0AA6, E0AA8, E0AA9, E0AB0 – E0AB9, E0AC0 – E0AC5

Laboratory: Mitkem (Spectrum Analytical) Hrs for Review: _____

Following are our findings:

CC: Howard Pham
Region 5 TPO
Mail Code: SA-5J

Case Number: 43638
Site Name: Castle Construction (IL)

SDG Number: E0AA5
Laboratory: Mitkem

Below is a summary of the out-of-control audits and the possible effects on the data for this case:

Twenty (20) soil samples labeled E0AA5, E0AA6, E0AA8, E0AA9, E0AB0 thru E0AB9, and E0AC0 thru E0AC5; were collected between July 23 and 25, 2013. The samples were received by Spectrum Analytical (Mitkem) in North Kingstown, RI between July 24 and 26, 2013. All samples were received intact and within the proper shipping temperature range of 2 - 6°.

All samples were analyzed for the low level volatile and semivolatile target compounds. All samples were analyzed according to CLP SOW SOM01.2 (6/2007) and reviewed according to the NFG for SOM01.2 and the SOP for ESAT 5/TechLaw Validation of Contract Laboratory Program Organic Data (Version 2.6.2).

Sample E0AB2 was designated by the samplers to be used for laboratory QC, i.e. MS / MSD analyses.

No samples were identified as trip blanks or field blanks. Sample E0AB1 was identified as a field duplicate of sample E0AB0. Sample E0AC4 was identified as a field duplicate of sample E0AC3.

Reviewed by: Christina Rice / Techlaw-ESAT
Date: August 16, 2013

Case Number: 43638
Site Name: Castle Construction (IL)

SDG Number: E0AA5
Laboratory: Mitkem

1. HOLDING TIME

No problems were found.

2. GC/MS TUNING AND GC INSTRUMENT PERFORMANCE

No problems were found.

3. CALIBRATION

The following low level volatile samples are associated with an initial calibration in which a surrogate/DMC exceeded percent relative standard deviation (%RSD) criteria. Detected and non-detected compounds are not qualified.

> E0AA5, E0AA6, E0AA8, E0AA9, E0AB0, E0AB1, E0AB2, E0AB2MS, E0AB2MSD, E0AB3, E0AB4, E0AB5, E0AB6, E0AB7, E0AB8, E0AB9, E0AC0, E0AC1, E0AC2, E0AC3, E0AC4, E0AC5, VBLKT5, VBLKX5, VHBLKX5
> Vinyl chloride-d_3, 1,1-Dichloroethene-d_2

The following low level volatile samples are associated with an initial calibration and CCVs in which a DMC did not meet relative response factor (RRF) criteria. Detected and non-detected compounds are not qualified.

> E0AA5, E0AA6, E0AA8, E0AA9, E0AB0, E0AB1, E0AB2, E0AB2MS, E0AB2MSD, E0AB3, E0AB4, E0AB5, E0AB6, E0AB7, E0AB8, E0AB9, E0AC0, E0AC1, E0AC2, E0AC3, E0AC4, E0AC5, VBLKT5, VBLKX5, VHBLKX5
> 1,4-Dioxane-d_8

The following semivolatile samples are associated with an initial calibration percent relative standard deviation (%RSD) outside criteria. Detected compounds are qualified "J". Non-detected compounds are not qualified.

> E0AA5, E0AA6, E0AA8, E0AA9, E0AB0, E0AB1, E0AB2, E0AB2MS, E0AB2MSD, E0AB3, E0AB4, E0AB5, E0AB6, E0AB7, E0AB8, E0AB9, E0AC0, E0AC1, E0AC2, E0AC3, E0AC4, E0AC5, SBLK4R
> Pentachlorophenol

4. BLANKS

The following low level volatile samples have common contaminant analyte concentrations reported less than 2x the CRQL. The associated method blank has common contaminant analyte concentration less than 2x the concentration criteria. Detected compounds are qualified "U". Non-detected compounds are not qualified. Reported sample concentrations have been elevated to 2x the CRQL.

Methylene chloride
E0AC2

The following semivolatile samples have TIC concentrations reported less than 5X the associated method blank concentration. Detected compounds are re-qualified "U" and deleted from the TIC report.

Unknown @ 2.83; Unknown @ 2.93; Unknown @ 2.95; Unknown @ 3.01; Unknown @ 3.04; Unknown @ 5.56
E0AA5, E0AA6, E0AA8, E0AA9, E0AB0, E0AB1, E0AB2, E0AB3, E0AB4, E0AB5, E0AB6, E0AB7, E0AB8, E0AB9, E0AC0, E0AC1, E0AC2, E0AC3, E0AC4, E0AC5

Unknown @ 2.90
E0AA5, E0AB6

Unknown @ 3.08
E0AA5, E0AA8, E0AA9, E0AB0, E0AB1, E0AB2, E0AB3, E0AB4, E0AB5, E0AB6, E0AB7, E0AB8, E0AB9, E0AC0, E0AC1, E0AC2, E0AC3, E0AC4, E0AC5

5. DEUTERATED MONITORING COMPOUND AND SURROGATE RECOVERY

The following low level volatile samples have DMC/SMC recoveries above the upper limit of the criteria window. The compounds were not detected in the samples. Non-detected compounds are not qualified.

E0AB0
Dichlorodifluoromethane, Chloromethane, Bromomethane, Chloroethane, Carbon disulfide

E0AC3
Dichlorodifluoromethane, Chloromethane, Vinyl chloride, Bromomethane, Chloroethane, Carbon disulfide, Cyclohexane, Methylcyclohexane, 1,2-Dichloropropane, Bromodichloromethane

E0AC5
Dichlorodifluoromethane, Chloromethane, Vinyl chloride, Bromomethane, Chloroethane, Carbon disulfide

The following semivolatile samples have deuterated monitoring compound recovery below the lower limit of the criteria window. Detected compounds are qualified "J". Non-detected compounds are qualified "UJ".

E0AA6, E0AA8, E0AB1, E0AB2MSD, E0AB3, E0AB5, E0AB8, E0AB9, E0AC0, E0AC4
Fluoranthene, Pyrene, Benzo(a)anthracene, Chrysene

6A. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Sample E0AB2 was designated by the samplers to be used for laboratory QC, i.e. MS / MSD analyses.

The following semivolatile matrix spike/matrix spike duplicate samples have percent recoveries greater than or equal to the expanded lower acceptance limit (5%) but less than the primary lower acceptance limit. The compounds were not detected in the unspiked sample, E0AB2. Non-detected compounds in the unspiked sample are qualified "UJ".

E0AB2MS
Pyrene

E0AB2MSD
N-Nitroso-di-n-propylamine, Pyrene

6B. LABORATORY CONTROL SAMPLE

Not applicable to the low level volatile and semivolatile analyses.

7. FIELD BLANK AND FIELD DUPLICATE

No samples were identified as trip blanks or field blanks.

Sample E0AB1 was identified as a field duplicate of sample E0AB0. Sample E0AC4 was identified as a field duplicate of sample E0AC3. Results are summarized in the following tables:

Sample ID **DF** **Units** **Semivolatile Analytes**	**E0AB0** 1 ug/Kg	**E0AB1** 1 ug/Kg	**RPD**
Butylbenzylphthalate	41	38	7.6
bis(2-Ethylhexyl)phthalate	38	38	0
#SVOA TICs	18	20	11

Sample ID DF Units Semivolatile Analytes	E0AC3 1 ug/Kg	E0AC4 1 ug/Kg	RPD
Di-n-butylphthalate	45	43	4.5
Butylbenzylphthalate	62	51	19
bis(2-Ethylhexyl)phthalate	160	130	21
#SVOA TICs	12	12	0

Results are not qualified based upon the results of the field duplicates.

8. INTERNAL STANDARDS

No problems were found.

9. COMPOUND IDENTIFICATION

After reviewing the mass spectra and chromatograms it appears that all low level volatile and semivolatile compounds were properly identified.

10. COMPOUND QUANTITATION AND REPORTED DETECTION LIMITS

The following volatile samples have compound concentrations less than the CRQL. Detected compounds are qualified "J".

VBLKT5
Methylene chloride

The following semivolatile samples have compound concentrations less than the CRQL. Detected compounds are qualified "J".

E0AB0, E0AB1, E0AB3, E0AB5, E0AB6, E0AB8, E0AB9, E0AC1, E0AC5
Butylbenzylphthlate, bis(2-Ethylhexyl)phthalate

E0AB2MS, E0AB7, E0AC0, E0AC2
Butylbenzylphthlate

E0AC3, E0AC4
Di-n-butylphthlate, Butylbenzylphthlate, bis(2-Ethylhexyl)phthalate

A library search indicates a match at or above 85% for a TIC compound in the semivolatile samples. Detected compounds are qualified "NJ". See Section 12 for additional information.

CAS No. 80-05-7 Phenol, 4,4'-(1-methylethylidene)bis- @ 10.46
E0AB3, E0AB4, E0AB5, E0AB6, E0AB9, E0AC1

CAS No. 111-06-8 Hexadecanoic acid, butyl ester @ 10.41
E0AA8, E0AB2, E0AB9, E0AC0, E0AC1

CAS No. 112-84-5 13-Docosenamide, (Z)- @ 12.81
E0AB4, E0AB5, E0AB6, E0AC2

CAS No. 143-07-7 Dodecanoic acid
E0AC3

CAS No. 646-13-9 Octadecanoic acid, 2-methylpropylester @ 11.26
E0AC1

CAS No. 58801-23-3 Hop-22(29)-en-3.beta-ol
E0AB7

CAS No. 1000130-97-9 E-15-Heptadecenal
E0AC0

CAS No. 1000214-20-7 Stigmasterol, 22,23-dihydro-
E0AB9

A library search indicates a match below 85% for a TIC compound in the semivolatile samples. Detected compounds are qualified "J". See Section 12 for additional information.

Unknown @ 2.83; Unknown @ 2.90; Unknown @ 2.93; Unknown @ 2.95;
Unknown @ 3.01; Unknown @ 3.04; Unknown @ 3.08; Unknown @ 3.91;
Unknown @ 5.56
SBLK4R

Unknown @ 3.24
E0AA6, E0AA8, E0AB0

Unknown @ 3.42
E0AA8, E0AA9, E0AB1, E0AB2, E0AC0, E0AC1, E0AC4

Unknown @ 3.62; Unknown @ 6.75
E0AA5, E0AA6, E0AA8, E0AA9, E0AB0, E0AB1, E0AB2, E0AB3, E0AB4, E0AB5, E0AB6, E0AB7, E0AB8, E0AB9, E0AC0, E0AC1, E0AC2, E0AC3, E0AC4, E0AC5

Unknown @ 3.73
E0AA5, E0AA8, E0AA9, E0AB0, E0AB1, E0AB2, E0AB3, E0AB4, E0AB5, E0AB6, E0AB7, E0AB9, E0AC0, E0AC1, E0AC3, E0AC4, E0AC5

Unknown @ 3.89
E0AB7

Unknown @ 3.93
E0AB0

Unknown @ 4.08
E0AC5

Unknown @ 4.14
E0AB5

Unknown @ 4.42
E0AA5, E0AA6, E0AA9, E0AB1, E0AB2, E0AB3, E0AB4, E0AB5, E0AB6, E0AB7, E0AB8, E0AB9, E0AC0, E0AC1, E0AC2, E0AC3, E0AC4, E0AC5

Unknown @ 4.70
E0AB3, E0AB7, E0AB9, E0AC2, E0AC3

Unknown @ 4.98
E0AB0, E0AB1

Unknown @ 5.11
E0AB2

Unknown @ 5.14
E0AA5, E0AA6, E0AB1, E0AB4, E0AB6, E0AB7

Unknown @ 5.37
E0AA5, E0AA6, E0AA8, E0AA9, E0AB0, E0AB1, E0AB2, E0AB3, E0AB4, E0AB5, E0AB6, E0AB7, E0AB8, E0AB9, E0AC0, E0AC1, E0AC2, E0AC3, E0AC4, E0AC5

Unknown @ 6.40
E0AA5, E0AA6, E0AA8, E0AA9, E0AB1, E0AB2, E0AB3, E0AB6, E0AB7, E0AB9, E0AC1, E0AC2, E0AC5

Unknown @ 7.08
E0AB0, E0AB2, E0AC1

Unknown @ 7.18; Unknown @ 14.93
E0AA6

Unknown @ 7.42
E0AA9, E0AB2, E0AC4

Unknown @ 7.99; Unknown @ 9.89; Unknown @ 11.28
E0AB3

Unknown @ 8.89
E0AB7, E0AC4

Unknown @ 8.93
E0AB4

Unknown @ 8.96
E0AB9

Unknown @ 9.98
E0AB3, E0AB4, E0AB5, E0AB6, E0AB8, E0AC0, E0AC1

Unknown @ 10.10
E0AB5, E0AB7, E0AC0, E0AC1

Unknown @ 10.22
E0AB8, E0AC1, E0AC3, E0AC4

Unknown @ 10.40
E0AC2

Unknown @ 10.46
E0AB7, E0AC0

Unknown @ 11.20
E0AA5, E0AA6, E0AA8, E0AA9, E0AB0, E0AB1, E0AB2, E0AB3, E0AB4, E0AB5, E0AB6, E0AB7, E0AB8, E0AB9, E0AC1, E0AC2, E0AC3, E0AC4, E0AC5

Unknown @ 11.26
E0AA8, E0AB2, E0AB9, E0AC0

Unknown @ 11.29
E0AB8

Unknown @ 11.30
E0AB6, E0AB7

Unknown @ 11.50
E0AB7, E0AC3

Unknown @ 11.73
E0AA8, E0AA9, E0AB0, E0AB1, E0AB2, E0AB3, E0AB7, E0AC0, E0AC1

Unknown @ 12.48
E0AB1, E0AB7

Unknown @ 12.74; Unknown @ 15.51
E0AA5

Unknown @ 12.81
E0AA5, E0AA6, E0AA8, E0AA9, E0AB0, E0AB1, E0AB2, E0AB3, E0AB7, E0AB8, E0AB9, E0AC0, E0AC1, E0AC3, E0AC4, E0AC5

Unknown @ 12.94
E0AB3, E0AB7, E0AB8, E0AB9, E0AC0, E0AC1, E0AC2, E0AC3, E0AC4, E0AC5

Unknown @ 13.02
E0AA6, E0AA8

Unknown @ 13.26
E0AA6, E0AA8, E0AB5, E0AB9

Unknown @ 14.21
E0AA6, E0AA9, E0AB0, E0AB1, E0AB7, E0AB9

Unknown @ 15.36
E0AA6, E0AA8, E0AB0, E0AB1, E0AB2

Unknown @ 15.71
E0AA5, E0AB0, E0AB1

Unknown @ 16.00
E0AA8, E0AB0, E0AB1, E0AB7

Unknown @ 16.20; Unknown @ 16.42; Unknown @ 16.99
E0AA6, E0AB0, E0AB1

Unknown @ 16.51; Unknown @ 16.57
E0AB9

Unknown @ 16.90
E0AB8, E0AB9

Unknown @ 18.35
E0AB6, E0AB9, E0AC0

11. SYSTEM PERFORMANCE

GC/MS baseline indicated acceptable performance.

12. ADDITIONAL INFORMATION

TICs with no CAS Numbers were not reported in the EXES Sample Summary Report for the semivolatile fraction. Please refer to Word document "43638 SDG E0AA5 TIC Report" for the validated TIC results.

The following semivolatile samples had an Alkane incorrectly listed on the Form I and NFG Report 9 (TIC Report). The compound was removed by the reviewer.

Octadecane @ 12.48
E0AB9

The following semivolatile samples have a compound identified by CAS No. in some samples and as an Unknown TIC in other samples. A comparison of the chromatograms demonstrated that the same compound was present in the respective samples. Copies of the chromatograms are included with the validation report.

CAS No. 80-05-7 Phenol, 4,4'-(1-methylethylidene)bis- @ 10.46
E0AB3, E0AB4, E0AB5, E0AB6, E0AB9, E0AC1
vs
Unknown @ 10.46
E0AB7, E0AC0

CAS No. 111-06-8 Hexadecanoic acid, butyl ester @ 10.41
E0AA8, E0AB2, E0AB9, E0AC0, E0AC1
vs
Unknown @ 10.40
E0AC2

CAS No. 112-84-5 13-Docosenamide, (Z)- @ 12.81
E0AB4, E0AB5, E0AB6, E0AC2

vs

Unknown @ 12.81
E0AA5, E0AA6, E0AA8, E0AA9, E0AB0, E0AB1, E0AB2, E0AB3, E0AB7, E0AB8, E0AB9, E0AC0, E0AC1, E0AC3, E0AC4, E0AC5

CAS No. 646-13-9 Octadecanoic acid, 2-methylpropylester @ 11.26
E0AC1

vs

Unknown @ 11.26
E0AA8, E0AB2, E0AB9, E0AC0

Case Number: 43638
Site Name: Castle Construction (IL)

SDG Number: E0AA5
Laboratory: Mitkem

CADRE Data Qualifier Sheet

Qualifiers	Data Qualifier Definitions
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J	The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the action limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a tentative identification.
NJ	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a tentative identification and the associated numerical value represents its approximate concentration.
R	The data are unusable. (The compound may or may not be present.)

Reviewed by: Christina Rice / Techlaw-ESAT
Date: August 16, 2013

Sample Summary Report

Case No:	43638	Contract:	EPW11033	SDG No:	E0AA5	Lab Code:	MITKEM
Sample Number:	E0AA5	Method:	BNA	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SO08-(12-24)-072313	pH:	7.0	Sample Date:	07/23/2013	Sample Time:	16:15:00
% Moisture :	14.60177			% Solids :			

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Benzaldehyde	200	ug/Kg	1.0	U	U	Yes	
Phenol	200	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethyl)ether	200	ug/Kg	1.0	U	U	Yes	
2-Chlorophenol	200	ug/Kg	1.0	U	U	Yes	
2-Methylphenol	200	ug/Kg	1.0	U	U	Yes	
2,2'-Oxybis(1-chloropropane)	200	ug/Kg	1.0	U	U	Yes	
Acetophenone	200	ug/Kg	1.0	U	U	Yes	
4-Methylphenol	200	ug/Kg	1.0	U	U	Yes	
N-Nitroso-di-n-propylamine	200	ug/Kg	1.0	U	U	Yes	
Hexachloroethane	200	ug/Kg	1.0	U	U	Yes	
Nitrobenzene	200	ug/Kg	1.0	U	U	Yes	
Isophorone	200	ug/Kg	1.0	U	U	Yes	
2-Nitrophenol	200	ug/Kg	1.0	U	U	Yes	
2,4-Dimethylphenol	200	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethoxy)methane	200	ug/Kg	1.0	U	U	Yes	
2,4-Dichlorophenol	200	ug/Kg	1.0	U	U	Yes	
Naphthalene	200	ug/Kg	1.0	U	U	Yes	
4-Chloroaniline	200	ug/Kg	1.0	U	U	Yes	
Hexachlorobutadiene	200	ug/Kg	1.0	U	U	Yes	
Caprolactam	200	ug/Kg	1.0	U	U	Yes	
4-Chloro-3-methylphenol	200	ug/Kg	1.0	U	U	Yes	
2-Methylnaphthalene	200	ug/Kg	1.0	U	U	Yes	
Hexachlorocyclopentadiene	200	ug/Kg	1.0	U	U	Yes	
2,4,6-Trichlorophenol	200	ug/Kg	1.0	U	U	Yes	
2,4,5-Trichlorophenol	200	ug/Kg	1.0	U	U	Yes	
1,1'-Biphenyl	200	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
2-Chloronaphthalene	200	ug/Kg	1.0	U	U	Yes	
2-Nitroaniline	380	ug/Kg	1.0	U	U	Yes	
Dimethylphthalate	200	ug/Kg	1.0	U	U	Yes	
2,6-Dinitrotoluene	200	ug/Kg	1.0	U	U	Yes	
Acenaphthylene	200	ug/Kg	1.0	U	U	Yes	
3-Nitroaniline	380	ug/Kg	1.0	U	U	Yes	
Acenaphthene	200	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrophenol	380	ug/Kg	1.0	U	U	Yes	
4-Nitrophenol	380	ug/Kg	1.0	U	U	Yes	
Dibenzofuran	200	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrotoluene	200	ug/Kg	1.0	U	U	Yes	
Diethylphthalate	200	ug/Kg	1.0	U	U	Yes	
Fluorene	200	ug/Kg	1.0	U	U	Yes	
4-Chlorophenyl-phenylether	200	ug/Kg	1.0	U	U	Yes	
4-Nitroaniline	380	ug/Kg	1.0	U	U	Yes	
4,6-Dinitro-2-methylphenol	380	ug/Kg	1.0	U	U	Yes	
N-Nitrosodiphenylamine	200	ug/Kg	1.0	U	U	Yes	
1,2,4,5-Tetrachlorobenzene	200	ug/Kg	1.0	U	U	Yes	
4-Bromophenyl-phenylether	200	ug/Kg	1.0	U	U	Yes	
Hexachlorobenzene	200	ug/Kg	1.0	U	U	Yes	
Atrazine	200	ug/Kg	1.0	U	U	Yes	
Pentachlorophenol	380	ug/Kg	1.0	U	U	Yes	
Phenanthrene	200	ug/Kg	1.0	U	U	Yes	
Anthracene	200	ug/Kg	1.0	U	U	Yes	
Carbazole	200	ug/Kg	1.0	U	U	Yes	
Di-n-butylphthalate	200	ug/Kg	1.0	U	U	Yes	
Fluoranthene	200	ug/Kg	1.0	U	U	Yes	
Pyrene	200	ug/Kg	1.0	U	U	Yes	
Butylbenzylphthalate	200	ug/Kg	1.0	U	U	Yes	
3,3'-Dichlorobenzidine	200	ug/Kg	1.0	U	U	Yes	
Benzo(a)anthracene	200	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Chrysene	200	ug/Kg	1.0	U	U	Yes	
Bis(2-ethylhexyl)phthalate	200	ug/Kg	1.0	U	U	Yes	
Di-n-octylphthalate	200	ug/Kg	1.0	U	U	Yes	
Benzo(b)fluoranthene	200	ug/Kg	1.0	U	U	Yes	
Benzo(k)fluoranthene	200	ug/Kg	1.0	U	U	Yes	
Benzo(a)pyrene	200	ug/Kg	1.0	U	U	Yes	
Indeno(1,2,3-cd)pyrene	200	ug/Kg	1.0	U	U	Yes	
Dibenzo(a,h)anthracene	200	ug/Kg	1.0	U	U	Yes	
Benzo(g,h,i)perylene	200	ug/Kg	1.0	U	U	Yes	
2,3,4,6-Tetrachlorophenol	200	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA5	Lab Code: MITKEM
Sample Number: E0AA5	Method: VOA_Low_Med	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SO08-(12-24)-072313	pH: 7.0	Sample Date: 07/23/2013	Sample Time: 16:15:00
% Moisture : 14.60177		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	6.8	ug/Kg	1.0	U	U	Yes	
Chloromethane	6.8	ug/Kg	1.0	U	U	Yes	
Vinyl chloride	6.8	ug/Kg	1.0	U	U	Yes	
Bromomethane	6.8	ug/Kg	1.0	U	U	Yes	
Chloroethane	6.8	ug/Kg	1.0	U	U	Yes	
Trichlorofluorom ethane	6.8	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethene	6.8	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloro-1,2,2-trifluoroethane	6.8	ug/Kg	1.0	U	U	Yes	
Acetone	14	ug/Kg	1.0	U	U	Yes	
Carbon disulfide	6.8	ug/Kg	1.0	U	U	Yes	
Methyl acetate	6.8	ug/Kg	1.0	U	U	Yes	
Methylene chloride	6.8	ug/Kg	1.0	U	U	Yes	
trans-1,2-Dichloroethene	6.8	ug/Kg	1.0	U	U	Yes	
Methyl tert-butyl ether	6.8	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethane	6.8	ug/Kg	1.0	U	U	Yes	
cis-1,2-Dichloroethene	6.8	ug/Kg	1.0	U	U	Yes	
2-Butanone	14	ug/Kg	1.0	U	U	Yes	
Bromochloromet hane	6.8	ug/Kg	1.0	U	U	Yes	
Chloroform	6.8	ug/Kg	1.0	U	U	Yes	
1,1,1-Trichloroethane	6.8	ug/Kg	1.0	U	U	Yes	
Cyclohexane	6.8	ug/Kg	1.0	U	U	Yes	
Carbon tetrachloride	6.8	ug/Kg	1.0	U	U	Yes	
Benzene	6.8	ug/Kg	1.0	U	U	Yes	
1,2-Dichloroethane	6.8	ug/Kg	1.0	U	U	Yes	
1,4-Dioxane	140	ug/Kg	1.0	U	U	Yes	
Trichloroethene	6.8	ug/Kg	1.0	U	U	Yes	
Methylcyclohexa ne	6.8	ug/Kg	1.0	U	U	Yes	
1,2-Dichloropropane	6.8	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Bromodichloromethane	6.8	ug/Kg	1.0	U	U	Yes	
cis-1,3-Dichloropropene	6.8	ug/Kg	1.0	U	U	Yes	
4-Methyl-2-pentanone	14	ug/Kg	1.0	U	U	Yes	
Toluene	6.8	ug/Kg	1.0	U	U	Yes	
trans-1,3-Dichloropropene	6.8	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloroethane	6.8	ug/Kg	1.0	U	U	Yes	
Tetrachloroethene	6.8	ug/Kg	1.0	U	U	Yes	
2-Hexanone	14	ug/Kg	1.0	U	U	Yes	
Dibromochloromethane	6.8	ug/Kg	1.0	U	U	Yes	
1,2-Dibromoethane	6.8	ug/Kg	1.0	U	U	Yes	
Chlorobenzene	6.8	ug/Kg	1.0	U	U	Yes	
Ethylbenzene	6.8	ug/Kg	1.0	U	U	Yes	
o-Xylene	6.8	ug/Kg	1.0	U	U	Yes	
m,p-Xylene	6.8	ug/Kg	1.0	U	U	Yes	
Styrene	6.8	ug/Kg	1.0	U	U	Yes	
Bromoform	6.8	ug/Kg	1.0	U	U	Yes	
Isopropylbenzene	6.8	ug/Kg	1.0	U	U	Yes	
1,1,2,2-Tetrachloroethane	6.8	ug/Kg	1.0	U	U	Yes	
1,3-Dichlorobenzene	6.8	ug/Kg	1.0	U	U	Yes	
1,4-Dichlorobenzene	6.8	ug/Kg	1.0	U	U	Yes	
1,2-Dichlorobenzene	6.8	ug/Kg	1.0	U	U	Yes	
1,2-Dibromo-3-chloropropane	6.8	ug/Kg	1.0	U	U	Yes	
1,2,4-Trichlorobenzene	6.8	ug/Kg	1.0	U	U	Yes	
1,2,3-Trichlorobenzene	6.8	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA5	Lab Code: MITKEM
Sample Number: E0AA6	Method: BNA	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SO12-(0-12)-072313	pH: 6.7	Sample Date: 07/23/2013	Sample Time: 17:05:00
% Moisture : 6.65434		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Benzaldehyde	180	ug/Kg	1.0	U	U	Yes	
Phenol	180	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethyl)ether	180	ug/Kg	1.0	U	U	Yes	
2-Chlorophenol	180	ug/Kg	1.0	U	U	Yes	
2-Methylphenol	180	ug/Kg	1.0	U	U	Yes	
2,2'-Oxybis(1-chloropropane)	180	ug/Kg	1.0	U	U	Yes	
Acetophenone	180	ug/Kg	1.0	U	U	Yes	
4-Methylphenol	180	ug/Kg	1.0	U	U	Yes	
N-Nitroso-di-n-propylamine	180	ug/Kg	1.0	U	U	Yes	
Hexachloroethane	180	ug/Kg	1.0	U	U	Yes	
Nitrobenzene	180	ug/Kg	1.0	U	U	Yes	
Isophorone	180	ug/Kg	1.0	U	U	Yes	
2-Nitrophenol	180	ug/Kg	1.0	U	U	Yes	
2,4-Dimethylphenol	180	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethoxy)methane	180	ug/Kg	1.0	U	U	Yes	
2,4-Dichlorophenol	180	ug/Kg	1.0	U	U	Yes	
Naphthalene	180	ug/Kg	1.0	U	U	Yes	
4-Chloroaniline	180	ug/Kg	1.0	U	U	Yes	
Hexachlorobutadiene	180	ug/Kg	1.0	U	U	Yes	
Caprolactam	180	ug/Kg	1.0	U	U	Yes	
4-Chloro-3-methylphenol	180	ug/Kg	1.0	U	U	Yes	
2-Methylnaphthalene	180	ug/Kg	1.0	U	U	Yes	
Hexachlorocyclopentadiene	180	ug/Kg	1.0	U	U	Yes	
2,4,6-Trichlorophenol	180	ug/Kg	1.0	U	U	Yes	
2,4,5-Trichlorophenol	180	ug/Kg	1.0	U	U	Yes	
1,1'-Biphenyl	180	ug/Kg	1.0	U	U	Yes	
2-Chloronaphthalene	180	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
2-Nitroaniline	340	ug/Kg	1.0	U	U	Yes	
Dimethylphthalate	180	ug/Kg	1.0	U	U	Yes	
2,6-Dinitrotoluene	180	ug/Kg	1.0	U	U	Yes	
Acenaphthylene	180	ug/Kg	1.0	U	U	Yes	
3-Nitroaniline	340	ug/Kg	1.0	U	U	Yes	
Acenaphthene	180	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrophenol	340	ug/Kg	1.0	U	U	Yes	
4-Nitrophenol	340	ug/Kg	1.0	U	U	Yes	
Dibenzofuran	180	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrotoluene	180	ug/Kg	1.0	U	U	Yes	
Diethylphthalate	180	ug/Kg	1.0	U	U	Yes	
Fluorene	180	ug/Kg	1.0	U	U	Yes	
4-Chlorophenyl-phenylether	180	ug/Kg	1.0	U	U	Yes	
4-Nitroaniline	340	ug/Kg	1.0	U	U	Yes	
4,6-Dinitro-2-methylphenol	340	ug/Kg	1.0	U	U	Yes	
N-Nitrosodiphenylamine	180	ug/Kg	1.0	U	U	Yes	
1,2,4,5-Tetrachlorobenzene	180	ug/Kg	1.0	U	U	Yes	
4-Bromophenyl-phenylether	180	ug/Kg	1.0	U	U	Yes	
Hexachlorobenzene	180	ug/Kg	1.0	U	U	Yes	
Atrazine	180	ug/Kg	1.0	U	U	Yes	
Pentachlorophenol	340	ug/Kg	1.0	U	U	Yes	
Phenanthrene	180	ug/Kg	1.0	U	U	Yes	
Anthracene	180	ug/Kg	1.0	U	U	Yes	
Carbazole	180	ug/Kg	1.0	U	U	Yes	
Di-n-butylphthalate	180	ug/Kg	1.0	U	U	Yes	
Fluoranthene	180	ug/Kg	1.0	U	UJ	Yes	
Pyrene	180	ug/Kg	1.0	U	UJ	Yes	
Butylbenzylphthalate	180	ug/Kg	1.0	U	U	Yes	
3,3'-Dichlorobenzidine	180	ug/Kg	1.0	U	U	Yes	
Benzo(a)anthracene	180	ug/Kg	1.0	U	UJ	Yes	
Chrysene	180	ug/Kg	1.0	U	UJ	Yes	
Bis(2-ethylhexyl)	180	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
phthalate	180	ug/Kg	1.0	U	U	Yes	
Di-n-octylphthalate	180	ug/Kg	1.0	U	U	Yes	
Benzo(b)fluoranthene	180	ug/Kg	1.0	U	U	Yes	
Benzo(k)fluoranthene	180	ug/Kg	1.0	U	U	Yes	
Benzo(a)pyrene	180	ug/Kg	1.0	U	U	Yes	
Indeno(1,2,3-cd)pyrene	180	ug/Kg	1.0	U	U	Yes	
Dibenzo(a,h)anthracene	180	ug/Kg	1.0	U	U	Yes	
Benzo(g,h,i)perylene	180	ug/Kg	1.0	U	U	Yes	
2,3,4,6-Tetrachlorophenol	180	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA5	Lab Code: MITKEM

Sample Number:	E0AA6	Method:	VOA_Low_Med	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SO12-(0-12)-072313	pH:	7.0	Sample Date:	07/23/2013	Sample Time:	17:05:00
% Moisture :	6.65434			% Solids :			

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	6.4	ug/Kg	1.0	U	U	Yes	
Chloromethane	6.4	ug/Kg	1.0	U	U	Yes	
Vinyl chloride	6.4	ug/Kg	1.0	U	U	Yes	
Bromomethane	6.4	ug/Kg	1.0	U	U	Yes	
Chloroethane	6.4	ug/Kg	1.0	U	U	Yes	
Trichlorofluorom ethane	6.4	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethene	6.4	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloro-1,2,2-trifluoroethane	6.4	ug/Kg	1.0	U	U	Yes	
Acetone	13	ug/Kg	1.0	U	U	Yes	
Carbon disulfide	6.4	ug/Kg	1.0	U	U	Yes	
Methyl acetate	6.4	ug/Kg	1.0	U	U	Yes	
Methylene chloride	6.4	ug/Kg	1.0	U	U	Yes	
trans-1,2-Dichloroethene	6.4	ug/Kg	1.0	U	U	Yes	
Methyl tert-butyl ether	6.4	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethane	6.4	ug/Kg	1.0	U	U	Yes	
cis-1,2-Dichloroethene	6.4	ug/Kg	1.0	U	U	Yes	
2-Butanone	13	ug/Kg	1.0	U	U	Yes	
Bromochloromet hane	6.4	ug/Kg	1.0	U	U	Yes	
Chloroform	6.4	ug/Kg	1.0	U	U	Yes	
1,1,1-Trichloroethane	6.4	ug/Kg	1.0	U	U	Yes	
Cyclohexane	6.4	ug/Kg	1.0	U	U	Yes	
Carbon tetrachloride	6.4	ug/Kg	1.0	U	U	Yes	
Benzene	6.4	ug/Kg	1.0	U	U	Yes	
1,2-Dichloroethane	6.4	ug/Kg	1.0	U	U	Yes	
1,4-Dioxane	130	ug/Kg	1.0	U	U	Yes	
Trichloroethene	6.4	ug/Kg	1.0	U	U	Yes	
Methylcyclohexa ne	6.4	ug/Kg	1.0	U	U	Yes	
1,2-Dichloropropane	6.4	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Bromodichloromethane	6.4	ug/Kg	1.0	U	U	Yes	
cis-1,3-Dichloropropene	6.4	ug/Kg	1.0	U	U	Yes	
4-Methyl-2-pentanone	13	ug/Kg	1.0	U	U	Yes	
Toluene	6.4	ug/Kg	1.0	U	U	Yes	
trans-1,3-Dichloropropene	6.4	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloroethane	6.4	ug/Kg	1.0	U	U	Yes	
Tetrachloroethene	6.4	ug/Kg	1.0	U	U	Yes	
2-Hexanone	13	ug/Kg	1.0	U	U	Yes	
Dibromochloromethane	6.4	ug/Kg	1.0	U	U	Yes	
1,2-Dibromoethane	6.4	ug/Kg	1.0	U	U	Yes	
Chlorobenzene	6.4	ug/Kg	1.0	U	U	Yes	
Ethylbenzene	6.4	ug/Kg	1.0	U	U	Yes	
o-Xylene	6.4	ug/Kg	1.0	U	U	Yes	
m,p-Xylene	6.4	ug/Kg	1.0	U	U	Yes	
Styrene	6.4	ug/Kg	1.0	U	U	Yes	
Bromoform	6.4	ug/Kg	1.0	U	U	Yes	
Isopropylbenzene	6.4	ug/Kg	1.0	U	U	Yes	
1,1,2,2-Tetrachloroethane	6.4	ug/Kg	1.0	U	U	Yes	
1,3-Dichlorobenzene	6.4	ug/Kg	1.0	U	U	Yes	
1,4-Dichlorobenzene	6.4	ug/Kg	1.0	U	U	Yes	
1,2-Dichlorobenzene	6.4	ug/Kg	1.0	U	U	Yes	
1,2-Dibromo-3-chloropropane	6.4	ug/Kg	1.0	U	U	Yes	
1,2,4-Trichlorobenzene	6.4	ug/Kg	1.0	U	U	Yes	
1,2,3-Trichlorobenzene	6.4	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA5	Lab Code: MITKEM

Sample Number:	E0AA8	Method:	VOA_Low_Med	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SO01-(0-12)-072413	pH:	7.0	Sample Date:	07/24/2013	Sample Time:	08:20:00
% Moisture :	6.14035			% Solids :			

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	5.8	ug/Kg	1.0	U	U	Yes	
Chloromethane	5.8	ug/Kg	1.0	U	U	Yes	
Vinyl chloride	5.8	ug/Kg	1.0	U	U	Yes	
Bromomethane	5.8	ug/Kg	1.0	U	U	Yes	
Chloroethane	5.8	ug/Kg	1.0	U	U	Yes	
Trichlorofluorom ethane	5.8	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethene	5.8	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.8	ug/Kg	1.0	U	U	Yes	
Acetone	12	ug/Kg	1.0	U	U	Yes	
Carbon disulfide	5.8	ug/Kg	1.0	U	U	Yes	
Methyl acetate	5.8	ug/Kg	1.0	U	U	Yes	
Methylene chloride	5.8	ug/Kg	1.0	U	U	Yes	
trans-1,2-Dichloroethene	5.8	ug/Kg	1.0	U	U	Yes	
Methyl tert-butyl ether	5.8	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethane	5.8	ug/Kg	1.0	U	U	Yes	
cis-1,2-Dichloroethene	5.8	ug/Kg	1.0	U	U	Yes	
2-Butanone	12	ug/Kg	1.0	U	U	Yes	
Bromochloromet hane	5.8	ug/Kg	1.0	U	U	Yes	
Chloroform	5.8	ug/Kg	1.0	U	U	Yes	
1,1,1-Trichloroethane	5.8	ug/Kg	1.0	U	U	Yes	
Cyclohexane	5.8	ug/Kg	1.0	U	U	Yes	
Carbon tetrachloride	5.8	ug/Kg	1.0	U	U	Yes	
Benzene	5.8	ug/Kg	1.0	U	U	Yes	
1,2-Dichloroethane	5.8	ug/Kg	1.0	U	U	Yes	
1,4-Dioxane	120	ug/Kg	1.0	U	U	Yes	
Trichloroethene	5.8	ug/Kg	1.0	U	U	Yes	
Methylcyclohexa ne	5.8	ug/Kg	1.0	U	U	Yes	
1,2-Dichloropropane	5.8	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Bromodichloromethane	5.8	ug/Kg	1.0	U	U	Yes	
cis-1,3-Dichloropropene	5.8	ug/Kg	1.0	U	U	Yes	
4-Methyl-2-pentanone	12	ug/Kg	1.0	U	U	Yes	
Toluene	5.8	ug/Kg	1.0	U	U	Yes	
trans-1,3-Dichloropropene	5.8	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloroethane	5.8	ug/Kg	1.0	U	U	Yes	
Tetrachloroethene	5.8	ug/Kg	1.0	U	U	Yes	
2-Hexanone	12	ug/Kg	1.0	U	U	Yes	
Dibromochloromethane	5.8	ug/Kg	1.0	U	U	Yes	
1,2-Dibromoethane	5.8	ug/Kg	1.0	U	U	Yes	
Chlorobenzene	5.8	ug/Kg	1.0	U	U	Yes	
Ethylbenzene	5.8	ug/Kg	1.0	U	U	Yes	
o-Xylene	5.8	ug/Kg	1.0	U	U	Yes	
m,p-Xylene	5.8	ug/Kg	1.0	U	U	Yes	
Styrene	5.8	ug/Kg	1.0	U	U	Yes	
Bromoform	5.8	ug/Kg	1.0	U	U	Yes	
Isopropylbenzene	5.8	ug/Kg	1.0	U	U	Yes	
1,1,2,2-Tetrachloroethane	5.8	ug/Kg	1.0	U	U	Yes	
1,3-Dichlorobenzene	5.8	ug/Kg	1.0	U	U	Yes	
1,4-Dichlorobenzene	5.8	ug/Kg	1.0	U	U	Yes	
1,2-Dichlorobenzene	5.8	ug/Kg	1.0	U	U	Yes	
1,2-Dibromo-3-chloropropane	5.8	ug/Kg	1.0	U	U	Yes	
1,2,4-Trichlorobenzene	5.8	ug/Kg	1.0	U	U	Yes	
1,2,3-Trichlorobenzene	5.8	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA5	Lab Code: MITKEM
Sample Number: E0AA8	Method: BNA	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SO01-(0-12)-072413	pH: 7.0	Sample Date: 07/24/2013	Sample Time: 08:20:00
% Moisture : 6.14035		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Benzaldehyde	180	ug/Kg	1.0	U	U	Yes	
Phenol	180	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethyl)ether	180	ug/Kg	1.0	U	U	Yes	
2-Chlorophenol	180	ug/Kg	1.0	U	U	Yes	
2-Methylphenol	180	ug/Kg	1.0	U	U	Yes	
2,2'-Oxybis(1-chloropropane)	180	ug/Kg	1.0	U	U	Yes	
Acetophenone	180	ug/Kg	1.0	U	U	Yes	
4-Methylphenol	180	ug/Kg	1.0	U	U	Yes	
N-Nitroso-di-n-propylamine	180	ug/Kg	1.0	U	U	Yes	
Hexachloroethane	180	ug/Kg	1.0	U	U	Yes	
Nitrobenzene	180	ug/Kg	1.0	U	U	Yes	
Isophorone	180	ug/Kg	1.0	U	U	Yes	
2-Nitrophenol	180	ug/Kg	1.0	U	U	Yes	
2,4-Dimethylphenol	180	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethoxy)methane	180	ug/Kg	1.0	U	U	Yes	
2,4-Dichlorophenol	180	ug/Kg	1.0	U	U	Yes	
Naphthalene	180	ug/Kg	1.0	U	U	Yes	
4-Chloroaniline	180	ug/Kg	1.0	U	U	Yes	
Hexachlorobutadiene	180	ug/Kg	1.0	U	U	Yes	
Caprolactam	180	ug/Kg	1.0	U	U	Yes	
4-Chloro-3-methylphenol	180	ug/Kg	1.0	U	U	Yes	
2-Methylnaphthalene	180	ug/Kg	1.0	U	U	Yes	
Hexachlorocyclopentadiene	180	ug/Kg	1.0	U	U	Yes	
2,4,6-Trichlorophenol	180	ug/Kg	1.0	U	U	Yes	
2,4,5-Trichlorophenol	180	ug/Kg	1.0	U	U	Yes	
1,1'-Biphenyl	180	ug/Kg	1.0	U	U	Yes	
2-Chloronaphthalene	180	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
2-Nitroaniline	350	ug/Kg	1.0	U	U	Yes	
Dimethylphthalate	180	ug/Kg	1.0	U	U	Yes	
2,6-Dinitrotoluene	180	ug/Kg	1.0	U	U	Yes	
Acenaphthylene	180	ug/Kg	1.0	U	U	Yes	
3-Nitroaniline	350	ug/Kg	1.0	U	U	Yes	
Acenaphthene	180	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrophenol	350	ug/Kg	1.0	U	U	Yes	
4-Nitrophenol	350	ug/Kg	1.0	U	U	Yes	
Dibenzofuran	180	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrotoluene	180	ug/Kg	1.0	U	U	Yes	
Diethylphthalate	180	ug/Kg	1.0	U	U	Yes	
Fluorene	180	ug/Kg	1.0	U	U	Yes	
4-Chlorophenyl-phenylether	180	ug/Kg	1.0	U	U	Yes	
4-Nitroaniline	350	ug/Kg	1.0	U	U	Yes	
4,6-Dinitro-2-methylphenol	350	ug/Kg	1.0	U	U	Yes	
N-Nitrosodiphenylamine	180	ug/Kg	1.0	U	U	Yes	
1,2,4,5-Tetrachlorobenzene	180	ug/Kg	1.0	U	U	Yes	
4-Bromophenyl-phenylether	180	ug/Kg	1.0	U	U	Yes	
Hexachlorobenzene	180	ug/Kg	1.0	U	U	Yes	
Atrazine	180	ug/Kg	1.0	U	U	Yes	
Pentachlorophenol	350	ug/Kg	1.0	U	U	Yes	
Phenanthrene	180	ug/Kg	1.0	U	U	Yes	
Anthracene	180	ug/Kg	1.0	U	U	Yes	
Carbazole	180	ug/Kg	1.0	U	U	Yes	
Di-n-butylphthalate	180	ug/Kg	1.0	U	U	Yes	
Fluoranthene	180	ug/Kg	1.0	U	UJ	Yes	
Pyrene	180	ug/Kg	1.0	U	UJ	Yes	
Butylbenzylphthalate	180	ug/Kg	1.0	U	U	Yes	
3,3'-Dichlorobenzidine	180	ug/Kg	1.0	U	U	Yes	
Benzo(a)anthracene	180	ug/Kg	1.0	U	UJ	Yes	
Chrysene	180	ug/Kg	1.0	U	UJ	Yes	
Bis(2-ethylhexyl)	180	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
phthalate	180	ug/Kg	1.0	U	U	Yes	
Di-n-octylphthalate	180	ug/Kg	1.0	U	U	Yes	
Benzo(b)fluoranthene	180	ug/Kg	1.0	U	U	Yes	
Benzo(k)fluoranthene	180	ug/Kg	1.0	U	U	Yes	
Benzo(a)pyrene	180	ug/Kg	1.0	U	U	Yes	
Indeno(1,2,3-cd)pyrene	180	ug/Kg	1.0	U	U	Yes	
Dibenzo(a,h)anthracene	180	ug/Kg	1.0	U	U	Yes	
Benzo(g,h,i)perylene	180	ug/Kg	1.0	U	U	Yes	
2,3,4,6-Tetrachlorophenol	180	ug/Kg	1.0	U	U	Yes	
Hexadecanoic acid, butyl ester	170	ug/Kg	1.0	NJ	NJ	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA5	Lab Code: MITKEM

Sample Number:	E0AA9	Method:	VOA_Low_Med	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SO02-(0-12)-072413	pH:	7.0	Sample Date:	07/24/2013	Sample Time:	09:10:00
% Moisture :	9.10596			% Solids :			

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	6.3	ug/Kg	1.0	U	U	Yes	
Chloromethane	6.3	ug/Kg	1.0	U	U	Yes	
Vinyl chloride	6.3	ug/Kg	1.0	U	U	Yes	
Bromomethane	6.3	ug/Kg	1.0	U	U	Yes	
Chloroethane	6.3	ug/Kg	1.0	U	U	Yes	
Trichlorofluorom ethane	6.3	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethene	6.3	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloro-1,2,2-trifluoroethane	6.3	ug/Kg	1.0	U	U	Yes	
Acetone	13	ug/Kg	1.0	U	U	Yes	
Carbon disulfide	6.3	ug/Kg	1.0	U	U	Yes	
Methyl acetate	6.3	ug/Kg	1.0	U	U	Yes	
Methylene chloride	6.3	ug/Kg	1.0	U	U	Yes	
trans-1,2-Dichloroethene	6.3	ug/Kg	1.0	U	U	Yes	
Methyl tert-butyl ether	6.3	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethane	6.3	ug/Kg	1.0	U	U	Yes	
cis-1,2-Dichloroethene	6.3	ug/Kg	1.0	U	U	Yes	
2-Butanone	13	ug/Kg	1.0	U	U	Yes	
Bromochloromet hane	6.3	ug/Kg	1.0	U	U	Yes	
Chloroform	6.3	ug/Kg	1.0	U	U	Yes	
1,1,1-Trichloroethane	6.3	ug/Kg	1.0	U	U	Yes	
Cyclohexane	6.3	ug/Kg	1.0	U	U	Yes	
Carbon tetrachloride	6.3	ug/Kg	1.0	U	U	Yes	
Benzene	6.3	ug/Kg	1.0	U	U	Yes	
1,2-Dichloroethane	6.3	ug/Kg	1.0	U	U	Yes	
1,4-Dioxane	130	ug/Kg	1.0	U	U	Yes	
Trichloroethene	6.3	ug/Kg	1.0	U	U	Yes	
Methylcyclohexa ne	6.3	ug/Kg	1.0	U	U	Yes	
1,2-Dichloropropane	6.3	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Bromodichloromethane	6.3	ug/Kg	1.0	U	U	Yes	
cis-1,3-Dichloropropene	6.3	ug/Kg	1.0	U	U	Yes	
4-Methyl-2-pentanone	13	ug/Kg	1.0	U	U	Yes	
Toluene	6.3	ug/Kg	1.0	U	U	Yes	
trans-1,3-Dichloropropene	6.3	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloroethane	6.3	ug/Kg	1.0	U	U	Yes	
Tetrachloroethene	6.3	ug/Kg	1.0	U	U	Yes	
2-Hexanone	13	ug/Kg	1.0	U	U	Yes	
Dibromochloromethane	6.3	ug/Kg	1.0	U	U	Yes	
1,2-Dibromoethane	6.3	ug/Kg	1.0	U	U	Yes	
Chlorobenzene	6.3	ug/Kg	1.0	U	U	Yes	
Ethylbenzene	6.3	ug/Kg	1.0	U	U	Yes	
o-Xylene	6.3	ug/Kg	1.0	U	U	Yes	
m,p-Xylene	6.3	ug/Kg	1.0	U	U	Yes	
Styrene	6.3	ug/Kg	1.0	U	U	Yes	
Bromoform	6.3	ug/Kg	1.0	U	U	Yes	
Isopropylbenzene	6.3	ug/Kg	1.0	U	U	Yes	
1,1,2,2-Tetrachloroethane	6.3	ug/Kg	1.0	U	U	Yes	
1,3-Dichlorobenzene	6.3	ug/Kg	1.0	U	U	Yes	
1,4-Dichlorobenzene	6.3	ug/Kg	1.0	U	U	Yes	
1,2-Dichlorobenzene	6.3	ug/Kg	1.0	U	U	Yes	
1,2-Dibromo-3-chloropropane	6.3	ug/Kg	1.0	U	U	Yes	
1,2,4-Trichlorobenzene	6.3	ug/Kg	1.0	U	U	Yes	
1,2,3-Trichlorobenzene	6.3	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA5	Lab Code: MITKEM
Sample Number: E0AA9	Method: BNA	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SO02-(0-12)-072413	pH: 6.7	Sample Date: 07/24/2013	Sample Time: 09:10:00
% Moisture : 9.10596		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Benzaldehyde	180	ug/Kg	1.0	U	U	Yes	
Phenol	180	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethyl)ether	180	ug/Kg	1.0	U	U	Yes	
2-Chlorophenol	180	ug/Kg	1.0	U	U	Yes	
2-Methylphenol	180	ug/Kg	1.0	U	U	Yes	
2,2'-Oxybis(1-chloropropane)	180	ug/Kg	1.0	U	U	Yes	
Acetophenone	180	ug/Kg	1.0	U	U	Yes	
4-Methylphenol	180	ug/Kg	1.0	U	U	Yes	
N-Nitroso-di-n-propylamine	180	ug/Kg	1.0	U	U	Yes	
Hexachloroethane	180	ug/Kg	1.0	U	U	Yes	
Nitrobenzene	180	ug/Kg	1.0	U	U	Yes	
Isophorone	180	ug/Kg	1.0	U	U	Yes	
2-Nitrophenol	180	ug/Kg	1.0	U	U	Yes	
2,4-Dimethylphenol	180	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethoxy)methane	180	ug/Kg	1.0	U	U	Yes	
2,4-Dichlorophenol	180	ug/Kg	1.0	U	U	Yes	
Naphthalene	180	ug/Kg	1.0	U	U	Yes	
4-Chloroaniline	180	ug/Kg	1.0	U	U	Yes	
Hexachlorobutadiene	180	ug/Kg	1.0	U	U	Yes	
Caprolactam	180	ug/Kg	1.0	U	U	Yes	
4-Chloro-3-methylphenol	180	ug/Kg	1.0	U	U	Yes	
2-Methylnaphthalene	180	ug/Kg	1.0	U	U	Yes	
Hexachlorocyclopentadiene	180	ug/Kg	1.0	U	U	Yes	
2,4,6-Trichlorophenol	180	ug/Kg	1.0	U	U	Yes	
2,4,5-Trichlorophenol	180	ug/Kg	1.0	U	U	Yes	
1,1'-Biphenyl	180	ug/Kg	1.0	U	U	Yes	
2-Chloronaphthalene	180	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
2-Nitroaniline	360	ug/Kg	1.0	U	U	Yes	
Dimethylphthalate	180	ug/Kg	1.0	U	U	Yes	
2,6-Dinitrotoluene	180	ug/Kg	1.0	U	U	Yes	
Acenaphthylene	180	ug/Kg	1.0	U	U	Yes	
3-Nitroaniline	360	ug/Kg	1.0	U	U	Yes	
Acenaphthene	180	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrophenol	360	ug/Kg	1.0	U	U	Yes	
4-Nitrophenol	360	ug/Kg	1.0	U	U	Yes	
Dibenzofuran	180	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrotoluene	180	ug/Kg	1.0	U	U	Yes	
Diethylphthalate	180	ug/Kg	1.0	U	U	Yes	
Fluorene	180	ug/Kg	1.0	U	U	Yes	
4-Chlorophenyl-phenylether	180	ug/Kg	1.0	U	U	Yes	
4-Nitroaniline	360	ug/Kg	1.0	U	U	Yes	
4,6-Dinitro-2-methylphenol	360	ug/Kg	1.0	U	U	Yes	
N-Nitrosodiphenylamine	180	ug/Kg	1.0	U	U	Yes	
1,2,4,5-Tetrachlorobenzene	180	ug/Kg	1.0	U	U	Yes	
4-Bromophenyl-phenylether	180	ug/Kg	1.0	U	U	Yes	
Hexachlorobenzene	180	ug/Kg	1.0	U	U	Yes	
Atrazine	180	ug/Kg	1.0	U	U	Yes	
Pentachlorophenol	360	ug/Kg	1.0	U	U	Yes	
Phenanthrene	180	ug/Kg	1.0	U	U	Yes	
Anthracene	180	ug/Kg	1.0	U	U	Yes	
Carbazole	180	ug/Kg	1.0	U	U	Yes	
Di-n-butylphthalate	180	ug/Kg	1.0	U	U	Yes	
Fluoranthene	180	ug/Kg	1.0	U	U	Yes	
Pyrene	180	ug/Kg	1.0	U	U	Yes	
Butylbenzylphthalate	180	ug/Kg	1.0	U	U	Yes	
3,3'-Dichlorobenzidine	180	ug/Kg	1.0	U	U	Yes	
Benzo(a)anthracene	180	ug/Kg	1.0	U	U	Yes	
Chrysene	180	ug/Kg	1.0	U	U	Yes	
Bis(2-ethylhexyl)	180	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
phthalate	180	ug/Kg	1.0	U	U	Yes	
Di-n-octylphthalate	180	ug/Kg	1.0	U	U	Yes	
Benzo(b)fluoranthene	180	ug/Kg	1.0	U	U	Yes	
Benzo(k)fluoranthene	180	ug/Kg	1.0	U	U	Yes	
Benzo(a)pyrene	180	ug/Kg	1.0	U	U	Yes	
Indeno(1,2,3-cd)pyrene	180	ug/Kg	1.0	U	U	Yes	
Dibenzo(a,h)anthracene	180	ug/Kg	1.0	U	U	Yes	
Benzo(g,h,i)perylene	180	ug/Kg	1.0	U	U	Yes	
2,3,4,6-Tetrachlorophenol	180	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA5	Lab Code: MITKEM
Sample Number: E0AB0	Method: BNA	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-S013-(0-12)-072413	pH: 6.9	Sample Date: 07/24/2013	Sample Time: 10:00:00
% Moisture : 7.31707		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Benzaldehyde	180	ug/Kg	1.0	U	U	Yes	
Phenol	180	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethyl)ether	180	ug/Kg	1.0	U	U	Yes	
2-Chlorophenol	180	ug/Kg	1.0	U	U	Yes	
2-Methylphenol	180	ug/Kg	1.0	U	U	Yes	
2,2'-Oxybis(1-chloropropane)	180	ug/Kg	1.0	U	U	Yes	
Acetophenone	180	ug/Kg	1.0	U	U	Yes	
4-Methylphenol	180	ug/Kg	1.0	U	U	Yes	
N-Nitroso-di-n-propylamine	180	ug/Kg	1.0	U	U	Yes	
Hexachloroethane	180	ug/Kg	1.0	U	U	Yes	
Nitrobenzene	180	ug/Kg	1.0	U	U	Yes	
Isophorone	180	ug/Kg	1.0	U	U	Yes	
2-Nitrophenol	180	ug/Kg	1.0	U	U	Yes	
2,4-Dimethylphenol	180	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethoxy)methane	180	ug/Kg	1.0	U	U	Yes	
2,4-Dichlorophenol	180	ug/Kg	1.0	U	U	Yes	
Naphthalene	180	ug/Kg	1.0	U	U	Yes	
4-Chloroaniline	180	ug/Kg	1.0	U	U	Yes	
Hexachlorobutadiene	180	ug/Kg	1.0	U	U	Yes	
Caprolactam	180	ug/Kg	1.0	U	U	Yes	
4-Chloro-3-methylphenol	180	ug/Kg	1.0	U	U	Yes	
2-Methylnaphthalene	180	ug/Kg	1.0	U	U	Yes	
Hexachlorocyclopentadiene	180	ug/Kg	1.0	U	U	Yes	
2,4,6-Trichlorophenol	180	ug/Kg	1.0	U	U	Yes	
2,4,5-Trichlorophenol	180	ug/Kg	1.0	U	U	Yes	
1,1'-Biphenyl	180	ug/Kg	1.0	U	U	Yes	
2-Chloronaphthalene	180	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
2-Nitroaniline	350	ug/Kg	1.0	U	U	Yes	
Dimethylphthalate	180	ug/Kg	1.0	U	U	Yes	
2,6-Dinitrotoluene	180	ug/Kg	1.0	U	U	Yes	
Acenaphthylene	180	ug/Kg	1.0	U	U	Yes	
3-Nitroaniline	350	ug/Kg	1.0	U	U	Yes	
Acenaphthene	180	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrophenol	350	ug/Kg	1.0	U	U	Yes	
4-Nitrophenol	350	ug/Kg	1.0	U	U	Yes	
Dibenzofuran	180	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrotoluene	180	ug/Kg	1.0	U	U	Yes	
Diethylphthalate	180	ug/Kg	1.0	U	U	Yes	
Fluorene	180	ug/Kg	1.0	U	U	Yes	
4-Chlorophenyl-phenylether	180	ug/Kg	1.0	U	U	Yes	
4-Nitroaniline	350	ug/Kg	1.0	U	U	Yes	
4,6-Dinitro-2-methylphenol	350	ug/Kg	1.0	U	U	Yes	
N-Nitrosodiphenylamine	180	ug/Kg	1.0	U	U	Yes	
1,2,4,5-Tetrachlorobenzene	180	ug/Kg	1.0	U	U	Yes	
4-Bromophenyl-phenylether	180	ug/Kg	1.0	U	U	Yes	
Hexachlorobenzene	180	ug/Kg	1.0	U	U	Yes	
Atrazine	180	ug/Kg	1.0	U	U	Yes	
Pentachlorophenol	350	ug/Kg	1.0	U	U	Yes	
Phenanthrene	180	ug/Kg	1.0	U	U	Yes	
Anthracene	180	ug/Kg	1.0	U	U	Yes	
Carbazole	180	ug/Kg	1.0	U	U	Yes	
Di-n-butylphthalate	180	ug/Kg	1.0	U	U	Yes	
Fluoranthene	180	ug/Kg	1.0	U	U	Yes	
Pyrene	180	ug/Kg	1.0	U	U	Yes	
Butylbenzylphthalate	41	ug/Kg	1.0	J	J	Yes	
3,3'-Dichlorobenzidine	180	ug/Kg	1.0	U	U	Yes	
Benzo(a)anthracene	180	ug/Kg	1.0	U	U	Yes	
Chrysene	180	ug/Kg	1.0	U	U	Yes	
Bis(2-ethylhexyl)	38	ug/Kg	1.0	J	J	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
phthalate	38	ug/Kg	1.0	J	J	Yes	
Di-n-octylphthalate	180	ug/Kg	1.0	U	U	Yes	
Benzo(b)fluoranthene	180	ug/Kg	1.0	U	U	Yes	
Benzo(k)fluoranthene	180	ug/Kg	1.0	U	U	Yes	
Benzo(a)pyrene	180	ug/Kg	1.0	U	U	Yes	
Indeno(1,2,3-cd)pyrene	180	ug/Kg	1.0	U	U	Yes	
Dibenzo(a,h)anthracene	180	ug/Kg	1.0	U	U	Yes	
Benzo(g,h,i)perylene	180	ug/Kg	1.0	U	U	Yes	
2,3,4,6-Tetrachlorophenol	180	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA5	Lab Code: MITKEM
Sample Number: E0AB0	Method: VOA_Low_Med	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-S013-(0-12)-072413	pH: 7.0	Sample Date: 07/24/2013	Sample Time: 10:00:00
% Moisture : 7.31707		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	7.1	ug/Kg	1.0	U	U	Yes	
Chloromethane	7.1	ug/Kg	1.0	U	U	Yes	
Vinyl chloride	7.1	ug/Kg	1.0	U	U	Yes	
Bromomethane	7.1	ug/Kg	1.0	U	U	Yes	
Chloroethane	7.1	ug/Kg	1.0	U	U	Yes	
Trichlorofluorom ethane	7.1	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethene	7.1	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloro-1,2,2-trifluoroethane	7.1	ug/Kg	1.0	U	U	Yes	
Acetone	14	ug/Kg	1.0	U	U	Yes	
Carbon disulfide	7.1	ug/Kg	1.0	U	U	Yes	
Methyl acetate	7.1	ug/Kg	1.0	U	U	Yes	
Methylene chloride	7.1	ug/Kg	1.0	U	U	Yes	
trans-1,2-Dichloroethene	7.1	ug/Kg	1.0	U	U	Yes	
Methyl tert-butyl ether	7.1	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethane	7.1	ug/Kg	1.0	U	U	Yes	
cis-1,2-Dichloroethene	7.1	ug/Kg	1.0	U	U	Yes	
2-Butanone	14	ug/Kg	1.0	U	U	Yes	
Bromochloromet hane	7.1	ug/Kg	1.0	U	U	Yes	
Chloroform	7.1	ug/Kg	1.0	U	U	Yes	
1,1,1-Trichloroethane	7.1	ug/Kg	1.0	U	U	Yes	
Cyclohexane	7.1	ug/Kg	1.0	U	U	Yes	
Carbon tetrachloride	7.1	ug/Kg	1.0	U	U	Yes	
Benzene	7.1	ug/Kg	1.0	U	U	Yes	
1,2-Dichloroethane	7.1	ug/Kg	1.0	U	U	Yes	
1,4-Dioxane	140	ug/Kg	1.0	U	U	Yes	
Trichloroethene	7.1	ug/Kg	1.0	U	U	Yes	
Methylcyclohexa ne	7.1	ug/Kg	1.0	U	U	Yes	
1,2-Dichloropropane	7.1	ug/Kg	1.0	U	U	Yes	
Bromodichlorom	7.1	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
ethane	7.1	ug/Kg	1.0	U	U	Yes	
cis-1,3-Dichloropropene	7.1	ug/Kg	1.0	U	U	Yes	
4-Methyl-2-pentanone	14	ug/Kg	1.0	U	U	Yes	
Toluene	7.1	ug/Kg	1.0	U	U	Yes	
trans-1,3-Dichloropropene	7.1	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloroethane	7.1	ug/Kg	1.0	U	U	Yes	
Tetrachloroethene	7.1	ug/Kg	1.0	U	U	Yes	
2-Hexanone	14	ug/Kg	1.0	U	U	Yes	
Dibromochloromethane	7.1	ug/Kg	1.0	U	U	Yes	
1,2-Dibromoethane	7.1	ug/Kg	1.0	U	U	Yes	
Chlorobenzene	7.1	ug/Kg	1.0	U	U	Yes	
Ethylbenzene	7.1	ug/Kg	1.0	U	U	Yes	
o-Xylene	7.1	ug/Kg	1.0	U	U	Yes	
m,p-Xylene	7.1	ug/Kg	1.0	U	U	Yes	
Styrene	7.1	ug/Kg	1.0	U	U	Yes	
Bromoform	7.1	ug/Kg	1.0	U	U	Yes	
Isopropylbenzene	7.1	ug/Kg	1.0	U	U	Yes	
1,1,2,2-Tetrachloroethane	7.1	ug/Kg	1.0	U	U	Yes	
1,3-Dichlorobenzene	7.1	ug/Kg	1.0	U	U	Yes	
1,4-Dichlorobenzene	7.1	ug/Kg	1.0	U	U	Yes	
1,2-Dichlorobenzene	7.1	ug/Kg	1.0	U	U	Yes	
1,2-Dibromo-3-chloropropane	7.1	ug/Kg	1.0	U	U	Yes	
1,2,4-Trichlorobenzene	7.1	ug/Kg	1.0	U	U	Yes	
1,2,3-Trichlorobenzene	7.1	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA5	Lab Code: MITKEM
Sample Number: E0AB1	Method: BNA	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SO13-(0-12)-072413D	pH: 6.7	Sample Date: 07/24/2013	Sample Time: 10:05:00
% Moisture : 6.15641		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Benzaldehyde	180	ug/Kg	1.0	U	U	Yes	
Phenol	180	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethyl)ether	180	ug/Kg	1.0	U	U	Yes	
2-Chlorophenol	180	ug/Kg	1.0	U	U	Yes	
2-Methylphenol	180	ug/Kg	1.0	U	U	Yes	
2,2'-Oxybis(1-chloropropane)	180	ug/Kg	1.0	U	U	Yes	
Acetophenone	180	ug/Kg	1.0	U	U	Yes	
4-Methylphenol	180	ug/Kg	1.0	U	U	Yes	
N-Nitroso-di-n-propylamine	180	ug/Kg	1.0	U	U	Yes	
Hexachloroethane	180	ug/Kg	1.0	U	U	Yes	
Nitrobenzene	180	ug/Kg	1.0	U	U	Yes	
Isophorone	180	ug/Kg	1.0	U	U	Yes	
2-Nitrophenol	180	ug/Kg	1.0	U	U	Yes	
2,4-Dimethylphenol	180	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethoxy)methane	180	ug/Kg	1.0	U	U	Yes	
2,4-Dichlorophenol	180	ug/Kg	1.0	U	U	Yes	
Naphthalene	180	ug/Kg	1.0	U	U	Yes	
4-Chloroaniline	180	ug/Kg	1.0	U	U	Yes	
Hexachlorobutadiene	180	ug/Kg	1.0	U	U	Yes	
Caprolactam	180	ug/Kg	1.0	U	U	Yes	
4-Chloro-3-methylphenol	180	ug/Kg	1.0	U	U	Yes	
2-Methylnaphthalene	180	ug/Kg	1.0	U	U	Yes	
Hexachlorocyclopentadiene	180	ug/Kg	1.0	U	U	Yes	
2,4,6-Trichlorophenol	180	ug/Kg	1.0	U	U	Yes	
2,4,5-Trichlorophenol	180	ug/Kg	1.0	U	U	Yes	
1,1'-Biphenyl	180	ug/Kg	1.0	U	U	Yes	
2-Chloronaphthalene	180	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
2-Nitroaniline	350	ug/Kg	1.0	U	U	Yes	
Dimethylphthalate	180	ug/Kg	1.0	U	U	Yes	
2,6-Dinitrotoluene	180	ug/Kg	1.0	U	U	Yes	
Acenaphthylene	180	ug/Kg	1.0	U	U	Yes	
3-Nitroaniline	350	ug/Kg	1.0	U	U	Yes	
Acenaphthene	180	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrophenol	350	ug/Kg	1.0	U	U	Yes	
4-Nitrophenol	350	ug/Kg	1.0	U	U	Yes	
Dibenzofuran	180	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrotoluene	180	ug/Kg	1.0	U	U	Yes	
Diethylphthalate	180	ug/Kg	1.0	U	U	Yes	
Fluorene	180	ug/Kg	1.0	U	U	Yes	
4-Chlorophenyl-phenylether	180	ug/Kg	1.0	U	U	Yes	
4-Nitroaniline	350	ug/Kg	1.0	U	U	Yes	
4,6-Dinitro-2-methylphenol	350	ug/Kg	1.0	U	U	Yes	
N-Nitrosodiphenylamine	180	ug/Kg	1.0	U	U	Yes	
1,2,4,5-Tetrachlorobenzene	180	ug/Kg	1.0	U	U	Yes	
4-Bromophenyl-phenylether	180	ug/Kg	1.0	U	U	Yes	
Hexachlorobenzene	180	ug/Kg	1.0	U	U	Yes	
Atrazine	180	ug/Kg	1.0	U	U	Yes	
Pentachlorophenol	350	ug/Kg	1.0	U	U	Yes	
Phenanthrene	180	ug/Kg	1.0	U	U	Yes	
Anthracene	180	ug/Kg	1.0	U	U	Yes	
Carbazole	180	ug/Kg	1.0	U	U	Yes	
Di-n-butylphthalate	180	ug/Kg	1.0	U	U	Yes	
Fluoranthene	180	ug/Kg	1.0	U	UJ	Yes	
Pyrene	180	ug/Kg	1.0	U	UJ	Yes	
Butylbenzylphthalate	38	ug/Kg	1.0	J	J	Yes	
3,3'-Dichlorobenzidine	180	ug/Kg	1.0	U	U	Yes	
Benzo(a)anthracene	180	ug/Kg	1.0	U	UJ	Yes	
Chrysene	180	ug/Kg	1.0	U	UJ	Yes	
Bis(2-ethylhexyl)	38	ug/Kg	1.0	J	J	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
phthalate	38	ug/Kg	1.0	J	J	Yes	
Di-n-octylphthalate	180	ug/Kg	1.0	U	U	Yes	
Benzo(b)fluoranthene	180	ug/Kg	1.0	U	U	Yes	
Benzo(k)fluoranthene	180	ug/Kg	1.0	U	U	Yes	
Benzo(a)pyrene	180	ug/Kg	1.0	U	U	Yes	
Indeno(1,2,3-cd)pyrene	180	ug/Kg	1.0	U	U	Yes	
Dibenzo(a,h)anthracene	180	ug/Kg	1.0	U	U	Yes	
Benzo(g,h,i)perylene	180	ug/Kg	1.0	U	U	Yes	
2,3,4,6-Tetrachlorophenol	180	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA5	Lab Code: MITKEM
Sample Number: E0AB1	Method: VOA_Low_Med	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SO13-(0-12)-072413D	pH: 7.0	Sample Date: 07/24/2013	Sample Time: 10:05:00
% Moisture : 6.15641		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	5.6	ug/Kg	1.0	U	U	Yes	
Chloromethane	5.6	ug/Kg	1.0	U	U	Yes	
Vinyl chloride	5.6	ug/Kg	1.0	U	U	Yes	
Bromomethane	5.6	ug/Kg	1.0	U	U	Yes	
Chloroethane	5.6	ug/Kg	1.0	U	U	Yes	
Trichlorofluorom ethane	5.6	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethene	5.6	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.6	ug/Kg	1.0	U	U	Yes	
Acetone	11	ug/Kg	1.0	U	U	Yes	
Carbon disulfide	5.6	ug/Kg	1.0	U	U	Yes	
Methyl acetate	5.6	ug/Kg	1.0	U	U	Yes	
Methylene chloride	5.6	ug/Kg	1.0	U	U	Yes	
trans-1,2-Dichloroethene	5.6	ug/Kg	1.0	U	U	Yes	
Methyl tert-butyl ether	5.6	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethane	5.6	ug/Kg	1.0	U	U	Yes	
cis-1,2-Dichloroethene	5.6	ug/Kg	1.0	U	U	Yes	
2-Butanone	11	ug/Kg	1.0	U	U	Yes	
Bromochloromet hane	5.6	ug/Kg	1.0	U	U	Yes	
Chloroform	5.6	ug/Kg	1.0	U	U	Yes	
1,1,1-Trichloroethane	5.6	ug/Kg	1.0	U	U	Yes	
Cyclohexane	5.6	ug/Kg	1.0	U	U	Yes	
Carbon tetrachloride	5.6	ug/Kg	1.0	U	U	Yes	
Benzene	5.6	ug/Kg	1.0	U	U	Yes	
1,2-Dichloroethane	5.6	ug/Kg	1.0	U	U	Yes	
1,4-Dioxane	110	ug/Kg	1.0	U	U	Yes	
Trichloroethene	5.6	ug/Kg	1.0	U	U	Yes	
Methylcyclohexa ne	5.6	ug/Kg	1.0	U	U	Yes	
1,2-Dichloropropane	5.6	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Bromodichloromethane	5.6	ug/Kg	1.0	U	U	Yes	
cis-1,3-Dichloropropene	5.6	ug/Kg	1.0	U	U	Yes	
4-Methyl-2-pentanone	11	ug/Kg	1.0	U	U	Yes	
Toluene	5.6	ug/Kg	1.0	U	U	Yes	
trans-1,3-Dichloropropene	5.6	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloroethane	5.6	ug/Kg	1.0	U	U	Yes	
Tetrachloroethene	5.6	ug/Kg	1.0	U	U	Yes	
2-Hexanone	11	ug/Kg	1.0	U	U	Yes	
Dibromochloromethane	5.6	ug/Kg	1.0	U	U	Yes	
1,2-Dibromoethane	5.6	ug/Kg	1.0	U	U	Yes	
Chlorobenzene	5.6	ug/Kg	1.0	U	U	Yes	
Ethylbenzene	5.6	ug/Kg	1.0	U	U	Yes	
o-Xylene	5.6	ug/Kg	1.0	U	U	Yes	
m,p-Xylene	5.6	ug/Kg	1.0	U	U	Yes	
Styrene	5.6	ug/Kg	1.0	U	U	Yes	
Bromoform	5.6	ug/Kg	1.0	U	U	Yes	
Isopropylbenzene	5.6	ug/Kg	1.0	U	U	Yes	
1,1,2,2-Tetrachloroethane	5.6	ug/Kg	1.0	U	U	Yes	
1,3-Dichlorobenzene	5.6	ug/Kg	1.0	U	U	Yes	
1,4-Dichlorobenzene	5.6	ug/Kg	1.0	U	U	Yes	
1,2-Dichlorobenzene	5.6	ug/Kg	1.0	U	U	Yes	
1,2-Dibromo-3-chloropropane	5.6	ug/Kg	1.0	U	U	Yes	
1,2,4-Trichlorobenzene	5.6	ug/Kg	1.0	U	U	Yes	
1,2,3-Trichlorobenzene	5.6	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA5	Lab Code: MITKEM
Sample Number: E0AB2	Method: VOA_Low_Med	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-S014-(0-12)-072413	pH: 7.0	Sample Date: 07/24/2013	Sample Time: 10:45:00
% Moisture : 1.96429		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	6.7	ug/Kg	1.0	U	U	Yes	
Chloromethane	6.7	ug/Kg	1.0	U	U	Yes	
Vinyl chloride	6.7	ug/Kg	1.0	U	U	Yes	
Bromomethane	6.7	ug/Kg	1.0	U	U	Yes	
Chloroethane	6.7	ug/Kg	1.0	U	U	Yes	
Trichlorofluorom ethane	6.7	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethene	6.7	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloro-1,2,2-trifluoroethane	6.7	ug/Kg	1.0	U	U	Yes	
Acetone	13	ug/Kg	1.0	U	U	Yes	
Carbon disulfide	6.7	ug/Kg	1.0	U	U	Yes	
Methyl acetate	6.7	ug/Kg	1.0	U	U	Yes	
Methylene chloride	6.7	ug/Kg	1.0	U	U	Yes	
trans-1,2-Dichloroethene	6.7	ug/Kg	1.0	U	U	Yes	
Methyl tert-butyl ether	6.7	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethane	6.7	ug/Kg	1.0	U	U	Yes	
cis-1,2-Dichloroethene	6.7	ug/Kg	1.0	U	U	Yes	
2-Butanone	13	ug/Kg	1.0	U	U	Yes	
Bromochloromet hane	6.7	ug/Kg	1.0	U	U	Yes	
Chloroform	6.7	ug/Kg	1.0	U	U	Yes	
1,1,1-Trichloroethane	6.7	ug/Kg	1.0	U	U	Yes	
Cyclohexane	6.7	ug/Kg	1.0	U	U	Yes	
Carbon tetrachloride	6.7	ug/Kg	1.0	U	U	Yes	
Benzene	6.7	ug/Kg	1.0	U	U	Yes	
1,2-Dichloroethane	6.7	ug/Kg	1.0	U	U	Yes	
1,4-Dioxane	130	ug/Kg	1.0	U	U	Yes	
Trichloroethene	6.7	ug/Kg	1.0	U	U	Yes	
Methylcyclohexa ne	6.7	ug/Kg	1.0	U	U	Yes	
1,2-Dichloropropane	6.7	ug/Kg	1.0	U	U	Yes	
Bromodichlorom	6.7	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
ethane	6.7	ug/Kg	1.0	U	U	Yes	
cis-1,3-Dichloropropene	6.7	ug/Kg	1.0	U	U	Yes	
4-Methyl-2-pentanone	13	ug/Kg	1.0	U	U	Yes	
Toluene	6.7	ug/Kg	1.0	U	U	Yes	
trans-1,3-Dichloropropene	6.7	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloroethane	6.7	ug/Kg	1.0	U	U	Yes	
Tetrachloroethene	6.7	ug/Kg	1.0	U	U	Yes	
2-Hexanone	13	ug/Kg	1.0	U	U	Yes	
Dibromochloromethane	6.7	ug/Kg	1.0	U	U	Yes	
1,2-Dibromoethane	6.7	ug/Kg	1.0	U	U	Yes	
Chlorobenzene	6.7	ug/Kg	1.0	U	U	Yes	
Ethylbenzene	6.7	ug/Kg	1.0	U	U	Yes	
o-Xylene	6.7	ug/Kg	1.0	U	U	Yes	
m,p-Xylene	6.7	ug/Kg	1.0	U	U	Yes	
Styrene	6.7	ug/Kg	1.0	U	U	Yes	
Bromoform	6.7	ug/Kg	1.0	U	U	Yes	
Isopropylbenzene	6.7	ug/Kg	1.0	U	U	Yes	
1,1,2,2-Tetrachloroethane	6.7	ug/Kg	1.0	U	U	Yes	
1,3-Dichlorobenzene	6.7	ug/Kg	1.0	U	U	Yes	
1,4-Dichlorobenzene	6.7	ug/Kg	1.0	U	U	Yes	
1,2-Dichlorobenzene	6.7	ug/Kg	1.0	U	U	Yes	
1,2-Dibromo-3-chloropropane	6.7	ug/Kg	1.0	U	U	Yes	
1,2,4-Trichlorobenzene	6.7	ug/Kg	1.0	U	U	Yes	
1,2,3-Trichlorobenzene	6.7	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA5	Lab Code: MITKEM
Sample Number: E0AB2	Method: BNA	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-S014-(0-12)-072413	pH: 6.9	Sample Date: 07/24/2013	Sample Time: 10:45:00
% Moisture : 1.96429		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Benzaldehyde	170	ug/Kg	1.0	U	U	Yes	
Phenol	170	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethyl)ether	170	ug/Kg	1.0	U	U	Yes	
2-Chlorophenol	170	ug/Kg	1.0	U	U	Yes	
2-Methylphenol	170	ug/Kg	1.0	U	U	Yes	
2,2'-Oxybis(1-chloropropane)	170	ug/Kg	1.0	U	U	Yes	
Acetophenone	170	ug/Kg	1.0	U	U	Yes	
4-Methylphenol	170	ug/Kg	1.0	U	U	Yes	
N-Nitroso-di-n-propylamine	170	ug/Kg	1.0	U	UJ	Yes	
Hexachloroethane	170	ug/Kg	1.0	U	U	Yes	
Nitrobenzene	170	ug/Kg	1.0	U	U	Yes	
Isophorone	170	ug/Kg	1.0	U	U	Yes	
2-Nitrophenol	170	ug/Kg	1.0	U	U	Yes	
2,4-Dimethylphenol	170	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethoxy)methane	170	ug/Kg	1.0	U	U	Yes	
2,4-Dichlorophenol	170	ug/Kg	1.0	U	U	Yes	
Naphthalene	170	ug/Kg	1.0	U	U	Yes	
4-Chloroaniline	170	ug/Kg	1.0	U	U	Yes	
Hexachlorobutadiene	170	ug/Kg	1.0	U	U	Yes	
Caprolactam	170	ug/Kg	1.0	U	U	Yes	
4-Chloro-3-methylphenol	170	ug/Kg	1.0	U	U	Yes	
2-Methylnaphthalene	170	ug/Kg	1.0	U	U	Yes	
Hexachlorocyclopentadiene	170	ug/Kg	1.0	U	U	Yes	
2,4,6-Trichlorophenol	170	ug/Kg	1.0	U	U	Yes	
2,4,5-Trichlorophenol	170	ug/Kg	1.0	U	U	Yes	
1,1'-Biphenyl	170	ug/Kg	1.0	U	U	Yes	
2-Chloronaphthalene	170	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
2-Nitroaniline	330	ug/Kg	1.0	U	U	Yes	
Dimethylphthalate	170	ug/Kg	1.0	U	U	Yes	
2,6-Dinitrotoluene	170	ug/Kg	1.0	U	U	Yes	
Acenaphthylene	170	ug/Kg	1.0	U	U	Yes	
3-Nitroaniline	330	ug/Kg	1.0	U	U	Yes	
Acenaphthene	170	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrophenol	330	ug/Kg	1.0	U	U	Yes	
4-Nitrophenol	330	ug/Kg	1.0	U	U	Yes	
Dibenzofuran	170	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrotoluene	170	ug/Kg	1.0	U	U	Yes	
Diethylphthalate	170	ug/Kg	1.0	U	U	Yes	
Fluorene	170	ug/Kg	1.0	U	U	Yes	
4-Chlorophenyl-phenylether	170	ug/Kg	1.0	U	U	Yes	
4-Nitroaniline	330	ug/Kg	1.0	U	U	Yes	
4,6-Dinitro-2-methylphenol	330	ug/Kg	1.0	U	U	Yes	
N-Nitrosodiphenylamine	170	ug/Kg	1.0	U	U	Yes	
1,2,4,5-Tetrachlorobenzene	170	ug/Kg	1.0	U	U	Yes	
4-Bromophenyl-phenylether	170	ug/Kg	1.0	U	U	Yes	
Hexachlorobenzene	170	ug/Kg	1.0	U	U	Yes	
Atrazine	170	ug/Kg	1.0	U	U	Yes	
Pentachlorophenol	330	ug/Kg	1.0	U	U	Yes	
Phenanthrene	170	ug/Kg	1.0	U	U	Yes	
Anthracene	170	ug/Kg	1.0	U	U	Yes	
Carbazole	170	ug/Kg	1.0	U	U	Yes	
Di-n-butylphthalate	170	ug/Kg	1.0	U	U	Yes	
Fluoranthene	170	ug/Kg	1.0	U	U	Yes	
Pyrene	170	ug/Kg	1.0	U	UJ	Yes	
Butylbenzylphthalate	170	ug/Kg	1.0	U	U	Yes	
3,3'-Dichlorobenzidine	170	ug/Kg	1.0	U	U	Yes	
Benzo(a)anthracene	170	ug/Kg	1.0	U	U	Yes	
Chrysene	170	ug/Kg	1.0	U	U	Yes	
Bis(2-ethylhexyl)	170	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
phthalate	170	ug/Kg	1.0	U	U	Yes	
Di-n-octylphthalate	170	ug/Kg	1.0	U	U	Yes	
Benzo(b)fluoranthene	170	ug/Kg	1.0	U	U	Yes	
Benzo(k)fluoranthene	170	ug/Kg	1.0	U	U	Yes	
Benzo(a)pyrene	170	ug/Kg	1.0	U	U	Yes	
Indeno(1,2,3-cd)pyrene	170	ug/Kg	1.0	U	U	Yes	
Dibenzo(a,h)anthracene	170	ug/Kg	1.0	U	U	Yes	
Benzo(g,h,i)perylene	170	ug/Kg	1.0	U	U	Yes	
2,3,4,6-Tetrachlorophenol	170	ug/Kg	1.0	U	U	Yes	
Hexadecanoic acid, butyl ester	150	ug/Kg	1.0	NJ	NJ	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA5	Lab Code: MITKEM
Sample Number: E0AB2MS	Method: BNA	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-S014-(0-12)-072413	pH: 6.9	Sample Date: 07/24/2013	Sample Time: 10:45:00
% Moisture : 1.96429		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Phenol	720	ug/Kg	1.0			Yes	
Benzaldehyde	170	ug/Kg	1.0	U	U	Yes	
2-Chlorophenol	680	ug/Kg	1.0			Yes	
Bis(2-chloroethyl)ether	170	ug/Kg	1.0	U	U	Yes	
N-Nitroso-di-n-propylamine	640	ug/Kg	1.0			Yes	
4-Chloro-3-methylphenol	710	ug/Kg	1.0			Yes	
Acenaphthene	660	ug/Kg	1.0			Yes	
2-Methylphenol	170	ug/Kg	1.0	U	U	Yes	
4-Nitrophenol	800	ug/Kg	1.0			Yes	
2,2'-Oxybis(1-chloropropane)	170	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrotoluene	710	ug/Kg	1.0			Yes	
Acetophenone	170	ug/Kg	1.0	U	U	Yes	
Pentachlorophenol	840	ug/Kg	1.0		J	Yes	
4-Methylphenol	170	ug/Kg	1.0	U	U	Yes	
Pyrene	440	ug/Kg	1.0			Yes	
Hexachloroethane	170	ug/Kg	1.0	U	U	Yes	
Nitrobenzene	170	ug/Kg	1.0	U	U	Yes	
Isophorone	170	ug/Kg	1.0	U	U	Yes	
2-Nitrophenol	170	ug/Kg	1.0	U	U	Yes	
2,4-Dimethylphenol	170	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethoxy)methane	170	ug/Kg	1.0	U	U	Yes	
2,4-Dichlorophenol	170	ug/Kg	1.0	U	U	Yes	
Naphthalene	170	ug/Kg	1.0	U	U	Yes	
4-Chloroaniline	170	ug/Kg	1.0	U	U	Yes	
Hexachlorobutadiene	170	ug/Kg	1.0	U	U	Yes	
Caprolactam	170	ug/Kg	1.0	U	U	Yes	
2-Methylnaphthalene	170	ug/Kg	1.0	U	U	Yes	
Hexachlorocyclopentadiene	170	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
2,4,6-Trichlorophenol	170	ug/Kg	1.0	U	U	Yes	
2,4,5-Trichlorophenol	170	ug/Kg	1.0	U	U	Yes	
1,1'-Biphenyl	170	ug/Kg	1.0	U	U	Yes	
2-Chloronaphthalene	170	ug/Kg	1.0	U	U	Yes	
2-Nitroaniline	330	ug/Kg	1.0	U	U	Yes	
Dimethylphthalate	170	ug/Kg	1.0	U	U	Yes	
2,6-Dinitrotoluene	170	ug/Kg	1.0	U	U	Yes	
Acenaphthylene	170	ug/Kg	1.0	U	U	Yes	
3-Nitroaniline	330	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrophenol	330	ug/Kg	1.0	U	U	Yes	
Dibenzofuran	170	ug/Kg	1.0	U	U	Yes	
Diethylphthalate	170	ug/Kg	1.0	U	U	Yes	
Fluorene	170	ug/Kg	1.0	U	U	Yes	
4-Chlorophenyl-phenylether	170	ug/Kg	1.0	U	U	Yes	
4-Nitroaniline	330	ug/Kg	1.0	U	U	Yes	
4,6-Dinitro-2-methylphenol	330	ug/Kg	1.0	U	U	Yes	
N-Nitrosodiphenylamine	170	ug/Kg	1.0	U	U	Yes	
1,2,4,5-Tetrachlorobenzene	170	ug/Kg	1.0	U	U	Yes	
4-Bromophenyl-phenylether	170	ug/Kg	1.0	U	U	Yes	
Hexachlorobenzene	170	ug/Kg	1.0	U	U	Yes	
Atrazine	170	ug/Kg	1.0	U	U	Yes	
Phenanthrene	170	ug/Kg	1.0	U	U	Yes	
Anthracene	170	ug/Kg	1.0	U	U	Yes	
Carbazole	170	ug/Kg	1.0	U	U	Yes	
Di-n-butylphthalate	170	ug/Kg	1.0	U	U	Yes	
Fluoranthene	170	ug/Kg	1.0	U	U	Yes	
Butylbenzylphthalate	36	ug/Kg	1.0	J	J	Yes	
3,3'-Dichlorobenzidine	170	ug/Kg	1.0	U	U	Yes	
Benzo(a)anthracene	170	ug/Kg	1.0	U	U	Yes	
Chrysene	170	ug/Kg	1.0	U	U	Yes	
Bis(2-ethylhexyl)	170	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
phthalate	170	ug/Kg	1.0	U	U	Yes	
Di-n-octylphthalate	170	ug/Kg	1.0	U	U	Yes	
Benzo(b)fluoranthene	170	ug/Kg	1.0	U	U	Yes	
Benzo(k)fluoranthene	170	ug/Kg	1.0	U	U	Yes	
Benzo(a)pyrene	170	ug/Kg	1.0	U	U	Yes	
Indeno(1,2,3-cd)pyrene	170	ug/Kg	1.0	U	U	Yes	
Dibenzo(a,h)anthracene	170	ug/Kg	1.0	U	U	Yes	
Benzo(g,h,i)perylene	170	ug/Kg	1.0	U	U	Yes	
2,3,4,6-Tetrachlorophenol	170	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA5	Lab Code: MITKEM
Sample Number: E0AB2MS	Method: VOA_Low_Med	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-S014-(0-12)-072413	pH: 7.0	Sample Date: 07/24/2013	Sample Time: 10:45:00
% Moisture : 1.96429		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	7.5	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethene	61	ug/Kg	1.0			Yes	
Benzene	71	ug/Kg	1.0			Yes	
Chloromethane	7.5	ug/Kg	1.0	U	U	Yes	
Trichloroethene	67	ug/Kg	1.0			Yes	
Vinyl chloride	7.5	ug/Kg	1.0	U	U	Yes	
Bromomethane	7.5	ug/Kg	1.0	U	U	Yes	
Toluene	69	ug/Kg	1.0			Yes	
Chloroethane	7.5	ug/Kg	1.0	U	U	Yes	
Chlorobenzene	71	ug/Kg	1.0			Yes	
Trichlorofluorom ethane	7.5	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloro-1,2,2-trifluoroethane	7.5	ug/Kg	1.0	U	U	Yes	
Acetone	15	ug/Kg	1.0	U	U	Yes	
Carbon disulfide	7.5	ug/Kg	1.0	U	U	Yes	
Methyl acetate	7.5	ug/Kg	1.0	U	U	Yes	
Methylene chloride	7.5	ug/Kg	1.0	U	U	Yes	
trans-1,2-Dichloroethene	7.5	ug/Kg	1.0	U	U	Yes	
Methyl tert-butyl ether	7.5	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethane	7.5	ug/Kg	1.0	U	U	Yes	
cis-1,2-Dichloroethene	7.5	ug/Kg	1.0	U	U	Yes	
2-Butanone	15	ug/Kg	1.0	U	U	Yes	
Bromochloromet hane	7.5	ug/Kg	1.0	U	U	Yes	
Chloroform	7.5	ug/Kg	1.0	U	U	Yes	
1,1,1-Trichloroethane	7.5	ug/Kg	1.0	U	U	Yes	
Cyclohexane	7.5	ug/Kg	1.0	U	U	Yes	
Carbon tetrachloride	7.5	ug/Kg	1.0	U	U	Yes	
1,2-Dichloroethane	7.5	ug/Kg	1.0	U	U	Yes	
1,4-Dioxane	150	ug/Kg	1.0	U	U	Yes	
Methylcyclohexa ne	7.5	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
1,2-Dichloropropane	7.5	ug/Kg	1.0	U	U	Yes	
Bromodichlorom ethane	7.5	ug/Kg	1.0	U	U	Yes	
cis-1,3-Dichloropropene	7.5	ug/Kg	1.0	U	U	Yes	
4-Methyl-2-pentanone	15	ug/Kg	1.0	U	U	Yes	
trans-1,3-Dichloropropene	7.5	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloroethane	7.5	ug/Kg	1.0	U	U	Yes	
Tetrachloroethen e	7.5	ug/Kg	1.0	U	U	Yes	
2-Hexanone	15	ug/Kg	1.0	U	U	Yes	
Dibromochlorom ethane	7.5	ug/Kg	1.0	U	U	Yes	
1,2-Dibromoethane	7.5	ug/Kg	1.0	U	U	Yes	
Ethylbenzene	7.5	ug/Kg	1.0	U	U	Yes	
o-Xylene	7.5	ug/Kg	1.0	U	U	Yes	
m,p-Xylene	7.5	ug/Kg	1.0	U	U	Yes	
Styrene	7.5	ug/Kg	1.0	U	U	Yes	
Bromoform	7.5	ug/Kg	1.0	U	U	Yes	
Isopropylbenzen e	7.5	ug/Kg	1.0	U	U	Yes	
1,1,2,2-Tetrachloroethan e	7.5	ug/Kg	1.0	U	U	Yes	
1,3-Dichlorobenzene	7.5	ug/Kg	1.0	U	U	Yes	
1,4-Dichlorobenzene	7.5	ug/Kg	1.0	U	U	Yes	
1,2-Dichlorobenzene	7.5	ug/Kg	1.0	U	U	Yes	
1,2-Dibromo-3-chloropropane	7.5	ug/Kg	1.0	U	U	Yes	
1,2,4-Trichlorobenzen e	7.5	ug/Kg	1.0	U	U	Yes	
1,2,3-Trichlorobenzen e	7.5	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA5	Lab Code: MITKEM
Sample Number: E0AB2MSD	Method: VOA_Low_Med	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-S014-(0-12)-072413	pH: 7.0	Sample Date: 07/24/2013	Sample Time: 10:45:00
% Moisture : 1.96429		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
1,1-Dichloroethene	54	ug/Kg	1.0			Yes	
Dichlorodifluoro methane	6.9	ug/Kg	1.0	U	U	Yes	
Benzene	64	ug/Kg	1.0			Yes	
Chloromethane	6.9	ug/Kg	1.0	U	U	Yes	
Trichloroethene	61	ug/Kg	1.0			Yes	
Vinyl chloride	6.9	ug/Kg	1.0	U	U	Yes	
Bromomethane	6.9	ug/Kg	1.0	U	U	Yes	
Toluene	64	ug/Kg	1.0			Yes	
Chloroethane	6.9	ug/Kg	1.0	U	U	Yes	
Chlorobenzene	65	ug/Kg	1.0			Yes	
Trichlorofluorom ethane	6.9	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloro-1,2,2-trifluoroethane	6.9	ug/Kg	1.0	U	U	Yes	
Acetone	14	ug/Kg	1.0	U	U	Yes	
Carbon disulfide	6.9	ug/Kg	1.0	U	U	Yes	
Methyl acetate	6.9	ug/Kg	1.0	U	U	Yes	
Methylene chloride	6.9	ug/Kg	1.0	U	U	Yes	
trans-1,2-Dichloroethene	6.9	ug/Kg	1.0	U	U	Yes	
Methyl tert-butyl ether	6.9	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethane	6.9	ug/Kg	1.0	U	U	Yes	
cis-1,2-Dichloroethene	6.9	ug/Kg	1.0	U	U	Yes	
2-Butanone	14	ug/Kg	1.0	U	U	Yes	
Bromochloromet hane	6.9	ug/Kg	1.0	U	U	Yes	
Chloroform	6.9	ug/Kg	1.0	U	U	Yes	
1,1,1-Trichloroethane	6.9	ug/Kg	1.0	U	U	Yes	
Cyclohexane	6.9	ug/Kg	1.0	U	U	Yes	
Carbon tetrachloride	6.9	ug/Kg	1.0	U	U	Yes	
1,2-Dichloroethane	6.9	ug/Kg	1.0	U	U	Yes	
1,4-Dioxane	140	ug/Kg	1.0	U	U	Yes	
Methylcyclohexa ne	6.9	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
1,2-Dichloropropane	6.9	ug/Kg	1.0	U	U	Yes	
Bromodichloromethane	6.9	ug/Kg	1.0	U	U	Yes	
cis-1,3-Dichloropropene	6.9	ug/Kg	1.0	U	U	Yes	
4-Methyl-2-pentanone	14	ug/Kg	1.0	U	U	Yes	
trans-1,3-Dichloropropene	6.9	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloroethane	6.9	ug/Kg	1.0	U	U	Yes	
Tetrachloroethene	6.9	ug/Kg	1.0	U	U	Yes	
2-Hexanone	14	ug/Kg	1.0	U	U	Yes	
Dibromochloromethane	6.9	ug/Kg	1.0	U	U	Yes	
1,2-Dibromoethane	6.9	ug/Kg	1.0	U	U	Yes	
Ethylbenzene	6.9	ug/Kg	1.0	U	U	Yes	
o-Xylene	6.9	ug/Kg	1.0	U	U	Yes	
m,p-Xylene	6.9	ug/Kg	1.0	U	U	Yes	
Styrene	6.9	ug/Kg	1.0	U	U	Yes	
Bromoform	6.9	ug/Kg	1.0	U	U	Yes	
Isopropylbenzene	6.9	ug/Kg	1.0	U	U	Yes	
1,1,2,2-Tetrachloroethane	6.9	ug/Kg	1.0	U	U	Yes	
1,3-Dichlorobenzene	6.9	ug/Kg	1.0	U	U	Yes	
1,4-Dichlorobenzene	6.9	ug/Kg	1.0	U	U	Yes	
1,2-Dichlorobenzene	6.9	ug/Kg	1.0	U	U	Yes	
1,2-Dibromo-3-chloropropane	6.9	ug/Kg	1.0	U	U	Yes	
1,2,4-Trichlorobenzene	6.9	ug/Kg	1.0	U	U	Yes	
1,2,3-Trichlorobenzene	6.9	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA5	Lab Code: MITKEM
Sample Number: E0AB2MSD	Method: BNA	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-S014-(0-12)-072413	pH: 6.9	Sample Date: 07/24/2013	Sample Time: 10:45:00
% Moisture : 1.96429		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Benzaldehyde	170	ug/Kg	1.0	U	U	Yes	
Phenol	620	ug/Kg	1.0			Yes	
2-Chlorophenol	610	ug/Kg	1.0			Yes	
Bis(2-chloroethyl)ether	170	ug/Kg	1.0	U	U	Yes	
N-Nitroso-di-n-propylamine	540	ug/Kg	1.0			Yes	
4-Chloro-3-methylphenol	640	ug/Kg	1.0			Yes	
2-Methylphenol	170	ug/Kg	1.0	U	U	Yes	
Acenaphthene	580	ug/Kg	1.0			Yes	
2,2'-Oxybis(1-chloropropane)	170	ug/Kg	1.0	U	U	Yes	
4-Nitrophenol	640	ug/Kg	1.0			Yes	
2,4-Dinitrotoluene	650	ug/Kg	1.0			Yes	
Acetophenone	170	ug/Kg	1.0	U	U	Yes	
Pentachlorophenol	860	ug/Kg	1.0		J	Yes	
4-Methylphenol	170	ug/Kg	1.0	U	U	Yes	
Pyrene	390	ug/Kg	1.0		J	Yes	
Hexachloroethane	170	ug/Kg	1.0	U	U	Yes	
Nitrobenzene	170	ug/Kg	1.0	U	U	Yes	
Isophorone	170	ug/Kg	1.0	U	U	Yes	
2-Nitrophenol	170	ug/Kg	1.0	U	U	Yes	
2,4-Dimethylphenol	170	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethoxy)methane	170	ug/Kg	1.0	U	U	Yes	
2,4-Dichlorophenol	170	ug/Kg	1.0	U	U	Yes	
Naphthalene	170	ug/Kg	1.0	U	U	Yes	
4-Chloroaniline	170	ug/Kg	1.0	U	U	Yes	
Hexachlorobutadiene	170	ug/Kg	1.0	U	U	Yes	
Caprolactam	170	ug/Kg	1.0	U	U	Yes	
2-Methylnaphthalene	170	ug/Kg	1.0	U	U	Yes	
Hexachlorocyclopentadiene	170	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
2,4,6-Trichlorophenol	170	ug/Kg	1.0	U	U	Yes	
2,4,5-Trichlorophenol	170	ug/Kg	1.0	U	U	Yes	
1,1'-Biphenyl	170	ug/Kg	1.0	U	U	Yes	
2-Chloronaphthalene	170	ug/Kg	1.0	U	U	Yes	
2-Nitroaniline	330	ug/Kg	1.0	U	U	Yes	
Dimethylphthalate	170	ug/Kg	1.0	U	U	Yes	
2,6-Dinitrotoluene	170	ug/Kg	1.0	U	U	Yes	
Acenaphthylene	170	ug/Kg	1.0	U	U	Yes	
3-Nitroaniline	330	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrophenol	330	ug/Kg	1.0	U	U	Yes	
Dibenzofuran	170	ug/Kg	1.0	U	U	Yes	
Diethylphthalate	170	ug/Kg	1.0	U	U	Yes	
Fluorene	170	ug/Kg	1.0	U	U	Yes	
4-Chlorophenyl-phenylether	170	ug/Kg	1.0	U	U	Yes	
4-Nitroaniline	330	ug/Kg	1.0	U	U	Yes	
4,6-Dinitro-2-methylphenol	330	ug/Kg	1.0	U	U	Yes	
N-Nitrosodiphenylamine	170	ug/Kg	1.0	U	U	Yes	
1,2,4,5-Tetrachlorobenzene	170	ug/Kg	1.0	U	U	Yes	
4-Bromophenyl-phenylether	170	ug/Kg	1.0	U	U	Yes	
Hexachlorobenzene	170	ug/Kg	1.0	U	U	Yes	
Atrazine	170	ug/Kg	1.0	U	U	Yes	
Phenanthrene	170	ug/Kg	1.0	U	U	Yes	
Anthracene	170	ug/Kg	1.0	U	U	Yes	
Carbazole	170	ug/Kg	1.0	U	U	Yes	
Di-n-butylphthalate	170	ug/Kg	1.0	U	U	Yes	
Fluoranthene	170	ug/Kg	1.0	U	UJ	Yes	
Butylbenzylphthalate	170	ug/Kg	1.0	U	U	Yes	
3,3'-Dichlorobenzidine	170	ug/Kg	1.0	U	U	Yes	
Benzo(a)anthracene	170	ug/Kg	1.0	U	UJ	Yes	
Chrysene	170	ug/Kg	1.0	U	UJ	Yes	
Bis(2-ethylhexyl)	170	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
phthalate	170	ug/Kg	1.0	U	U	Yes	
Di-n-octylphthalate	170	ug/Kg	1.0	U	U	Yes	
Benzo(b)fluoranthene	170	ug/Kg	1.0	U	U	Yes	
Benzo(k)fluoranthene	170	ug/Kg	1.0	U	U	Yes	
Benzo(a)pyrene	170	ug/Kg	1.0	U	U	Yes	
Indeno(1,2,3-cd)pyrene	170	ug/Kg	1.0	U	U	Yes	
Dibenzo(a,h)anthracene	170	ug/Kg	1.0	U	U	Yes	
Benzo(g,h,i)perylene	170	ug/Kg	1.0	U	U	Yes	
2,3,4,6-Tetrachlorophenol	170	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA5	Lab Code: MITKEM
Sample Number: E0AB3	Method: BNA	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD08-(0-6)-072413	pH: 7.4	Sample Date: 07/24/2013	Sample Time: 15:00:00
% Moisture : 33.15143		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Benzaldehyde	250	ug/Kg	1.0	U	U	Yes	
Phenol	250	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethyl)ether	250	ug/Kg	1.0	U	U	Yes	
2-Chlorophenol	250	ug/Kg	1.0	U	U	Yes	
2-Methylphenol	250	ug/Kg	1.0	U	U	Yes	
2,2'-Oxybis(1-chloropropane)	250	ug/Kg	1.0	U	U	Yes	
Acetophenone	250	ug/Kg	1.0	U	U	Yes	
4-Methylphenol	250	ug/Kg	1.0	U	U	Yes	
N-Nitroso-di-n-propylamine	250	ug/Kg	1.0	U	U	Yes	
Hexachloroethane	250	ug/Kg	1.0	U	U	Yes	
Nitrobenzene	250	ug/Kg	1.0	U	U	Yes	
Isophorone	250	ug/Kg	1.0	U	U	Yes	
2-Nitrophenol	250	ug/Kg	1.0	U	U	Yes	
2,4-Dimethylphenol	250	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethoxy)methane	250	ug/Kg	1.0	U	U	Yes	
2,4-Dichlorophenol	250	ug/Kg	1.0	U	U	Yes	
Naphthalene	250	ug/Kg	1.0	U	U	Yes	
4-Chloroaniline	250	ug/Kg	1.0	U	U	Yes	
Hexachlorobutadiene	250	ug/Kg	1.0	U	U	Yes	
Caprolactam	250	ug/Kg	1.0	U	U	Yes	
4-Chloro-3-methylphenol	250	ug/Kg	1.0	U	U	Yes	
2-Methylnaphthalene	250	ug/Kg	1.0	U	U	Yes	
Hexachlorocyclopentadiene	250	ug/Kg	1.0	U	U	Yes	
2,4,6-Trichlorophenol	250	ug/Kg	1.0	U	U	Yes	
2,4,5-Trichlorophenol	250	ug/Kg	1.0	U	U	Yes	
1,1'-Biphenyl	250	ug/Kg	1.0	U	U	Yes	
2-Chloronaphthalene	250	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
2-Nitroaniline	480	ug/Kg	1.0	U	U	Yes	
Dimethylphthalate	250	ug/Kg	1.0	U	U	Yes	
2,6-Dinitrotoluene	250	ug/Kg	1.0	U	U	Yes	
Acenaphthylene	250	ug/Kg	1.0	U	U	Yes	
3-Nitroaniline	480	ug/Kg	1.0	U	U	Yes	
Acenaphthene	250	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrophenol	480	ug/Kg	1.0	U	U	Yes	
4-Nitrophenol	480	ug/Kg	1.0	U	U	Yes	
Dibenzofuran	250	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrotoluene	250	ug/Kg	1.0	U	U	Yes	
Diethylphthalate	250	ug/Kg	1.0	U	U	Yes	
Fluorene	250	ug/Kg	1.0	U	U	Yes	
4-Chlorophenyl-phenylether	250	ug/Kg	1.0	U	U	Yes	
4-Nitroaniline	480	ug/Kg	1.0	U	U	Yes	
4,6-Dinitro-2-methylphenol	480	ug/Kg	1.0	U	U	Yes	
N-Nitrosodiphenylamine	250	ug/Kg	1.0	U	U	Yes	
1,2,4,5-Tetrachlorobenzene	250	ug/Kg	1.0	U	U	Yes	
4-Bromophenyl-phenylether	250	ug/Kg	1.0	U	U	Yes	
Hexachlorobenzene	250	ug/Kg	1.0	U	U	Yes	
Atrazine	250	ug/Kg	1.0	U	U	Yes	
Pentachlorophenol	480	ug/Kg	1.0	U	U	Yes	
Phenanthrene	250	ug/Kg	1.0	U	U	Yes	
Anthracene	250	ug/Kg	1.0	U	U	Yes	
Carbazole	250	ug/Kg	1.0	U	U	Yes	
Di-n-butylphthalate	250	ug/Kg	1.0	U	U	Yes	
Fluoranthene	250	ug/Kg	1.0	U	UJ	Yes	
Pyrene	250	ug/Kg	1.0	U	UJ	Yes	
Butylbenzylphthalate	53	ug/Kg	1.0	J	J	Yes	
3,3'-Dichlorobenzidine	250	ug/Kg	1.0	U	U	Yes	
Benzo(a)anthracene	250	ug/Kg	1.0	U	UJ	Yes	
Chrysene	250	ug/Kg	1.0	U	UJ	Yes	
Bis(2-ethylhexyl)	52	ug/Kg	1.0	J	J	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
phthalate	52	ug/Kg	1.0	J	J	Yes	
Di-n-octylphthalate	250	ug/Kg	1.0	U	U	Yes	
Benzo(b)fluoranthene	250	ug/Kg	1.0	U	U	Yes	
Benzo(k)fluoranthene	250	ug/Kg	1.0	U	U	Yes	
Benzo(a)pyrene	250	ug/Kg	1.0	U	U	Yes	
Indeno(1,2,3-cd)pyrene	250	ug/Kg	1.0	U	U	Yes	
Dibenzo(a,h)anthracene	250	ug/Kg	1.0	U	U	Yes	
Benzo(g,h,i)perylene	250	ug/Kg	1.0	U	U	Yes	
2,3,4,6-Tetrachlorophenol	250	ug/Kg	1.0	U	U	Yes	
Phenol, 4,4'-(1-methylethylidene)bis-	220	ug/Kg	1.0	NJ	NJ	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA5	Lab Code: MITKEM
Sample Number: E0AB3	Method: VOA_Low_Med	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD08-(0-6)-072413	pH: 7.0	Sample Date: 07/24/2013	Sample Time: 15:00:00
% Moisture : 33.15143		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	8.1	ug/Kg	1.0	U	U	Yes	
Chloromethane	8.1	ug/Kg	1.0	U	U	Yes	
Vinyl chloride	8.1	ug/Kg	1.0	U	U	Yes	
Bromomethane	8.1	ug/Kg	1.0	U	U	Yes	
Chloroethane	8.1	ug/Kg	1.0	U	U	Yes	
Trichlorofluorom ethane	8.1	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethene	8.1	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloro-1,2,2-trifluoroethane	8.1	ug/Kg	1.0	U	U	Yes	
Acetone	16	ug/Kg	1.0	U	U	Yes	
Carbon disulfide	8.1	ug/Kg	1.0	U	U	Yes	
Methyl acetate	8.1	ug/Kg	1.0	U	U	Yes	
Methylene chloride	8.1	ug/Kg	1.0	U	U	Yes	
trans-1,2-Dichloroethene	8.1	ug/Kg	1.0	U	U	Yes	
Methyl tert-butyl ether	8.1	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethane	8.1	ug/Kg	1.0	U	U	Yes	
cis-1,2-Dichloroethene	8.1	ug/Kg	1.0	U	U	Yes	
2-Butanone	16	ug/Kg	1.0	U	U	Yes	
Bromochloromet hane	8.1	ug/Kg	1.0	U	U	Yes	
Chloroform	8.1	ug/Kg	1.0	U	U	Yes	
1,1,1-Trichloroethane	8.1	ug/Kg	1.0	U	U	Yes	
Cyclohexane	8.1	ug/Kg	1.0	U	U	Yes	
Carbon tetrachloride	8.1	ug/Kg	1.0	U	U	Yes	
Benzene	8.1	ug/Kg	1.0	U	U	Yes	
1,2-Dichloroethane	8.1	ug/Kg	1.0	U	U	Yes	
1,4-Dioxane	160	ug/Kg	1.0	U	U	Yes	
Trichloroethene	8.1	ug/Kg	1.0	U	U	Yes	
Methylcyclohexa ne	8.1	ug/Kg	1.0	U	U	Yes	
1,2-Dichloropropane	8.1	ug/Kg	1.0	U	U	Yes	
Bromodichlorom	8.1	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
ethane	8.1	ug/Kg	1.0	U	U	Yes	
cis-1,3-Dichloropropene	8.1	ug/Kg	1.0	U	U	Yes	
4-Methyl-2-pentanone	16	ug/Kg	1.0	U	U	Yes	
Toluene	8.1	ug/Kg	1.0	U	U	Yes	
trans-1,3-Dichloropropene	8.1	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloroethane	8.1	ug/Kg	1.0	U	U	Yes	
Tetrachloroethene	8.1	ug/Kg	1.0	U	U	Yes	
2-Hexanone	16	ug/Kg	1.0	U	U	Yes	
Dibromochloromethane	8.1	ug/Kg	1.0	U	U	Yes	
1,2-Dibromoethane	8.1	ug/Kg	1.0	U	U	Yes	
Chlorobenzene	8.1	ug/Kg	1.0	U	U	Yes	
Ethylbenzene	8.1	ug/Kg	1.0	U	U	Yes	
o-Xylene	8.1	ug/Kg	1.0	U	U	Yes	
m,p-Xylene	8.1	ug/Kg	1.0	U	U	Yes	
Styrene	8.1	ug/Kg	1.0	U	U	Yes	
Bromoform	8.1	ug/Kg	1.0	U	U	Yes	
Isopropylbenzene	8.1	ug/Kg	1.0	U	U	Yes	
1,1,2,2-Tetrachloroethane	8.1	ug/Kg	1.0	U	U	Yes	
1,3-Dichlorobenzene	8.1	ug/Kg	1.0	U	U	Yes	
1,4-Dichlorobenzene	8.1	ug/Kg	1.0	U	U	Yes	
1,2-Dichlorobenzene	8.1	ug/Kg	1.0	U	U	Yes	
1,2-Dibromo-3-chloropropane	8.1	ug/Kg	1.0	U	U	Yes	
1,2,4-Trichlorobenzene	8.1	ug/Kg	1.0	U	U	Yes	
1,2,3-Trichlorobenzene	8.1	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA5	Lab Code: MITKEM

Sample Number:	E0AB4	Method:	VOA_Low_Med	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD08-(6-12)-072413	pH:	7.0	Sample Date:	07/24/2013	Sample Time:	15:05:00
% Moisture :	17.76000			% Solids :			

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	8.0	ug/Kg	1.0	U	U	Yes	
Chloromethane	8.0	ug/Kg	1.0	U	U	Yes	
Vinyl chloride	8.0	ug/Kg	1.0	U	U	Yes	
Bromomethane	8.0	ug/Kg	1.0	U	U	Yes	
Chloroethane	8.0	ug/Kg	1.0	U	U	Yes	
Trichlorofluorom ethane	8.0	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethene	8.0	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloro-1,2,2-trifluoroethane	8.0	ug/Kg	1.0	U	U	Yes	
Acetone	16	ug/Kg	1.0	U	U	Yes	
Carbon disulfide	8.0	ug/Kg	1.0	U	U	Yes	
Methyl acetate	8.0	ug/Kg	1.0	U	U	Yes	
Methylene chloride	8.0	ug/Kg	1.0	U	U	Yes	
trans-1,2-Dichloroethene	8.0	ug/Kg	1.0	U	U	Yes	
Methyl tert-butyl ether	8.0	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethane	8.0	ug/Kg	1.0	U	U	Yes	
cis-1,2-Dichloroethene	8.0	ug/Kg	1.0	U	U	Yes	
2-Butanone	16	ug/Kg	1.0	U	U	Yes	
Bromochloromet hane	8.0	ug/Kg	1.0	U	U	Yes	
Chloroform	8.0	ug/Kg	1.0	U	U	Yes	
1,1,1-Trichloroethane	8.0	ug/Kg	1.0	U	U	Yes	
Cyclohexane	8.0	ug/Kg	1.0	U	U	Yes	
Carbon tetrachloride	8.0	ug/Kg	1.0	U	U	Yes	
Benzene	8.0	ug/Kg	1.0	U	U	Yes	
1,2-Dichloroethane	8.0	ug/Kg	1.0	U	U	Yes	
1,4-Dioxane	160	ug/Kg	1.0	U	U	Yes	
Trichloroethene	8.0	ug/Kg	1.0	U	U	Yes	
Methylcyclohexa ne	8.0	ug/Kg	1.0	U	U	Yes	
1,2-Dichloropropane	8.0	ug/Kg	1.0	U	U	Yes	
Bromodichlorom	8.0	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
ethane	8.0	ug/Kg	1.0	U	U	Yes	
cis-1,3-Dichloropropene	8.0	ug/Kg	1.0	U	U	Yes	
4-Methyl-2-pentanone	16	ug/Kg	1.0	U	U	Yes	
Toluene	8.0	ug/Kg	1.0	U	U	Yes	
trans-1,3-Dichloropropene	8.0	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloroethane	8.0	ug/Kg	1.0	U	U	Yes	
Tetrachloroethene	8.0	ug/Kg	1.0	U	U	Yes	
2-Hexanone	16	ug/Kg	1.0	U	U	Yes	
Dibromochloromethane	8.0	ug/Kg	1.0	U	U	Yes	
1,2-Dibromoethane	8.0	ug/Kg	1.0	U	U	Yes	
Chlorobenzene	8.0	ug/Kg	1.0	U	U	Yes	
Ethylbenzene	8.0	ug/Kg	1.0	U	U	Yes	
o-Xylene	8.0	ug/Kg	1.0	U	U	Yes	
m,p-Xylene	8.0	ug/Kg	1.0	U	U	Yes	
Styrene	8.0	ug/Kg	1.0	U	U	Yes	
Bromoform	8.0	ug/Kg	1.0	U	U	Yes	
Isopropylbenzene	8.0	ug/Kg	1.0	U	U	Yes	
1,1,2,2-Tetrachloroethane	8.0	ug/Kg	1.0	U	U	Yes	
1,3-Dichlorobenzene	8.0	ug/Kg	1.0	U	U	Yes	
1,4-Dichlorobenzene	8.0	ug/Kg	1.0	U	U	Yes	
1,2-Dichlorobenzene	8.0	ug/Kg	1.0	U	U	Yes	
1,2-Dibromo-3-chloropropane	8.0	ug/Kg	1.0	U	U	Yes	
1,2,4-Trichlorobenzene	8.0	ug/Kg	1.0	U	U	Yes	
1,2,3-Trichlorobenzene	8.0	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA5	Lab Code: MITKEM
Sample Number: E0AB4	Method: BNA	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD08-(6-12)-072413	pH: 7.9	Sample Date: 07/24/2013	Sample Time: 15:05:00
% Moisture : 17.76000		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Benzaldehyde	200	ug/Kg	1.0	U	U	Yes	
Phenol	200	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethyl)ether	200	ug/Kg	1.0	U	U	Yes	
2-Chlorophenol	200	ug/Kg	1.0	U	U	Yes	
2-Methylphenol	200	ug/Kg	1.0	U	U	Yes	
2,2'-Oxybis(1-chloropropane)	200	ug/Kg	1.0	U	U	Yes	
Acetophenone	200	ug/Kg	1.0	U	U	Yes	
4-Methylphenol	200	ug/Kg	1.0	U	U	Yes	
N-Nitroso-di-n-propylamine	200	ug/Kg	1.0	U	U	Yes	
Hexachloroethane	200	ug/Kg	1.0	U	U	Yes	
Nitrobenzene	200	ug/Kg	1.0	U	U	Yes	
Isophorone	200	ug/Kg	1.0	U	U	Yes	
2-Nitrophenol	200	ug/Kg	1.0	U	U	Yes	
2,4-Dimethylphenol	200	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethoxy)methane	200	ug/Kg	1.0	U	U	Yes	
2,4-Dichlorophenol	200	ug/Kg	1.0	U	U	Yes	
Naphthalene	200	ug/Kg	1.0	U	U	Yes	
4-Chloroaniline	200	ug/Kg	1.0	U	U	Yes	
Hexachlorobutadiene	200	ug/Kg	1.0	U	U	Yes	
Caprolactam	200	ug/Kg	1.0	U	U	Yes	
4-Chloro-3-methylphenol	200	ug/Kg	1.0	U	U	Yes	
2-Methylnaphthalene	200	ug/Kg	1.0	U	U	Yes	
Hexachlorocyclopentadiene	200	ug/Kg	1.0	U	U	Yes	
2,4,6-Trichlorophenol	200	ug/Kg	1.0	U	U	Yes	
2,4,5-Trichlorophenol	200	ug/Kg	1.0	U	U	Yes	
1,1'-Biphenyl	200	ug/Kg	1.0	U	U	Yes	
2-Chloronaphthalene	200	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
2-Nitroaniline	400	ug/Kg	1.0	U	U	Yes	
Dimethylphthalate	200	ug/Kg	1.0	U	U	Yes	
2,6-Dinitrotoluene	200	ug/Kg	1.0	U	U	Yes	
Acenaphthylene	200	ug/Kg	1.0	U	U	Yes	
3-Nitroaniline	400	ug/Kg	1.0	U	U	Yes	
Acenaphthene	200	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrophenol	400	ug/Kg	1.0	U	U	Yes	
4-Nitrophenol	400	ug/Kg	1.0	U	U	Yes	
Dibenzofuran	200	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrotoluene	200	ug/Kg	1.0	U	U	Yes	
Diethylphthalate	200	ug/Kg	1.0	U	U	Yes	
Fluorene	200	ug/Kg	1.0	U	U	Yes	
4-Chlorophenyl-phenylether	200	ug/Kg	1.0	U	U	Yes	
4-Nitroaniline	400	ug/Kg	1.0	U	U	Yes	
4,6-Dinitro-2-methylphenol	400	ug/Kg	1.0	U	U	Yes	
N-Nitrosodiphenylamine	200	ug/Kg	1.0	U	U	Yes	
1,2,4,5-Tetrachlorobenzene	200	ug/Kg	1.0	U	U	Yes	
4-Bromophenyl-phenylether	200	ug/Kg	1.0	U	U	Yes	
Hexachlorobenzene	200	ug/Kg	1.0	U	U	Yes	
Atrazine	200	ug/Kg	1.0	U	U	Yes	
Pentachlorophenol	400	ug/Kg	1.0	U	U	Yes	
Phenanthrene	200	ug/Kg	1.0	U	U	Yes	
Anthracene	200	ug/Kg	1.0	U	U	Yes	
Carbazole	200	ug/Kg	1.0	U	U	Yes	
Di-n-butylphthalate	200	ug/Kg	1.0	U	U	Yes	
Fluoranthene	200	ug/Kg	1.0	U	U	Yes	
Pyrene	200	ug/Kg	1.0	U	U	Yes	
Butylbenzylphthalate	200	ug/Kg	1.0	U	U	Yes	
3,3'-Dichlorobenzidine	200	ug/Kg	1.0	U	U	Yes	
Benzo(a)anthracene	200	ug/Kg	1.0	U	U	Yes	
Chrysene	200	ug/Kg	1.0	U	U	Yes	
Bis(2-ethylhexyl)	200	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
phthalate	200	ug/Kg	1.0	U	U	Yes	
Di-n-octylphthalate	200	ug/Kg	1.0	U	U	Yes	
Benzo(b)fluoranthene	200	ug/Kg	1.0	U	U	Yes	
Benzo(k)fluoranthene	200	ug/Kg	1.0	U	U	Yes	
Benzo(a)pyrene	200	ug/Kg	1.0	U	U	Yes	
Indeno(1,2,3-cd)pyrene	200	ug/Kg	1.0	U	U	Yes	
Dibenzo(a,h)anthracene	200	ug/Kg	1.0	U	U	Yes	
Benzo(g,h,i)perylene	200	ug/Kg	1.0	U	U	Yes	
2,3,4,6-Tetrachlorophenol	200	ug/Kg	1.0	U	U	Yes	
13-Docosenamide, (Z)-	140	ug/Kg	1.0	NJ	NJ	Yes	
Phenol, 4,4'-(1-methylethylidene)bis-	290	ug/Kg	1.0	NJ	NJ	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA5	Lab Code: MITKEM

Sample Number:	E0AB5	Method:	VOA_Low_Med	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD07-(0-6)-072413	pH:	7.0	Sample Date:	07/24/2013	Sample Time:	15:45:00
% Moisture :	22.75748			% Solids :			

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	8.1	ug/Kg	1.0	U	U	Yes	
Chloromethane	8.1	ug/Kg	1.0	U	U	Yes	
Vinyl chloride	8.1	ug/Kg	1.0	U	U	Yes	
Bromomethane	8.1	ug/Kg	1.0	U	U	Yes	
Chloroethane	8.1	ug/Kg	1.0	U	U	Yes	
Trichlorofluorom ethane	8.1	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethene	8.1	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloro-1,2,2-trifluoroethane	8.1	ug/Kg	1.0	U	U	Yes	
Acetone	16	ug/Kg	1.0	U	U	Yes	
Carbon disulfide	8.1	ug/Kg	1.0	U	U	Yes	
Methyl acetate	8.1	ug/Kg	1.0	U	U	Yes	
Methylene chloride	8.1	ug/Kg	1.0	U	U	Yes	
trans-1,2-Dichloroethene	8.1	ug/Kg	1.0	U	U	Yes	
Methyl tert-butyl ether	8.1	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethane	8.1	ug/Kg	1.0	U	U	Yes	
cis-1,2-Dichloroethene	8.1	ug/Kg	1.0	U	U	Yes	
2-Butanone	16	ug/Kg	1.0	U	U	Yes	
Bromochloromet hane	8.1	ug/Kg	1.0	U	U	Yes	
Chloroform	8.1	ug/Kg	1.0	U	U	Yes	
1,1,1-Trichloroethane	8.1	ug/Kg	1.0	U	U	Yes	
Cyclohexane	8.1	ug/Kg	1.0	U	U	Yes	
Carbon tetrachloride	8.1	ug/Kg	1.0	U	U	Yes	
Benzene	8.1	ug/Kg	1.0	U	U	Yes	
1,2-Dichloroethane	8.1	ug/Kg	1.0	U	U	Yes	
1,4-Dioxane	160	ug/Kg	1.0	U	U	Yes	
Trichloroethene	8.1	ug/Kg	1.0	U	U	Yes	
Methylcyclohexa ne	8.1	ug/Kg	1.0	U	U	Yes	
1,2-Dichloropropane	8.1	ug/Kg	1.0	U	U	Yes	
Bromodichlorom	8.1	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
ethane	8.1	ug/Kg	1.0	U	U	Yes	
cis-1,3-Dichloropropene	8.1	ug/Kg	1.0	U	U	Yes	
4-Methyl-2-pentanone	16	ug/Kg	1.0	U	U	Yes	
Toluene	8.1	ug/Kg	1.0	U	U	Yes	
trans-1,3-Dichloropropene	8.1	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloroethane	8.1	ug/Kg	1.0	U	U	Yes	
Tetrachloroethene	8.1	ug/Kg	1.0	U	U	Yes	
2-Hexanone	16	ug/Kg	1.0	U	U	Yes	
Dibromochloromethane	8.1	ug/Kg	1.0	U	U	Yes	
1,2-Dibromoethane	8.1	ug/Kg	1.0	U	U	Yes	
Chlorobenzene	8.1	ug/Kg	1.0	U	U	Yes	
Ethylbenzene	8.1	ug/Kg	1.0	U	U	Yes	
o-Xylene	8.1	ug/Kg	1.0	U	U	Yes	
m,p-Xylene	8.1	ug/Kg	1.0	U	U	Yes	
Styrene	8.1	ug/Kg	1.0	U	U	Yes	
Bromoform	8.1	ug/Kg	1.0	U	U	Yes	
Isopropylbenzene	8.1	ug/Kg	1.0	U	U	Yes	
1,1,2,2-Tetrachloroethane	8.1	ug/Kg	1.0	U	U	Yes	
1,3-Dichlorobenzene	8.1	ug/Kg	1.0	U	U	Yes	
1,4-Dichlorobenzene	8.1	ug/Kg	1.0	U	U	Yes	
1,2-Dichlorobenzene	8.1	ug/Kg	1.0	U	U	Yes	
1,2-Dibromo-3-chloropropane	8.1	ug/Kg	1.0	U	U	Yes	
1,2,4-Trichlorobenzene	8.1	ug/Kg	1.0	U	U	Yes	
1,2,3-Trichlorobenzene	8.1	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA5	Lab Code: MITKEM
Sample Number: E0AB5	Method: BNA	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD07-(0-6)-072413	pH: 7.2	Sample Date: 07/24/2013	Sample Time: 15:45:00
% Moisture : 22.75748		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Benzaldehyde	220	ug/Kg	1.0	U	U	Yes	
Phenol	220	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethyl)ether	220	ug/Kg	1.0	U	U	Yes	
2-Chlorophenol	220	ug/Kg	1.0	U	U	Yes	
2-Methylphenol	220	ug/Kg	1.0	U	U	Yes	
2,2'-Oxybis(1-chloropropane)	220	ug/Kg	1.0	U	U	Yes	
Acetophenone	220	ug/Kg	1.0	U	U	Yes	
4-Methylphenol	220	ug/Kg	1.0	U	U	Yes	
N-Nitroso-di-n-propylamine	220	ug/Kg	1.0	U	U	Yes	
Hexachloroethane	220	ug/Kg	1.0	U	U	Yes	
Nitrobenzene	220	ug/Kg	1.0	U	U	Yes	
Isophorone	220	ug/Kg	1.0	U	U	Yes	
2-Nitrophenol	220	ug/Kg	1.0	U	U	Yes	
2,4-Dimethylphenol	220	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethoxy)methane	220	ug/Kg	1.0	U	U	Yes	
2,4-Dichlorophenol	220	ug/Kg	1.0	U	U	Yes	
Naphthalene	220	ug/Kg	1.0	U	U	Yes	
4-Chloroaniline	220	ug/Kg	1.0	U	U	Yes	
Hexachlorobutadiene	220	ug/Kg	1.0	U	U	Yes	
Caprolactam	220	ug/Kg	1.0	U	U	Yes	
4-Chloro-3-methylphenol	220	ug/Kg	1.0	U	U	Yes	
2-Methylnaphthalene	220	ug/Kg	1.0	U	U	Yes	
Hexachlorocyclopentadiene	220	ug/Kg	1.0	U	U	Yes	
2,4,6-Trichlorophenol	220	ug/Kg	1.0	U	U	Yes	
2,4,5-Trichlorophenol	220	ug/Kg	1.0	U	U	Yes	
1,1'-Biphenyl	220	ug/Kg	1.0	U	U	Yes	
2-Chloronaphthalene	220	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
2-Nitroaniline	420	ug/Kg	1.0	U	U	Yes	
Dimethylphthalate	220	ug/Kg	1.0	U	U	Yes	
2,6-Dinitrotoluene	220	ug/Kg	1.0	U	U	Yes	
Acenaphthylene	220	ug/Kg	1.0	U	U	Yes	
3-Nitroaniline	420	ug/Kg	1.0	U	U	Yes	
Acenaphthene	220	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrophenol	420	ug/Kg	1.0	U	U	Yes	
4-Nitrophenol	420	ug/Kg	1.0	U	U	Yes	
Dibenzofuran	220	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrotoluene	220	ug/Kg	1.0	U	U	Yes	
Diethylphthalate	220	ug/Kg	1.0	U	U	Yes	
Fluorene	220	ug/Kg	1.0	U	U	Yes	
4-Chlorophenyl-phenylether	220	ug/Kg	1.0	U	U	Yes	
4-Nitroaniline	420	ug/Kg	1.0	U	U	Yes	
4,6-Dinitro-2-methylphenol	420	ug/Kg	1.0	U	U	Yes	
N-Nitrosodiphenylamine	220	ug/Kg	1.0	U	U	Yes	
1,2,4,5-Tetrachlorobenzene	220	ug/Kg	1.0	U	U	Yes	
4-Bromophenyl-phenylether	220	ug/Kg	1.0	U	U	Yes	
Hexachlorobenzene	220	ug/Kg	1.0	U	U	Yes	
Atrazine	220	ug/Kg	1.0	U	U	Yes	
Pentachlorophenol	420	ug/Kg	1.0	U	U	Yes	
Phenanthrene	220	ug/Kg	1.0	U	U	Yes	
Anthracene	220	ug/Kg	1.0	U	U	Yes	
Carbazole	220	ug/Kg	1.0	U	U	Yes	
Di-n-butylphthalate	220	ug/Kg	1.0	U	U	Yes	
Fluoranthene	220	ug/Kg	1.0	U	UJ	Yes	
Pyrene	220	ug/Kg	1.0	U	UJ	Yes	
Butylbenzylphthalate	43	ug/Kg	1.0	J	J	Yes	
3,3'-Dichlorobenzidine	220	ug/Kg	1.0	U	U	Yes	
Benzo(a)anthracene	220	ug/Kg	1.0	U	UJ	Yes	
Chrysene	220	ug/Kg	1.0	U	UJ	Yes	
Bis(2-ethylhexyl)	47	ug/Kg	1.0	J	J	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
phthalate	47	ug/Kg	1.0	J	J	Yes	
Di-n-octylphthalate	220	ug/Kg	1.0	U	U	Yes	
Benzo(b)fluoranthene	220	ug/Kg	1.0	U	U	Yes	
Benzo(k)fluoranthene	220	ug/Kg	1.0	U	U	Yes	
Benzo(a)pyrene	220	ug/Kg	1.0	U	U	Yes	
Indeno(1,2,3-cd)pyrene	220	ug/Kg	1.0	U	U	Yes	
Dibenzo(a,h)anthracene	220	ug/Kg	1.0	U	U	Yes	
Benzo(g,h,i)perylene	220	ug/Kg	1.0	U	U	Yes	
2,3,4,6-Tetrachlorophenol	220	ug/Kg	1.0	U	U	Yes	
13-Docosenamide, (Z)-	230	ug/Kg	1.0	NJ	NJ	Yes	
Phenol, 4,4'-(1-methylethylidene)bis-	170	ug/Kg	1.0	NJ	NJ	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA5	Lab Code: MITKEM

Sample Number:	E0AB6	Method:	VOA_Low_Med	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	CC-SD07-(6-12)-072413	pH:	7.0	Sample Date:	07/24/2013	Sample Time:	15:50:00
% Moisture :	36.01236			% Solids :			

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	7.5	ug/Kg	1.0	U	U	Yes	
Chloromethane	7.5	ug/Kg	1.0	U	U	Yes	
Vinyl chloride	7.5	ug/Kg	1.0	U	U	Yes	
Bromomethane	7.5	ug/Kg	1.0	U	U	Yes	
Chloroethane	7.5	ug/Kg	1.0	U	U	Yes	
Trichlorofluorom ethane	7.5	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethene	7.5	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloro-1,2,2-trifluoroethane	7.5	ug/Kg	1.0	U	U	Yes	
Acetone	15	ug/Kg	1.0	U	U	Yes	
Carbon disulfide	7.5	ug/Kg	1.0	U	U	Yes	
Methyl acetate	7.5	ug/Kg	1.0	U	U	Yes	
Methylene chloride	7.5	ug/Kg	1.0	U	U	Yes	
trans-1,2-Dichloroethene	7.5	ug/Kg	1.0	U	U	Yes	
Methyl tert-butyl ether	7.5	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethane	7.5	ug/Kg	1.0	U	U	Yes	
cis-1,2-Dichloroethene	7.5	ug/Kg	1.0	U	U	Yes	
2-Butanone	15	ug/Kg	1.0	U	U	Yes	
Bromochloromet hane	7.5	ug/Kg	1.0	U	U	Yes	
Chloroform	7.5	ug/Kg	1.0	U	U	Yes	
1,1,1-Trichloroethane	7.5	ug/Kg	1.0	U	U	Yes	
Cyclohexane	7.5	ug/Kg	1.0	U	U	Yes	
Carbon tetrachloride	7.5	ug/Kg	1.0	U	U	Yes	
Benzene	7.5	ug/Kg	1.0	U	U	Yes	
1,2-Dichloroethane	7.5	ug/Kg	1.0	U	U	Yes	
1,4-Dioxane	150	ug/Kg	1.0	U	U	Yes	
Trichloroethene	7.5	ug/Kg	1.0	U	U	Yes	
Methylcyclohexa ne	7.5	ug/Kg	1.0	U	U	Yes	
1,2-Dichloropropane	7.5	ug/Kg	1.0	U	U	Yes	
Bromodichlorom	7.5	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
ethane	7.5	ug/Kg	1.0	U	U	Yes	
cis-1,3-Dichloropropene	7.5	ug/Kg	1.0	U	U	Yes	
4-Methyl-2-pentanone	15	ug/Kg	1.0	U	U	Yes	
Toluene	7.5	ug/Kg	1.0	U	U	Yes	
trans-1,3-Dichloropropene	7.5	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloroethane	7.5	ug/Kg	1.0	U	U	Yes	
Tetrachloroethene	7.5	ug/Kg	1.0	U	U	Yes	
2-Hexanone	15	ug/Kg	1.0	U	U	Yes	
Dibromochloromethane	7.5	ug/Kg	1.0	U	U	Yes	
1,2-Dibromoethane	7.5	ug/Kg	1.0	U	U	Yes	
Chlorobenzene	7.5	ug/Kg	1.0	U	U	Yes	
Ethylbenzene	7.5	ug/Kg	1.0	U	U	Yes	
o-Xylene	7.5	ug/Kg	1.0	U	U	Yes	
m,p-Xylene	7.5	ug/Kg	1.0	U	U	Yes	
Styrene	7.5	ug/Kg	1.0	U	U	Yes	
Bromoform	7.5	ug/Kg	1.0	U	U	Yes	
Isopropylbenzene	7.5	ug/Kg	1.0	U	U	Yes	
1,1,2,2-Tetrachloroethane	7.5	ug/Kg	1.0	U	U	Yes	
1,3-Dichlorobenzene	7.5	ug/Kg	1.0	U	U	Yes	
1,4-Dichlorobenzene	7.5	ug/Kg	1.0	U	U	Yes	
1,2-Dichlorobenzene	7.5	ug/Kg	1.0	U	U	Yes	
1,2-Dibromo-3-chloropropane	7.5	ug/Kg	1.0	U	U	Yes	
1,2,4-Trichlorobenzene	7.5	ug/Kg	1.0	U	U	Yes	
1,2,3-Trichlorobenzene	7.5	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA5	Lab Code: MITKEM
Sample Number: E0AB6	Method: BNA	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD07-(6-12)-072413	pH: 7.3	Sample Date: 07/24/2013	Sample Time: 15:50:00
% Moisture : 36.01236		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Benzaldehyde	260	ug/Kg	1.0	U	U	Yes	
Phenol	260	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethyl)ether	260	ug/Kg	1.0	U	U	Yes	
2-Chlorophenol	260	ug/Kg	1.0	U	U	Yes	
2-Methylphenol	260	ug/Kg	1.0	U	U	Yes	
2,2'-Oxybis(1-chloropropane)	260	ug/Kg	1.0	U	U	Yes	
Acetophenone	260	ug/Kg	1.0	U	U	Yes	
4-Methylphenol	260	ug/Kg	1.0	U	U	Yes	
N-Nitroso-di-n-propylamine	260	ug/Kg	1.0	U	U	Yes	
Hexachloroethane	260	ug/Kg	1.0	U	U	Yes	
Nitrobenzene	260	ug/Kg	1.0	U	U	Yes	
Isophorone	260	ug/Kg	1.0	U	U	Yes	
2-Nitrophenol	260	ug/Kg	1.0	U	U	Yes	
2,4-Dimethylphenol	260	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethoxy)methane	260	ug/Kg	1.0	U	U	Yes	
2,4-Dichlorophenol	260	ug/Kg	1.0	U	U	Yes	
Naphthalene	260	ug/Kg	1.0	U	U	Yes	
4-Chloroaniline	260	ug/Kg	1.0	U	U	Yes	
Hexachlorobutadiene	260	ug/Kg	1.0	U	U	Yes	
Caprolactam	260	ug/Kg	1.0	U	U	Yes	
4-Chloro-3-methylphenol	260	ug/Kg	1.0	U	U	Yes	
2-Methylnaphthalene	260	ug/Kg	1.0	U	U	Yes	
Hexachlorocyclopentadiene	260	ug/Kg	1.0	U	U	Yes	
2,4,6-Trichlorophenol	260	ug/Kg	1.0	U	U	Yes	
2,4,5-Trichlorophenol	260	ug/Kg	1.0	U	U	Yes	
1,1'-Biphenyl	260	ug/Kg	1.0	U	U	Yes	
2-Chloronaphthalene	260	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
2-Nitroaniline	510	ug/Kg	1.0	U	U	Yes	
Dimethylphthalate	260	ug/Kg	1.0	U	U	Yes	
2,6-Dinitrotoluene	260	ug/Kg	1.0	U	U	Yes	
Acenaphthylene	260	ug/Kg	1.0	U	U	Yes	
3-Nitroaniline	510	ug/Kg	1.0	U	U	Yes	
Acenaphthene	260	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrophenol	510	ug/Kg	1.0	U	U	Yes	
4-Nitrophenol	510	ug/Kg	1.0	U	U	Yes	
Dibenzofuran	260	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrotoluene	260	ug/Kg	1.0	U	U	Yes	
Diethylphthalate	260	ug/Kg	1.0	U	U	Yes	
Fluorene	260	ug/Kg	1.0	U	U	Yes	
4-Chlorophenyl-phenylether	260	ug/Kg	1.0	U	U	Yes	
4-Nitroaniline	510	ug/Kg	1.0	U	U	Yes	
4,6-Dinitro-2-methylphenol	510	ug/Kg	1.0	U	U	Yes	
N-Nitrosodiphenylamine	260	ug/Kg	1.0	U	U	Yes	
1,2,4,5-Tetrachlorobenzene	260	ug/Kg	1.0	U	U	Yes	
4-Bromophenyl-phenylether	260	ug/Kg	1.0	U	U	Yes	
Hexachlorobenzene	260	ug/Kg	1.0	U	U	Yes	
Atrazine	260	ug/Kg	1.0	U	U	Yes	
Pentachlorophenol	510	ug/Kg	1.0	U	U	Yes	
Phenanthrene	260	ug/Kg	1.0	U	U	Yes	
Anthracene	260	ug/Kg	1.0	U	U	Yes	
Carbazole	260	ug/Kg	1.0	U	U	Yes	
Di-n-butylphthalate	260	ug/Kg	1.0	U	U	Yes	
Fluoranthene	260	ug/Kg	1.0	U	U	Yes	
Pyrene	260	ug/Kg	1.0	U	U	Yes	
Butylbenzylphthalate	58	ug/Kg	1.0	J	J	Yes	
3,3'-Dichlorobenzidine	260	ug/Kg	1.0	U	U	Yes	
Benzo(a)anthracene	260	ug/Kg	1.0	U	U	Yes	
Chrysene	260	ug/Kg	1.0	U	U	Yes	
Bis(2-ethylhexyl)	80	ug/Kg	1.0	J	J	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
phthalate	80	ug/Kg	1.0	J	J	Yes	
Di-n-octylphthalate	260	ug/Kg	1.0	U	U	Yes	
Benzo(b)fluoranthene	260	ug/Kg	1.0	U	U	Yes	
Benzo(k)fluoranthene	260	ug/Kg	1.0	U	U	Yes	
Benzo(a)pyrene	260	ug/Kg	1.0	U	U	Yes	
Indeno(1,2,3-cd)pyrene	260	ug/Kg	1.0	U	U	Yes	
Dibenzo(a,h)anthracene	260	ug/Kg	1.0	U	U	Yes	
Benzo(g,h,i)perylene	260	ug/Kg	1.0	U	U	Yes	
2,3,4,6-Tetrachlorophenol	260	ug/Kg	1.0	U	U	Yes	
Phenol, 4,4'-(1-methylethylidene)bis-	150	ug/Kg	1.0	NJ	NJ	Yes	
13-Docosenamide, (Z)-	410	ug/Kg	1.0	NJ	NJ	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA5	Lab Code: MITKEM
Sample Number: E0AB7	Method: VOA_Low_Med	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD09-(0-6)-072413	pH: 7.0	Sample Date: 07/24/2013	Sample Time: 16:20:00
% Moisture : 36.06557		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	8.9	ug/Kg	1.0	U	U	Yes	
Chloromethane	8.9	ug/Kg	1.0	U	U	Yes	
Vinyl chloride	8.9	ug/Kg	1.0	U	U	Yes	
Bromomethane	8.9	ug/Kg	1.0	U	U	Yes	
Chloroethane	8.9	ug/Kg	1.0	U	U	Yes	
Trichlorofluorom ethane	8.9	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethene	8.9	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloro-1,2,2-trifluoroethane	8.9	ug/Kg	1.0	U	U	Yes	
Acetone	18	ug/Kg	1.0	U	U	Yes	
Carbon disulfide	8.9	ug/Kg	1.0	U	U	Yes	
Methyl acetate	8.9	ug/Kg	1.0	U	U	Yes	
Methylene chloride	8.9	ug/Kg	1.0	U	U	Yes	
trans-1,2-Dichloroethene	8.9	ug/Kg	1.0	U	U	Yes	
Methyl tert-butyl ether	8.9	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethane	8.9	ug/Kg	1.0	U	U	Yes	
cis-1,2-Dichloroethene	8.9	ug/Kg	1.0	U	U	Yes	
2-Butanone	18	ug/Kg	1.0	U	U	Yes	
Bromochloromet hane	8.9	ug/Kg	1.0	U	U	Yes	
Chloroform	8.9	ug/Kg	1.0	U	U	Yes	
1,1,1-Trichloroethane	8.9	ug/Kg	1.0	U	U	Yes	
Cyclohexane	8.9	ug/Kg	1.0	U	U	Yes	
Carbon tetrachloride	8.9	ug/Kg	1.0	U	U	Yes	
Benzene	8.9	ug/Kg	1.0	U	U	Yes	
1,2-Dichloroethane	8.9	ug/Kg	1.0	U	U	Yes	
1,4-Dioxane	180	ug/Kg	1.0	U	U	Yes	
Trichloroethene	8.9	ug/Kg	1.0	U	U	Yes	
Methylcyclohexa ne	8.9	ug/Kg	1.0	U	U	Yes	
1,2-Dichloropropane	8.9	ug/Kg	1.0	U	U	Yes	
Bromodichlorom	8.9	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
ethane	8.9	ug/Kg	1.0	U	U	Yes	
cis-1,3-Dichloropropene	8.9	ug/Kg	1.0	U	U	Yes	
4-Methyl-2-pentanone	18	ug/Kg	1.0	U	U	Yes	
Toluene	8.9	ug/Kg	1.0	U	U	Yes	
trans-1,3-Dichloropropene	8.9	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloroethane	8.9	ug/Kg	1.0	U	U	Yes	
Tetrachloroethene	8.9	ug/Kg	1.0	U	U	Yes	
2-Hexanone	18	ug/Kg	1.0	U	U	Yes	
Dibromochloromethane	8.9	ug/Kg	1.0	U	U	Yes	
1,2-Dibromoethane	8.9	ug/Kg	1.0	U	U	Yes	
Chlorobenzene	8.9	ug/Kg	1.0	U	U	Yes	
Ethylbenzene	8.9	ug/Kg	1.0	U	U	Yes	
o-Xylene	8.9	ug/Kg	1.0	U	U	Yes	
m,p-Xylene	8.9	ug/Kg	1.0	U	U	Yes	
Styrene	8.9	ug/Kg	1.0	U	U	Yes	
Bromoform	8.9	ug/Kg	1.0	U	U	Yes	
Isopropylbenzene	8.9	ug/Kg	1.0	U	U	Yes	
1,1,2,2-Tetrachloroethane	8.9	ug/Kg	1.0	U	U	Yes	
1,3-Dichlorobenzene	8.9	ug/Kg	1.0	U	U	Yes	
1,4-Dichlorobenzene	8.9	ug/Kg	1.0	U	U	Yes	
1,2-Dichlorobenzene	8.9	ug/Kg	1.0	U	U	Yes	
1,2-Dibromo-3-chloropropane	8.9	ug/Kg	1.0	U	U	Yes	
1,2,4-Trichlorobenzene	8.9	ug/Kg	1.0	U	U	Yes	
1,2,3-Trichlorobenzene	8.9	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA5	Lab Code: MITKEM
Sample Number: E0AB7	Method: BNA	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD09-(0-6)-072413	pH: 7.1	Sample Date: 07/24/2013	Sample Time: 16:20:00
% Moisture : 36.06557		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Benzaldehyde	260	ug/Kg	1.0	U	U	Yes	
Phenol	260	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethyl)ether	260	ug/Kg	1.0	U	U	Yes	
2-Chlorophenol	260	ug/Kg	1.0	U	U	Yes	
2-Methylphenol	260	ug/Kg	1.0	U	U	Yes	
2,2'-Oxybis(1-chloropropane)	260	ug/Kg	1.0	U	U	Yes	
Acetophenone	260	ug/Kg	1.0	U	U	Yes	
4-Methylphenol	260	ug/Kg	1.0	U	U	Yes	
N-Nitroso-di-n-propylamine	260	ug/Kg	1.0	U	U	Yes	
Hexachloroethane	260	ug/Kg	1.0	U	U	Yes	
Nitrobenzene	260	ug/Kg	1.0	U	U	Yes	
Isophorone	260	ug/Kg	1.0	U	U	Yes	
2-Nitrophenol	260	ug/Kg	1.0	U	U	Yes	
2,4-Dimethylphenol	260	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethoxy)methane	260	ug/Kg	1.0	U	U	Yes	
2,4-Dichlorophenol	260	ug/Kg	1.0	U	U	Yes	
Naphthalene	260	ug/Kg	1.0	U	U	Yes	
4-Chloroaniline	260	ug/Kg	1.0	U	U	Yes	
Hexachlorobutadiene	260	ug/Kg	1.0	U	U	Yes	
Caprolactam	260	ug/Kg	1.0	U	U	Yes	
4-Chloro-3-methylphenol	260	ug/Kg	1.0	U	U	Yes	
2-Methylnaphthalene	260	ug/Kg	1.0	U	U	Yes	
Hexachlorocyclopentadiene	260	ug/Kg	1.0	U	U	Yes	
2,4,6-Trichlorophenol	260	ug/Kg	1.0	U	U	Yes	
2,4,5-Trichlorophenol	260	ug/Kg	1.0	U	U	Yes	
1,1'-Biphenyl	260	ug/Kg	1.0	U	U	Yes	
2-Chloronaphthalene	260	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
2-Nitroaniline	510	ug/Kg	1.0	U	U	Yes	
Dimethylphthalate	260	ug/Kg	1.0	U	U	Yes	
2,6-Dinitrotoluene	260	ug/Kg	1.0	U	U	Yes	
Acenaphthylene	260	ug/Kg	1.0	U	U	Yes	
3-Nitroaniline	510	ug/Kg	1.0	U	U	Yes	
Acenaphthene	260	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrophenol	510	ug/Kg	1.0	U	U	Yes	
4-Nitrophenol	510	ug/Kg	1.0	U	U	Yes	
Dibenzofuran	260	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrotoluene	260	ug/Kg	1.0	U	U	Yes	
Diethylphthalate	260	ug/Kg	1.0	U	U	Yes	
Fluorene	260	ug/Kg	1.0	U	U	Yes	
4-Chlorophenyl-phenylether	260	ug/Kg	1.0	U	U	Yes	
4-Nitroaniline	510	ug/Kg	1.0	U	U	Yes	
4,6-Dinitro-2-methylphenol	510	ug/Kg	1.0	U	U	Yes	
N-Nitrosodiphenylamine	260	ug/Kg	1.0	U	U	Yes	
1,2,4,5-Tetrachlorobenzene	260	ug/Kg	1.0	U	U	Yes	
4-Bromophenyl-phenylether	260	ug/Kg	1.0	U	U	Yes	
Hexachlorobenzene	260	ug/Kg	1.0	U	U	Yes	
Atrazine	260	ug/Kg	1.0	U	U	Yes	
Pentachlorophenol	510	ug/Kg	1.0	U	U	Yes	
Phenanthrene	260	ug/Kg	1.0	U	U	Yes	
Anthracene	260	ug/Kg	1.0	U	U	Yes	
Carbazole	260	ug/Kg	1.0	U	U	Yes	
Di-n-butylphthalate	260	ug/Kg	1.0	U	U	Yes	
Fluoranthene	260	ug/Kg	1.0	U	U	Yes	
Pyrene	260	ug/Kg	1.0	U	U	Yes	
Butylbenzylphthalate	72	ug/Kg	1.0	J	J	Yes	
3,3'-Dichlorobenzidine	260	ug/Kg	1.0	U	U	Yes	
Benzo(a)anthracene	260	ug/Kg	1.0	U	U	Yes	
Chrysene	260	ug/Kg	1.0	U	U	Yes	
Bis(2-ethylhexyl)	1500	ug/Kg	1.0			Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
phthalate	1500	ug/Kg	1.0			Yes	
Di-n-octylphthalate	260	ug/Kg	1.0	U	U	Yes	
Benzo(b)fluoranthene	260	ug/Kg	1.0	U	U	Yes	
Benzo(k)fluoranthene	260	ug/Kg	1.0	U	U	Yes	
Benzo(a)pyrene	260	ug/Kg	1.0	U	U	Yes	
Indeno(1,2,3-cd)pyrene	260	ug/Kg	1.0	U	U	Yes	
Dibenzo(a,h)anthracene	260	ug/Kg	1.0	U	U	Yes	
Benzo(g,h,i)perylene	260	ug/Kg	1.0	U	U	Yes	
2,3,4,6-Tetrachlorophenol	260	ug/Kg	1.0	U	U	Yes	
Hop-22(29)-en-3.beta.-ol	3400	ug/Kg	1.0	NJ	NJ	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA5	Lab Code: MITKEM
Sample Number: E0AB8	Method: BNA	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD09-(6-12)-072413	pH: 7.5	Sample Date: 07/24/2013	Sample Time: 16:25:00
% Moisture : 23.35423		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Benzaldehyde	220	ug/Kg	1.0	U	U	Yes	
Phenol	220	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethyl)ether	220	ug/Kg	1.0	U	U	Yes	
2-Chlorophenol	220	ug/Kg	1.0	U	U	Yes	
2-Methylphenol	220	ug/Kg	1.0	U	U	Yes	
2,2'-Oxybis(1-chloropropane)	220	ug/Kg	1.0	U	U	Yes	
Acetophenone	220	ug/Kg	1.0	U	U	Yes	
4-Methylphenol	220	ug/Kg	1.0	U	U	Yes	
N-Nitroso-di-n-propylamine	220	ug/Kg	1.0	U	U	Yes	
Hexachloroethane	220	ug/Kg	1.0	U	U	Yes	
Nitrobenzene	220	ug/Kg	1.0	U	U	Yes	
Isophorone	220	ug/Kg	1.0	U	U	Yes	
2-Nitrophenol	220	ug/Kg	1.0	U	U	Yes	
2,4-Dimethylphenol	220	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethoxy)methane	220	ug/Kg	1.0	U	U	Yes	
2,4-Dichlorophenol	220	ug/Kg	1.0	U	U	Yes	
Naphthalene	220	ug/Kg	1.0	U	U	Yes	
4-Chloroaniline	220	ug/Kg	1.0	U	U	Yes	
Hexachlorobutadiene	220	ug/Kg	1.0	U	U	Yes	
Caprolactam	220	ug/Kg	1.0	U	U	Yes	
4-Chloro-3-methylphenol	220	ug/Kg	1.0	U	U	Yes	
2-Methylnaphthalene	220	ug/Kg	1.0	U	U	Yes	
Hexachlorocyclopentadiene	220	ug/Kg	1.0	U	U	Yes	
2,4,6-Trichlorophenol	220	ug/Kg	1.0	U	U	Yes	
2,4,5-Trichlorophenol	220	ug/Kg	1.0	U	U	Yes	
1,1'-Biphenyl	220	ug/Kg	1.0	U	U	Yes	
2-Chloronaphthalene	220	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
2-Nitroaniline	420	ug/Kg	1.0	U	U	Yes	
Dimethylphthalate	220	ug/Kg	1.0	U	U	Yes	
2,6-Dinitrotoluene	220	ug/Kg	1.0	U	U	Yes	
Acenaphthylene	220	ug/Kg	1.0	U	U	Yes	
3-Nitroaniline	420	ug/Kg	1.0	U	U	Yes	
Acenaphthene	220	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrophenol	420	ug/Kg	1.0	U	U	Yes	
4-Nitrophenol	420	ug/Kg	1.0	U	U	Yes	
Dibenzofuran	220	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrotoluene	220	ug/Kg	1.0	U	U	Yes	
Diethylphthalate	220	ug/Kg	1.0	U	U	Yes	
Fluorene	220	ug/Kg	1.0	U	U	Yes	
4-Chlorophenyl-phenylether	220	ug/Kg	1.0	U	U	Yes	
4-Nitroaniline	420	ug/Kg	1.0	U	U	Yes	
4,6-Dinitro-2-methylphenol	420	ug/Kg	1.0	U	U	Yes	
N-Nitrosodiphenylamine	220	ug/Kg	1.0	U	U	Yes	
1,2,4,5-Tetrachlorobenzene	220	ug/Kg	1.0	U	U	Yes	
4-Bromophenyl-phenylether	220	ug/Kg	1.0	U	U	Yes	
Hexachlorobenzene	220	ug/Kg	1.0	U	U	Yes	
Atrazine	220	ug/Kg	1.0	U	U	Yes	
Pentachlorophenol	420	ug/Kg	1.0	U	U	Yes	
Phenanthrene	220	ug/Kg	1.0	U	U	Yes	
Anthracene	220	ug/Kg	1.0	U	U	Yes	
Carbazole	220	ug/Kg	1.0	U	U	Yes	
Di-n-butylphthalate	220	ug/Kg	1.0	U	U	Yes	
Fluoranthene	220	ug/Kg	1.0	U	UJ	Yes	
Pyrene	220	ug/Kg	1.0	U	UJ	Yes	
Butylbenzylphthalate	65	ug/Kg	1.0	J	J	Yes	
3,3'-Dichlorobenzidine	220	ug/Kg	1.0	U	U	Yes	
Benzo(a)anthracene	220	ug/Kg	1.0	U	UJ	Yes	
Chrysene	220	ug/Kg	1.0	U	UJ	Yes	
Bis(2-ethylhexyl)	73	ug/Kg	1.0	J	J	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
phthalate	73	ug/Kg	1.0	J	J	Yes	
Di-n-octylphthalate	220	ug/Kg	1.0	U	U	Yes	
Benzo(b)fluoranthene	220	ug/Kg	1.0	U	U	Yes	
Benzo(k)fluoranthene	220	ug/Kg	1.0	U	U	Yes	
Benzo(a)pyrene	220	ug/Kg	1.0	U	U	Yes	
Indeno(1,2,3-cd)pyrene	220	ug/Kg	1.0	U	U	Yes	
Dibenzo(a,h)anthracene	220	ug/Kg	1.0	U	U	Yes	
Benzo(g,h,i)perylene	220	ug/Kg	1.0	U	U	Yes	
2,3,4,6-Tetrachlorophenol	220	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA5	Lab Code: MITKEM
Sample Number: E0AB8	Method: VOA_Low_Med	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD09-(6-12)-072413	pH: 7.0	Sample Date: 07/24/2013	Sample Time: 16:25:00
% Moisture : 23.35423		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	7.8	ug/Kg	1.0	U	U	Yes	
Chloromethane	7.8	ug/Kg	1.0	U	U	Yes	
Vinyl chloride	7.8	ug/Kg	1.0	U	U	Yes	
Bromomethane	7.8	ug/Kg	1.0	U	U	Yes	
Chloroethane	7.8	ug/Kg	1.0	U	U	Yes	
Trichlorofluorom ethane	7.8	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethene	7.8	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloro-1,2,2-trifluoroethane	7.8	ug/Kg	1.0	U	U	Yes	
Acetone	16	ug/Kg	1.0	U	U	Yes	
Carbon disulfide	7.8	ug/Kg	1.0	U	U	Yes	
Methyl acetate	7.8	ug/Kg	1.0	U	U	Yes	
Methylene chloride	7.8	ug/Kg	1.0	U	U	Yes	
trans-1,2-Dichloroethene	7.8	ug/Kg	1.0	U	U	Yes	
Methyl tert-butyl ether	7.8	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethane	7.8	ug/Kg	1.0	U	U	Yes	
cis-1,2-Dichloroethene	7.8	ug/Kg	1.0	U	U	Yes	
2-Butanone	16	ug/Kg	1.0	U	U	Yes	
Bromochloromet hane	7.8	ug/Kg	1.0	U	U	Yes	
Chloroform	7.8	ug/Kg	1.0	U	U	Yes	
1,1,1-Trichloroethane	7.8	ug/Kg	1.0	U	U	Yes	
Cyclohexane	7.8	ug/Kg	1.0	U	U	Yes	
Carbon tetrachloride	7.8	ug/Kg	1.0	U	U	Yes	
Benzene	7.8	ug/Kg	1.0	U	U	Yes	
1,2-Dichloroethane	7.8	ug/Kg	1.0	U	U	Yes	
1,4-Dioxane	160	ug/Kg	1.0	U	U	Yes	
Trichloroethene	7.8	ug/Kg	1.0	U	U	Yes	
Methylcyclohexa ne	7.8	ug/Kg	1.0	U	U	Yes	
1,2-Dichloropropane	7.8	ug/Kg	1.0	U	U	Yes	
Bromodichlorom	7.8	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
ethane	7.8	ug/Kg	1.0	U	U	Yes	
cis-1,3-Dichloropropene	7.8	ug/Kg	1.0	U	U	Yes	
4-Methyl-2-pentanone	16	ug/Kg	1.0	U	U	Yes	
Toluene	7.8	ug/Kg	1.0	U	U	Yes	
trans-1,3-Dichloropropene	7.8	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloroethane	7.8	ug/Kg	1.0	U	U	Yes	
Tetrachloroethene	7.8	ug/Kg	1.0	U	U	Yes	
2-Hexanone	16	ug/Kg	1.0	U	U	Yes	
Dibromochloromethane	7.8	ug/Kg	1.0	U	U	Yes	
1,2-Dibromoethane	7.8	ug/Kg	1.0	U	U	Yes	
Chlorobenzene	7.8	ug/Kg	1.0	U	U	Yes	
Ethylbenzene	7.8	ug/Kg	1.0	U	U	Yes	
o-Xylene	7.8	ug/Kg	1.0	U	U	Yes	
m,p-Xylene	7.8	ug/Kg	1.0	U	U	Yes	
Styrene	7.8	ug/Kg	1.0	U	U	Yes	
Bromoform	7.8	ug/Kg	1.0	U	U	Yes	
Isopropylbenzene	7.8	ug/Kg	1.0	U	U	Yes	
1,1,2,2-Tetrachloroethane	7.8	ug/Kg	1.0	U	U	Yes	
1,3-Dichlorobenzene	7.8	ug/Kg	1.0	U	U	Yes	
1,4-Dichlorobenzene	7.8	ug/Kg	1.0	U	U	Yes	
1,2-Dichlorobenzene	7.8	ug/Kg	1.0	U	U	Yes	
1,2-Dibromo-3-chloropropane	7.8	ug/Kg	1.0	U	U	Yes	
1,2,4-Trichlorobenzene	7.8	ug/Kg	1.0	U	U	Yes	
1,2,3-Trichlorobenzene	7.8	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA5	Lab Code: MITKEM
Sample Number: E0AB9	Method: VOA_Low_Med	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD06-(0-6)-072413	pH: 7.0	Sample Date: 07/24/2013	Sample Time: 17:00:00
% Moisture : 26.25000		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	6.4	ug/Kg	1.0	U	U	Yes	
Chloromethane	6.4	ug/Kg	1.0	U	U	Yes	
Vinyl chloride	6.4	ug/Kg	1.0	U	U	Yes	
Bromomethane	6.4	ug/Kg	1.0	U	U	Yes	
Chloroethane	6.4	ug/Kg	1.0	U	U	Yes	
Trichlorofluorom ethane	6.4	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethene	6.4	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloro-1,2,2-trifluoroethane	6.4	ug/Kg	1.0	U	U	Yes	
Acetone	13	ug/Kg	1.0	U	U	Yes	
Carbon disulfide	6.4	ug/Kg	1.0	U	U	Yes	
Methyl acetate	6.4	ug/Kg	1.0	U	U	Yes	
Methylene chloride	6.4	ug/Kg	1.0	U	U	Yes	
trans-1,2-Dichloroethene	6.4	ug/Kg	1.0	U	U	Yes	
Methyl tert-butyl ether	6.4	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethane	6.4	ug/Kg	1.0	U	U	Yes	
cis-1,2-Dichloroethene	6.4	ug/Kg	1.0	U	U	Yes	
2-Butanone	13	ug/Kg	1.0	U	U	Yes	
Bromochloromet hane	6.4	ug/Kg	1.0	U	U	Yes	
Chloroform	6.4	ug/Kg	1.0	U	U	Yes	
1,1,1-Trichloroethane	6.4	ug/Kg	1.0	U	U	Yes	
Cyclohexane	6.4	ug/Kg	1.0	U	U	Yes	
Carbon tetrachloride	6.4	ug/Kg	1.0	U	U	Yes	
Benzene	6.4	ug/Kg	1.0	U	U	Yes	
1,2-Dichloroethane	6.4	ug/Kg	1.0	U	U	Yes	
1,4-Dioxane	130	ug/Kg	1.0	U	U	Yes	
Trichloroethene	6.4	ug/Kg	1.0	U	U	Yes	
Methylcyclohexa ne	6.4	ug/Kg	1.0	U	U	Yes	
1,2-Dichloropropane	6.4	ug/Kg	1.0	U	U	Yes	
Bromodichlorom	6.4	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
ethane	6.4	ug/Kg	1.0	U	U	Yes	
cis-1,3-Dichloropropene	6.4	ug/Kg	1.0	U	U	Yes	
4-Methyl-2-pentanone	13	ug/Kg	1.0	U	U	Yes	
Toluene	6.4	ug/Kg	1.0	U	U	Yes	
trans-1,3-Dichloropropene	6.4	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloroethane	6.4	ug/Kg	1.0	U	U	Yes	
Tetrachloroethene	6.4	ug/Kg	1.0	U	U	Yes	
2-Hexanone	13	ug/Kg	1.0	U	U	Yes	
Dibromochloromethane	6.4	ug/Kg	1.0	U	U	Yes	
1,2-Dibromoethane	6.4	ug/Kg	1.0	U	U	Yes	
Chlorobenzene	6.4	ug/Kg	1.0	U	U	Yes	
Ethylbenzene	6.4	ug/Kg	1.0	U	U	Yes	
o-Xylene	6.4	ug/Kg	1.0	U	U	Yes	
m,p-Xylene	6.4	ug/Kg	1.0	U	U	Yes	
Styrene	6.4	ug/Kg	1.0	U	U	Yes	
Bromoform	6.4	ug/Kg	1.0	U	U	Yes	
Isopropylbenzene	6.4	ug/Kg	1.0	U	U	Yes	
1,1,2,2-Tetrachloroethane	6.4	ug/Kg	1.0	U	U	Yes	
1,3-Dichlorobenzene	6.4	ug/Kg	1.0	U	U	Yes	
1,4-Dichlorobenzene	6.4	ug/Kg	1.0	U	U	Yes	
1,2-Dichlorobenzene	6.4	ug/Kg	1.0	U	U	Yes	
1,2-Dibromo-3-chloropropane	6.4	ug/Kg	1.0	U	U	Yes	
1,2,4-Trichlorobenzene	6.4	ug/Kg	1.0	U	U	Yes	
1,2,3-Trichlorobenzene	6.4	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA5	Lab Code: MITKEM
Sample Number: E0AB9	Method: BNA	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD06-(0-6)-072413	pH: 7.5	Sample Date: 07/24/2013	Sample Time: 17:00:00
% Moisture : 26.25000		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Benzaldehyde	230	ug/Kg	1.0	U	U	Yes	
Phenol	230	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethyl)ether	230	ug/Kg	1.0	U	U	Yes	
2-Chlorophenol	230	ug/Kg	1.0	U	U	Yes	
2-Methylphenol	230	ug/Kg	1.0	U	U	Yes	
2,2'-Oxybis(1-chloropropane)	230	ug/Kg	1.0	U	U	Yes	
Acetophenone	230	ug/Kg	1.0	U	U	Yes	
4-Methylphenol	230	ug/Kg	1.0	U	U	Yes	
N-Nitroso-di-n-propylamine	230	ug/Kg	1.0	U	U	Yes	
Hexachloroethane	230	ug/Kg	1.0	U	U	Yes	
Nitrobenzene	230	ug/Kg	1.0	U	U	Yes	
Isophorone	230	ug/Kg	1.0	U	U	Yes	
2-Nitrophenol	230	ug/Kg	1.0	U	U	Yes	
2,4-Dimethylphenol	230	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethoxy)methane	230	ug/Kg	1.0	U	U	Yes	
2,4-Dichlorophenol	230	ug/Kg	1.0	U	U	Yes	
Naphthalene	230	ug/Kg	1.0	U	U	Yes	
4-Chloroaniline	230	ug/Kg	1.0	U	U	Yes	
Hexachlorobutadiene	230	ug/Kg	1.0	U	U	Yes	
Caprolactam	230	ug/Kg	1.0	U	U	Yes	
4-Chloro-3-methylphenol	230	ug/Kg	1.0	U	U	Yes	
2-Methylnaphthalene	230	ug/Kg	1.0	U	U	Yes	
Hexachlorocyclopentadiene	230	ug/Kg	1.0	U	U	Yes	
2,4,6-Trichlorophenol	230	ug/Kg	1.0	U	U	Yes	
2,4,5-Trichlorophenol	230	ug/Kg	1.0	U	U	Yes	
1,1'-Biphenyl	230	ug/Kg	1.0	U	U	Yes	
2-Chloronaphthalene	230	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
2-Nitroaniline	440	ug/Kg	1.0	U	U	Yes	
Dimethylphthalate	230	ug/Kg	1.0	U	U	Yes	
2,6-Dinitrotoluene	230	ug/Kg	1.0	U	U	Yes	
Acenaphthylene	230	ug/Kg	1.0	U	U	Yes	
3-Nitroaniline	440	ug/Kg	1.0	U	U	Yes	
Acenaphthene	230	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrophenol	440	ug/Kg	1.0	U	U	Yes	
4-Nitrophenol	440	ug/Kg	1.0	U	U	Yes	
Dibenzofuran	230	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrotoluene	230	ug/Kg	1.0	U	U	Yes	
Diethylphthalate	230	ug/Kg	1.0	U	U	Yes	
Fluorene	230	ug/Kg	1.0	U	U	Yes	
4-Chlorophenyl-phenylether	230	ug/Kg	1.0	U	U	Yes	
4-Nitroaniline	440	ug/Kg	1.0	U	U	Yes	
4,6-Dinitro-2-methylphenol	440	ug/Kg	1.0	U	U	Yes	
N-Nitrosodiphenylamine	230	ug/Kg	1.0	U	U	Yes	
1,2,4,5-Tetrachlorobenzene	230	ug/Kg	1.0	U	U	Yes	
4-Bromophenyl-phenylether	230	ug/Kg	1.0	U	U	Yes	
Hexachlorobenzene	230	ug/Kg	1.0	U	U	Yes	
Atrazine	230	ug/Kg	1.0	U	U	Yes	
Pentachlorophenol	440	ug/Kg	1.0	U	U	Yes	
Phenanthrene	230	ug/Kg	1.0	U	U	Yes	
Anthracene	230	ug/Kg	1.0	U	U	Yes	
Carbazole	230	ug/Kg	1.0	U	U	Yes	
Di-n-butylphthalate	230	ug/Kg	1.0	U	U	Yes	
Fluoranthene	230	ug/Kg	1.0	U	UJ	Yes	
Pyrene	230	ug/Kg	1.0	U	UJ	Yes	
Butylbenzylphthalate	50	ug/Kg	1.0	J	J	Yes	
3,3'-Dichlorobenzidine	230	ug/Kg	1.0	U	U	Yes	
Benzo(a)anthracene	230	ug/Kg	1.0	U	UJ	Yes	
Chrysene	230	ug/Kg	1.0	U	UJ	Yes	
Bis(2-ethylhexyl)	84	ug/Kg	1.0	J	J	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
phthalate	84	ug/Kg	1.0	J	J	Yes	
Di-n-octylphthalate	230	ug/Kg	1.0	U	U	Yes	
Benzo(b)fluoranthene	230	ug/Kg	1.0	U	U	Yes	
Benzo(k)fluoranthene	230	ug/Kg	1.0	U	U	Yes	
Benzo(a)pyrene	230	ug/Kg	1.0	U	U	Yes	
Indeno(1,2,3-cd)pyrene	230	ug/Kg	1.0	U	U	Yes	
Dibenzo(a,h)anthracene	230	ug/Kg	1.0	U	U	Yes	
Benzo(g,h,i)perylene	230	ug/Kg	1.0	U	U	Yes	
2,3,4,6-Tetrachlorophenol	230	ug/Kg	1.0	U	U	Yes	
Stigmasterol, 22,23-dihydro-	660	ug/Kg	1.0	NJ	NJ	Yes	
Octadecane			1.0	NJ		No	
Phenol, 4,4'-(1-methylethylidene)bis-	160	ug/Kg	1.0	NJ	NJ	Yes	
Hexadecanoic acid, butyl ester	340	ug/Kg	1.0	NJ	NJ	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA5	Lab Code: MITKEM
Sample Number: E0AC0	Method: BNA	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD06-(6-12)-072413	pH: 7.6	Sample Date: 07/24/2013	Sample Time: 17:05:00
% Moisture : 22.68761		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Benzaldehyde	220	ug/Kg	1.0	U	U	Yes	
Phenol	220	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethyl)ether	220	ug/Kg	1.0	U	U	Yes	
2-Chlorophenol	220	ug/Kg	1.0	U	U	Yes	
2-Methylphenol	220	ug/Kg	1.0	U	U	Yes	
2,2'-Oxybis(1-chloropropane)	220	ug/Kg	1.0	U	U	Yes	
Acetophenone	220	ug/Kg	1.0	U	U	Yes	
4-Methylphenol	220	ug/Kg	1.0	U	U	Yes	
N-Nitroso-di-n-propylamine	220	ug/Kg	1.0	U	U	Yes	
Hexachloroethane	220	ug/Kg	1.0	U	U	Yes	
Nitrobenzene	220	ug/Kg	1.0	U	U	Yes	
Isophorone	220	ug/Kg	1.0	U	U	Yes	
2-Nitrophenol	220	ug/Kg	1.0	U	U	Yes	
2,4-Dimethylphenol	220	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethoxy)methane	220	ug/Kg	1.0	U	U	Yes	
2,4-Dichlorophenol	220	ug/Kg	1.0	U	U	Yes	
Naphthalene	220	ug/Kg	1.0	U	U	Yes	
4-Chloroaniline	220	ug/Kg	1.0	U	U	Yes	
Hexachlorobutadiene	220	ug/Kg	1.0	U	U	Yes	
Caprolactam	220	ug/Kg	1.0	U	U	Yes	
4-Chloro-3-methylphenol	220	ug/Kg	1.0	U	U	Yes	
2-Methylnaphthalene	220	ug/Kg	1.0	U	U	Yes	
Hexachlorocyclopentadiene	220	ug/Kg	1.0	U	U	Yes	
2,4,6-Trichlorophenol	220	ug/Kg	1.0	U	U	Yes	
2,4,5-Trichlorophenol	220	ug/Kg	1.0	U	U	Yes	
1,1'-Biphenyl	220	ug/Kg	1.0	U	U	Yes	
2-Chloronaphthalene	220	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
2-Nitroaniline	420	ug/Kg	1.0	U	U	Yes	
Dimethylphthalate	220	ug/Kg	1.0	U	U	Yes	
2,6-Dinitrotoluene	220	ug/Kg	1.0	U	U	Yes	
Acenaphthylene	220	ug/Kg	1.0	U	U	Yes	
3-Nitroaniline	420	ug/Kg	1.0	U	U	Yes	
Acenaphthene	220	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrophenol	420	ug/Kg	1.0	U	U	Yes	
4-Nitrophenol	420	ug/Kg	1.0	U	U	Yes	
Dibenzofuran	220	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrotoluene	220	ug/Kg	1.0	U	U	Yes	
Diethylphthalate	220	ug/Kg	1.0	U	U	Yes	
Fluorene	220	ug/Kg	1.0	U	U	Yes	
4-Chlorophenyl-phenylether	220	ug/Kg	1.0	U	U	Yes	
4-Nitroaniline	420	ug/Kg	1.0	U	U	Yes	
4,6-Dinitro-2-methylphenol	420	ug/Kg	1.0	U	U	Yes	
N-Nitrosodiphenylamine	220	ug/Kg	1.0	U	U	Yes	
1,2,4,5-Tetrachlorobenzene	220	ug/Kg	1.0	U	U	Yes	
4-Bromophenyl-phenylether	220	ug/Kg	1.0	U	U	Yes	
Hexachlorobenzene	220	ug/Kg	1.0	U	U	Yes	
Atrazine	220	ug/Kg	1.0	U	U	Yes	
Pentachlorophenol	420	ug/Kg	1.0	U	U	Yes	
Phenanthrene	220	ug/Kg	1.0	U	U	Yes	
Anthracene	220	ug/Kg	1.0	U	U	Yes	
Carbazole	220	ug/Kg	1.0	U	U	Yes	
Di-n-butylphthalate	220	ug/Kg	1.0	U	U	Yes	
Fluoranthene	220	ug/Kg	1.0	U	UJ	Yes	
Pyrene	220	ug/Kg	1.0	U	UJ	Yes	
Butylbenzylphthalate	43	ug/Kg	1.0	J	J	Yes	
3,3'-Dichlorobenzidine	220	ug/Kg	1.0	U	U	Yes	
Benzo(a)anthracene	220	ug/Kg	1.0	U	UJ	Yes	
Chrysene	220	ug/Kg	1.0	U	UJ	Yes	
Bis(2-ethylhexyl)	220	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
phthalate	220	ug/Kg	1.0	U	U	Yes	
Di-n-octylphthalate	220	ug/Kg	1.0	U	U	Yes	
Benzo(b)fluoranthene	220	ug/Kg	1.0	U	U	Yes	
Benzo(k)fluoranthene	220	ug/Kg	1.0	U	U	Yes	
Benzo(a)pyrene	220	ug/Kg	1.0	U	U	Yes	
Indeno(1,2,3-cd)pyrene	220	ug/Kg	1.0	U	U	Yes	
Dibenzo(a,h)anthracene	220	ug/Kg	1.0	U	U	Yes	
Benzo(g,h,i)perylene	220	ug/Kg	1.0	U	U	Yes	
2,3,4,6-Tetrachlorophenol	220	ug/Kg	1.0	U	U	Yes	
Hexadecanoic acid, butyl ester	200	ug/Kg	1.0	NJ	NJ	Yes	
E-15-Heptadecenal	170	ug/Kg	1.0	NJ	NJ	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA5	Lab Code: MITKEM
Sample Number: E0AC0	Method: VOA_Low_Med	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD06-(6-12)-072413	pH: 7.0	Sample Date: 07/24/2013	Sample Time: 17:05:00
% Moisture : 22.68761		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	7.9	ug/Kg	1.0	U	U	Yes	
Chloromethane	7.9	ug/Kg	1.0	U	U	Yes	
Vinyl chloride	7.9	ug/Kg	1.0	U	U	Yes	
Bromomethane	7.9	ug/Kg	1.0	U	U	Yes	
Chloroethane	7.9	ug/Kg	1.0	U	U	Yes	
Trichlorofluorom ethane	7.9	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethene	7.9	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloro-1,2,2-trifluoroethane	7.9	ug/Kg	1.0	U	U	Yes	
Acetone	16	ug/Kg	1.0	U	U	Yes	
Carbon disulfide	7.9	ug/Kg	1.0	U	U	Yes	
Methyl acetate	7.9	ug/Kg	1.0	U	U	Yes	
Methylene chloride	7.9	ug/Kg	1.0	U	U	Yes	
trans-1,2-Dichloroethene	7.9	ug/Kg	1.0	U	U	Yes	
Methyl tert-butyl ether	7.9	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethane	7.9	ug/Kg	1.0	U	U	Yes	
cis-1,2-Dichloroethene	7.9	ug/Kg	1.0	U	U	Yes	
2-Butanone	16	ug/Kg	1.0	U	U	Yes	
Bromochloromet hane	7.9	ug/Kg	1.0	U	U	Yes	
Chloroform	7.9	ug/Kg	1.0	U	U	Yes	
1,1,1-Trichloroethane	7.9	ug/Kg	1.0	U	U	Yes	
Cyclohexane	7.9	ug/Kg	1.0	U	U	Yes	
Carbon tetrachloride	7.9	ug/Kg	1.0	U	U	Yes	
Benzene	7.9	ug/Kg	1.0	U	U	Yes	
1,2-Dichloroethane	7.9	ug/Kg	1.0	U	U	Yes	
1,4-Dioxane	160	ug/Kg	1.0	U	U	Yes	
Trichloroethene	7.9	ug/Kg	1.0	U	U	Yes	
Methylcyclohexa ne	7.9	ug/Kg	1.0	U	U	Yes	
1,2-Dichloropropane	7.9	ug/Kg	1.0	U	U	Yes	
Bromodichlorom	7.9	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
ethane	7.9	ug/Kg	1.0	U	U	Yes	
cis-1,3-Dichloropropene	7.9	ug/Kg	1.0	U	U	Yes	
4-Methyl-2-pentanone	16	ug/Kg	1.0	U	U	Yes	
Toluene	7.9	ug/Kg	1.0	U	U	Yes	
trans-1,3-Dichloropropene	7.9	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloroethane	7.9	ug/Kg	1.0	U	U	Yes	
Tetrachloroethene	7.9	ug/Kg	1.0	U	U	Yes	
2-Hexanone	16	ug/Kg	1.0	U	U	Yes	
Dibromochloromethane	7.9	ug/Kg	1.0	U	U	Yes	
1,2-Dibromoethane	7.9	ug/Kg	1.0	U	U	Yes	
Chlorobenzene	7.9	ug/Kg	1.0	U	U	Yes	
Ethylbenzene	7.9	ug/Kg	1.0	U	U	Yes	
o-Xylene	7.9	ug/Kg	1.0	U	U	Yes	
m,p-Xylene	7.9	ug/Kg	1.0	U	U	Yes	
Styrene	7.9	ug/Kg	1.0	U	U	Yes	
Bromoform	7.9	ug/Kg	1.0	U	U	Yes	
Isopropylbenzene	7.9	ug/Kg	1.0	U	U	Yes	
1,1,2,2-Tetrachloroethane	7.9	ug/Kg	1.0	U	U	Yes	
1,3-Dichlorobenzene	7.9	ug/Kg	1.0	U	U	Yes	
1,4-Dichlorobenzene	7.9	ug/Kg	1.0	U	U	Yes	
1,2-Dichlorobenzene	7.9	ug/Kg	1.0	U	U	Yes	
1,2-Dibromo-3-chloropropane	7.9	ug/Kg	1.0	U	U	Yes	
1,2,4-Trichlorobenzene	7.9	ug/Kg	1.0	U	U	Yes	
1,2,3-Trichlorobenzene	7.9	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA5	Lab Code: MITKEM
Sample Number: E0AC1	Method: BNA	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD05-(0-6)-072413	pH: 6.9	Sample Date: 07/24/2013	Sample Time: 17:35:00
% Moisture : 17.12963		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Benzaldehyde	200	ug/Kg	1.0	U	U	Yes	
Phenol	200	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethyl)ether	200	ug/Kg	1.0	U	U	Yes	
2-Chlorophenol	200	ug/Kg	1.0	U	U	Yes	
2-Methylphenol	200	ug/Kg	1.0	U	U	Yes	
2,2'-Oxybis(1-chloropropane)	200	ug/Kg	1.0	U	U	Yes	
Acetophenone	200	ug/Kg	1.0	U	U	Yes	
4-Methylphenol	200	ug/Kg	1.0	U	U	Yes	
N-Nitroso-di-n-propylamine	200	ug/Kg	1.0	U	U	Yes	
Hexachloroethane	200	ug/Kg	1.0	U	U	Yes	
Nitrobenzene	200	ug/Kg	1.0	U	U	Yes	
Isophorone	200	ug/Kg	1.0	U	U	Yes	
2-Nitrophenol	200	ug/Kg	1.0	U	U	Yes	
2,4-Dimethylphenol	200	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethoxy)methane	200	ug/Kg	1.0	U	U	Yes	
2,4-Dichlorophenol	200	ug/Kg	1.0	U	U	Yes	
Naphthalene	200	ug/Kg	1.0	U	U	Yes	
4-Chloroaniline	200	ug/Kg	1.0	U	U	Yes	
Hexachlorobutadiene	200	ug/Kg	1.0	U	U	Yes	
Caprolactam	200	ug/Kg	1.0	U	U	Yes	
4-Chloro-3-methylphenol	200	ug/Kg	1.0	U	U	Yes	
2-Methylnaphthalene	200	ug/Kg	1.0	U	U	Yes	
Hexachlorocyclopentadiene	200	ug/Kg	1.0	U	U	Yes	
2,4,6-Trichlorophenol	200	ug/Kg	1.0	U	U	Yes	
2,4,5-Trichlorophenol	200	ug/Kg	1.0	U	U	Yes	
1,1'-Biphenyl	200	ug/Kg	1.0	U	U	Yes	
2-Chloronaphthalene	200	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
2-Nitroaniline	390	ug/Kg	1.0	U	U	Yes	
Dimethylphthalate	200	ug/Kg	1.0	U	U	Yes	
2,6-Dinitrotoluene	200	ug/Kg	1.0	U	U	Yes	
Acenaphthylene	200	ug/Kg	1.0	U	U	Yes	
3-Nitroaniline	390	ug/Kg	1.0	U	U	Yes	
Acenaphthene	200	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrophenol	390	ug/Kg	1.0	U	U	Yes	
4-Nitrophenol	390	ug/Kg	1.0	U	U	Yes	
Dibenzofuran	200	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrotoluene	200	ug/Kg	1.0	U	U	Yes	
Diethylphthalate	200	ug/Kg	1.0	U	U	Yes	
Fluorene	200	ug/Kg	1.0	U	U	Yes	
4-Chlorophenyl-phenylether	200	ug/Kg	1.0	U	U	Yes	
4-Nitroaniline	390	ug/Kg	1.0	U	U	Yes	
4,6-Dinitro-2-methylphenol	390	ug/Kg	1.0	U	U	Yes	
N-Nitrosodiphenylamine	200	ug/Kg	1.0	U	U	Yes	
1,2,4,5-Tetrachlorobenzene	200	ug/Kg	1.0	U	U	Yes	
4-Bromophenyl-phenylether	200	ug/Kg	1.0	U	U	Yes	
Hexachlorobenzene	200	ug/Kg	1.0	U	U	Yes	
Atrazine	200	ug/Kg	1.0	U	U	Yes	
Pentachlorophenol	390	ug/Kg	1.0	U	U	Yes	
Phenanthrene	200	ug/Kg	1.0	U	U	Yes	
Anthracene	200	ug/Kg	1.0	U	U	Yes	
Carbazole	200	ug/Kg	1.0	U	U	Yes	
Di-n-butylphthalate	200	ug/Kg	1.0	U	U	Yes	
Fluoranthene	200	ug/Kg	1.0	U	U	Yes	
Pyrene	200	ug/Kg	1.0	U	U	Yes	
Butylbenzylphthalate	45	ug/Kg	1.0	J	J	Yes	
3,3'-Dichlorobenzidine	200	ug/Kg	1.0	U	U	Yes	
Benzo(a)anthracene	200	ug/Kg	1.0	U	U	Yes	
Chrysene	200	ug/Kg	1.0	U	U	Yes	
Bis(2-ethylhexyl)	70	ug/Kg	1.0	J	J	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
phthalate	70	ug/Kg	1.0	J	J	Yes	
Di-n-octylphthalate	200	ug/Kg	1.0	U	U	Yes	
Benzo(b)fluoranthene	200	ug/Kg	1.0	U	U	Yes	
Benzo(k)fluoranthene	200	ug/Kg	1.0	U	U	Yes	
Benzo(a)pyrene	200	ug/Kg	1.0	U	U	Yes	
Indeno(1,2,3-cd)pyrene	200	ug/Kg	1.0	U	U	Yes	
Dibenzo(a,h)anthracene	200	ug/Kg	1.0	U	U	Yes	
Benzo(g,h,i)perylene	200	ug/Kg	1.0	U	U	Yes	
2,3,4,6-Tetrachlorophenol	200	ug/Kg	1.0	U	U	Yes	
Phenol, 4,4'-(1-methylethylidene)bis-	160	ug/Kg	1.0	NJ	NJ	Yes	
Octadecanoic acid, 2-methylpropyl ester	210	ug/Kg	1.0	NJ	NJ	Yes	
Hexadecanoic acid, butyl ester	260	ug/Kg	1.0	NJ	NJ	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA5	Lab Code: MITKEM
Sample Number: E0AC1	Method: VOA_Low_Med	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD05-(0-6)-072413	pH: 7.0	Sample Date: 07/24/2013	Sample Time: 17:35:00
% Moisture : 17.12963		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	7.7	ug/Kg	1.0	U	U	Yes	
Chloromethane	7.7	ug/Kg	1.0	U	U	Yes	
Vinyl chloride	7.7	ug/Kg	1.0	U	U	Yes	
Bromomethane	7.7	ug/Kg	1.0	U	U	Yes	
Chloroethane	7.7	ug/Kg	1.0	U	U	Yes	
Trichlorofluorom ethane	7.7	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethene	7.7	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloro-1,2,2-trifluoroethane	7.7	ug/Kg	1.0	U	U	Yes	
Acetone	15	ug/Kg	1.0	U	U	Yes	
Carbon disulfide	7.7	ug/Kg	1.0	U	U	Yes	
Methyl acetate	7.7	ug/Kg	1.0	U	U	Yes	
Methylene chloride	7.7	ug/Kg	1.0	U	U	Yes	
trans-1,2-Dichloroethene	7.7	ug/Kg	1.0	U	U	Yes	
Methyl tert-butyl ether	7.7	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethane	7.7	ug/Kg	1.0	U	U	Yes	
cis-1,2-Dichloroethene	7.7	ug/Kg	1.0	U	U	Yes	
2-Butanone	15	ug/Kg	1.0	U	U	Yes	
Bromochloromet hane	7.7	ug/Kg	1.0	U	U	Yes	
Chloroform	7.7	ug/Kg	1.0	U	U	Yes	
1,1,1-Trichloroethane	7.7	ug/Kg	1.0	U	U	Yes	
Cyclohexane	7.7	ug/Kg	1.0	U	U	Yes	
Carbon tetrachloride	7.7	ug/Kg	1.0	U	U	Yes	
Benzene	7.7	ug/Kg	1.0	U	U	Yes	
1,2-Dichloroethane	7.7	ug/Kg	1.0	U	U	Yes	
1,4-Dioxane	150	ug/Kg	1.0	U	U	Yes	
Trichloroethene	7.7	ug/Kg	1.0	U	U	Yes	
Methylcyclohexa ne	7.7	ug/Kg	1.0	U	U	Yes	
1,2-Dichloropropane	7.7	ug/Kg	1.0	U	U	Yes	
Bromodichlorom	7.7	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
ethane	7.7	ug/Kg	1.0	U	U	Yes	
cis-1,3-Dichloropropene	7.7	ug/Kg	1.0	U	U	Yes	
4-Methyl-2-pentanone	15	ug/Kg	1.0	U	U	Yes	
Toluene	7.7	ug/Kg	1.0	U	U	Yes	
trans-1,3-Dichloropropene	7.7	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloroethane	7.7	ug/Kg	1.0	U	U	Yes	
Tetrachloroethene	7.7	ug/Kg	1.0	U	U	Yes	
2-Hexanone	15	ug/Kg	1.0	U	U	Yes	
Dibromochloromethane	7.7	ug/Kg	1.0	U	U	Yes	
1,2-Dibromoethane	7.7	ug/Kg	1.0	U	U	Yes	
Chlorobenzene	7.7	ug/Kg	1.0	U	U	Yes	
Ethylbenzene	7.7	ug/Kg	1.0	U	U	Yes	
o-Xylene	7.7	ug/Kg	1.0	U	U	Yes	
m,p-Xylene	7.7	ug/Kg	1.0	U	U	Yes	
Styrene	7.7	ug/Kg	1.0	U	U	Yes	
Bromoform	7.7	ug/Kg	1.0	U	U	Yes	
Isopropylbenzene	7.7	ug/Kg	1.0	U	U	Yes	
1,1,2,2-Tetrachloroethane	7.7	ug/Kg	1.0	U	U	Yes	
1,3-Dichlorobenzene	7.7	ug/Kg	1.0	U	U	Yes	
1,4-Dichlorobenzene	7.7	ug/Kg	1.0	U	U	Yes	
1,2-Dichlorobenzene	7.7	ug/Kg	1.0	U	U	Yes	
1,2-Dibromo-3-chloropropane	7.7	ug/Kg	1.0	U	U	Yes	
1,2,4-Trichlorobenzene	7.7	ug/Kg	1.0	U	U	Yes	
1,2,3-Trichlorobenzene	7.7	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA5	Lab Code: MITKEM
Sample Number: E0AC2	Method: VOA_Low_Med	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD05-(6-12)-072413	pH: 7.0	Sample Date: 07/24/2013	Sample Time: 17:40:00
% Moisture : 16.54135		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	7.0	ug/Kg	1.0	U	U	Yes	
Chloromethane	7.0	ug/Kg	1.0	U	U	Yes	
Vinyl chloride	7.0	ug/Kg	1.0	U	U	Yes	
Bromomethane	7.0	ug/Kg	1.0	U	U	Yes	
Chloroethane	7.0	ug/Kg	1.0	U	U	Yes	
Trichlorofluorom ethane	7.0	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethene	7.0	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloro-1,2,2-trifluoroethane	7.0	ug/Kg	1.0	U	U	Yes	
Acetone	14	ug/Kg	1.0	U	U	Yes	
Carbon disulfide	7.0	ug/Kg	1.0	U	U	Yes	
Methyl acetate	7.0	ug/Kg	1.0	U	U	Yes	
Methylene chloride	14	ug/Kg	1.0	BJ	U	Yes	
trans-1,2-Dichloroethene	7.0	ug/Kg	1.0	U	U	Yes	
Methyl tert-butyl ether	7.0	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethane	7.0	ug/Kg	1.0	U	U	Yes	
cis-1,2-Dichloroethene	7.0	ug/Kg	1.0	U	U	Yes	
2-Butanone	14	ug/Kg	1.0	U	U	Yes	
Bromochloromet hane	7.0	ug/Kg	1.0	U	U	Yes	
Chloroform	7.0	ug/Kg	1.0	U	U	Yes	
1,1,1-Trichloroethane	7.0	ug/Kg	1.0	U	U	Yes	
Cyclohexane	7.0	ug/Kg	1.0	U	U	Yes	
Carbon tetrachloride	7.0	ug/Kg	1.0	U	U	Yes	
Benzene	7.0	ug/Kg	1.0	U	U	Yes	
1,2-Dichloroethane	7.0	ug/Kg	1.0	U	U	Yes	
1,4-Dioxane	140	ug/Kg	1.0	U	U	Yes	
Trichloroethene	7.0	ug/Kg	1.0	U	U	Yes	
Methylcyclohexa ne	7.0	ug/Kg	1.0	U	U	Yes	
1,2-Dichloropropane	7.0	ug/Kg	1.0	U	U	Yes	
Bromodichlorom	7.0	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
ethane	7.0	ug/Kg	1.0	U	U	Yes	
cis-1,3-Dichloropropene	7.0	ug/Kg	1.0	U	U	Yes	
4-Methyl-2-pentanone	14	ug/Kg	1.0	U	U	Yes	
Toluene	7.0	ug/Kg	1.0	U	U	Yes	
trans-1,3-Dichloropropene	7.0	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloroethane	7.0	ug/Kg	1.0	U	U	Yes	
Tetrachloroethene	7.0	ug/Kg	1.0	U	U	Yes	
2-Hexanone	14	ug/Kg	1.0	U	U	Yes	
Dibromochloromethane	7.0	ug/Kg	1.0	U	U	Yes	
1,2-Dibromoethane	7.0	ug/Kg	1.0	U	U	Yes	
Chlorobenzene	7.0	ug/Kg	1.0	U	U	Yes	
Ethylbenzene	7.0	ug/Kg	1.0	U	U	Yes	
o-Xylene	7.0	ug/Kg	1.0	U	U	Yes	
m,p-Xylene	7.0	ug/Kg	1.0	U	U	Yes	
Styrene	7.0	ug/Kg	1.0	U	U	Yes	
Bromoform	7.0	ug/Kg	1.0	U	U	Yes	
Isopropylbenzene	7.0	ug/Kg	1.0	U	U	Yes	
1,1,2,2-Tetrachloroethane	7.0	ug/Kg	1.0	U	U	Yes	
1,3-Dichlorobenzene	7.0	ug/Kg	1.0	U	U	Yes	
1,4-Dichlorobenzene	7.0	ug/Kg	1.0	U	U	Yes	
1,2-Dichlorobenzene	7.0	ug/Kg	1.0	U	U	Yes	
1,2-Dibromo-3-chloropropane	7.0	ug/Kg	1.0	U	U	Yes	
1,2,4-Trichlorobenzene	7.0	ug/Kg	1.0	U	U	Yes	
1,2,3-Trichlorobenzene	7.0	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA5	Lab Code: MITKEM
Sample Number: E0AC2	Method: BNA	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD05-(6-12)-072413	pH: 7.6	Sample Date: 07/24/2013	Sample Time: 17:40:00
% Moisture : 16.54135		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Benzaldehyde	200	ug/Kg	1.0	U	U	Yes	
Phenol	200	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethyl)ether	200	ug/Kg	1.0	U	U	Yes	
2-Chlorophenol	200	ug/Kg	1.0	U	U	Yes	
2-Methylphenol	200	ug/Kg	1.0	U	U	Yes	
2,2'-Oxybis(1-chloropropane)	200	ug/Kg	1.0	U	U	Yes	
Acetophenone	200	ug/Kg	1.0	U	U	Yes	
4-Methylphenol	200	ug/Kg	1.0	U	U	Yes	
N-Nitroso-di-n-propylamine	200	ug/Kg	1.0	U	U	Yes	
Hexachloroethane	200	ug/Kg	1.0	U	U	Yes	
Nitrobenzene	200	ug/Kg	1.0	U	U	Yes	
Isophorone	200	ug/Kg	1.0	U	U	Yes	
2-Nitrophenol	200	ug/Kg	1.0	U	U	Yes	
2,4-Dimethylphenol	200	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethoxy)methane	200	ug/Kg	1.0	U	U	Yes	
2,4-Dichlorophenol	200	ug/Kg	1.0	U	U	Yes	
Naphthalene	200	ug/Kg	1.0	U	U	Yes	
4-Chloroaniline	200	ug/Kg	1.0	U	U	Yes	
Hexachlorobutadiene	200	ug/Kg	1.0	U	U	Yes	
Caprolactam	200	ug/Kg	1.0	U	U	Yes	
4-Chloro-3-methylphenol	200	ug/Kg	1.0	U	U	Yes	
2-Methylnaphthalene	200	ug/Kg	1.0	U	U	Yes	
Hexachlorocyclopentadiene	200	ug/Kg	1.0	U	U	Yes	
2,4,6-Trichlorophenol	200	ug/Kg	1.0	U	U	Yes	
2,4,5-Trichlorophenol	200	ug/Kg	1.0	U	U	Yes	
1,1'-Biphenyl	200	ug/Kg	1.0	U	U	Yes	
2-Chloronaphthalene	200	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
2-Nitroaniline	390	ug/Kg	1.0	U	U	Yes	
Dimethylphthalate	200	ug/Kg	1.0	U	U	Yes	
2,6-Dinitrotoluene	200	ug/Kg	1.0	U	U	Yes	
Acenaphthylene	200	ug/Kg	1.0	U	U	Yes	
3-Nitroaniline	390	ug/Kg	1.0	U	U	Yes	
Acenaphthene	200	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrophenol	390	ug/Kg	1.0	U	U	Yes	
4-Nitrophenol	390	ug/Kg	1.0	U	U	Yes	
Dibenzofuran	200	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrotoluene	200	ug/Kg	1.0	U	U	Yes	
Diethylphthalate	200	ug/Kg	1.0	U	U	Yes	
Fluorene	200	ug/Kg	1.0	U	U	Yes	
4-Chlorophenyl-phenylether	200	ug/Kg	1.0	U	U	Yes	
4-Nitroaniline	390	ug/Kg	1.0	U	U	Yes	
4,6-Dinitro-2-methylphenol	390	ug/Kg	1.0	U	U	Yes	
N-Nitrosodiphenylamine	200	ug/Kg	1.0	U	U	Yes	
1,2,4,5-Tetrachlorobenzene	200	ug/Kg	1.0	U	U	Yes	
4-Bromophenyl-phenylether	200	ug/Kg	1.0	U	U	Yes	
Hexachlorobenzene	200	ug/Kg	1.0	U	U	Yes	
Atrazine	200	ug/Kg	1.0	U	U	Yes	
Pentachlorophenol	390	ug/Kg	1.0	U	U	Yes	
Phenanthrene	200	ug/Kg	1.0	U	U	Yes	
Anthracene	200	ug/Kg	1.0	U	U	Yes	
Carbazole	200	ug/Kg	1.0	U	U	Yes	
Di-n-butylphthalate	200	ug/Kg	1.0	U	U	Yes	
Fluoranthene	200	ug/Kg	1.0	U	U	Yes	
Pyrene	200	ug/Kg	1.0	U	U	Yes	
Butylbenzylphthalate	50	ug/Kg	1.0	J	J	Yes	
3,3'-Dichlorobenzidine	200	ug/Kg	1.0	U	U	Yes	
Benzo(a)anthracene	200	ug/Kg	1.0	U	U	Yes	
Chrysene	200	ug/Kg	1.0	U	U	Yes	
Bis(2-ethylhexyl)	290	ug/Kg	1.0			Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
phthalate	290	ug/Kg	1.0			Yes	
Di-n-octylphthalate	200	ug/Kg	1.0	U	U	Yes	
Benzo(b)fluoranthene	200	ug/Kg	1.0	U	U	Yes	
Benzo(k)fluoranthene	200	ug/Kg	1.0	U	U	Yes	
Benzo(a)pyrene	200	ug/Kg	1.0	U	U	Yes	
Indeno(1,2,3-cd)pyrene	200	ug/Kg	1.0	U	U	Yes	
Dibenzo(a,h)anthracene	200	ug/Kg	1.0	U	U	Yes	
Benzo(g,h,i)perylene	200	ug/Kg	1.0	U	U	Yes	
2,3,4,6-Tetrachlorophenol	200	ug/Kg	1.0	U	U	Yes	
13-Docosenamide, (Z)-	300	ug/Kg	1.0	NJ	NJ	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA5	Lab Code: MITKEM
Sample Number: E0AC3	Method: BNA	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD04-(0-6)-072513	pH: 7.7	Sample Date: 07/25/2013	Sample Time: 08:20:00
% Moisture : 22.01987		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Benzaldehyde	210	ug/Kg	1.0	U	U	Yes	
Phenol	210	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethyl)ether	210	ug/Kg	1.0	U	U	Yes	
2-Chlorophenol	210	ug/Kg	1.0	U	U	Yes	
2-Methylphenol	210	ug/Kg	1.0	U	U	Yes	
2,2'-Oxybis(1-chloropropane)	210	ug/Kg	1.0	U	U	Yes	
Acetophenone	210	ug/Kg	1.0	U	U	Yes	
4-Methylphenol	210	ug/Kg	1.0	U	U	Yes	
N-Nitroso-di-n-propylamine	210	ug/Kg	1.0	U	U	Yes	
Hexachloroethane	210	ug/Kg	1.0	U	U	Yes	
Nitrobenzene	210	ug/Kg	1.0	U	U	Yes	
Isophorone	210	ug/Kg	1.0	U	U	Yes	
2-Nitrophenol	210	ug/Kg	1.0	U	U	Yes	
2,4-Dimethylphenol	210	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethoxy)methane	210	ug/Kg	1.0	U	U	Yes	
2,4-Dichlorophenol	210	ug/Kg	1.0	U	U	Yes	
Naphthalene	210	ug/Kg	1.0	U	U	Yes	
4-Chloroaniline	210	ug/Kg	1.0	U	U	Yes	
Hexachlorobutadiene	210	ug/Kg	1.0	U	U	Yes	
Caprolactam	210	ug/Kg	1.0	U	U	Yes	
4-Chloro-3-methylphenol	210	ug/Kg	1.0	U	U	Yes	
2-Methylnaphthalene	210	ug/Kg	1.0	U	U	Yes	
Hexachlorocyclopentadiene	210	ug/Kg	1.0	U	U	Yes	
2,4,6-Trichlorophenol	210	ug/Kg	1.0	U	U	Yes	
2,4,5-Trichlorophenol	210	ug/Kg	1.0	U	U	Yes	
1,1'-Biphenyl	210	ug/Kg	1.0	U	U	Yes	
2-Chloronaphthalene	210	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
2-Nitroaniline	410	ug/Kg	1.0	U	U	Yes	
Dimethylphthalate	210	ug/Kg	1.0	U	U	Yes	
2,6-Dinitrotoluene	210	ug/Kg	1.0	U	U	Yes	
Acenaphthylene	210	ug/Kg	1.0	U	U	Yes	
3-Nitroaniline	410	ug/Kg	1.0	U	U	Yes	
Acenaphthene	210	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrophenol	410	ug/Kg	1.0	U	U	Yes	
4-Nitrophenol	410	ug/Kg	1.0	U	U	Yes	
Dibenzofuran	210	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrotoluene	210	ug/Kg	1.0	U	U	Yes	
Diethylphthalate	210	ug/Kg	1.0	U	U	Yes	
Fluorene	210	ug/Kg	1.0	U	U	Yes	
4-Chlorophenyl-phenylether	210	ug/Kg	1.0	U	U	Yes	
4-Nitroaniline	410	ug/Kg	1.0	U	U	Yes	
4,6-Dinitro-2-methylphenol	410	ug/Kg	1.0	U	U	Yes	
N-Nitrosodiphenylamine	210	ug/Kg	1.0	U	U	Yes	
1,2,4,5-Tetrachlorobenzene	210	ug/Kg	1.0	U	U	Yes	
4-Bromophenyl-phenylether	210	ug/Kg	1.0	U	U	Yes	
Hexachlorobenzene	210	ug/Kg	1.0	U	U	Yes	
Atrazine	210	ug/Kg	1.0	U	U	Yes	
Pentachlorophenol	410	ug/Kg	1.0	U	U	Yes	
Phenanthrene	210	ug/Kg	1.0	U	U	Yes	
Anthracene	210	ug/Kg	1.0	U	U	Yes	
Carbazole	210	ug/Kg	1.0	U	U	Yes	
Di-n-butylphthalate	45	ug/Kg	1.0	J	J	Yes	
Fluoranthene	210	ug/Kg	1.0	U	U	Yes	
Pyrene	210	ug/Kg	1.0	U	U	Yes	
Butylbenzylphthalate	62	ug/Kg	1.0	J	J	Yes	
3,3'-Dichlorobenzidine	210	ug/Kg	1.0	U	U	Yes	
Benzo(a)anthracene	210	ug/Kg	1.0	U	U	Yes	
Chrysene	210	ug/Kg	1.0	U	U	Yes	
Bis(2-ethylhexyl)	160	ug/Kg	1.0	J	J	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
phthalate	160	ug/Kg	1.0	J	J	Yes	
Di-n-octylphthalate	210	ug/Kg	1.0	U	U	Yes	
Benzo(b)fluoranthene	210	ug/Kg	1.0	U	U	Yes	
Benzo(k)fluoranthene	210	ug/Kg	1.0	U	U	Yes	
Benzo(a)pyrene	210	ug/Kg	1.0	U	U	Yes	
Indeno(1,2,3-cd)pyrene	210	ug/Kg	1.0	U	U	Yes	
Dibenzo(a,h)anthracene	210	ug/Kg	1.0	U	U	Yes	
Benzo(g,h,i)perylene	210	ug/Kg	1.0	U	U	Yes	
2,3,4,6-Tetrachlorophenol	210	ug/Kg	1.0	U	U	Yes	
Dodecanoic acid	98	ug/Kg	1.0	NJ	NJ	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA5	Lab Code: MITKEM
Sample Number: E0AC3	Method: VOA_Low_Med	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD04-(0-6)-072513	pH: 7.0	Sample Date: 07/25/2013	Sample Time: 08:20:00
% Moisture : 22.01987		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	6.2	ug/Kg	1.0	U	U	Yes	
Chloromethane	6.2	ug/Kg	1.0	U	U	Yes	
Vinyl chloride	6.2	ug/Kg	1.0	U	U	Yes	
Bromomethane	6.2	ug/Kg	1.0	U	U	Yes	
Chloroethane	6.2	ug/Kg	1.0	U	U	Yes	
Trichlorofluorom ethane	6.2	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethene	6.2	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloro-1,2,2-trifluoroethane	6.2	ug/Kg	1.0	U	U	Yes	
Acetone	12	ug/Kg	1.0	U	U	Yes	
Carbon disulfide	6.2	ug/Kg	1.0	U	U	Yes	
Methyl acetate	6.2	ug/Kg	1.0	U	U	Yes	
Methylene chloride	6.2	ug/Kg	1.0	U	U	Yes	
trans-1,2-Dichloroethene	6.2	ug/Kg	1.0	U	U	Yes	
Methyl tert-butyl ether	6.2	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethane	6.2	ug/Kg	1.0	U	U	Yes	
cis-1,2-Dichloroethene	6.2	ug/Kg	1.0	U	U	Yes	
2-Butanone	12	ug/Kg	1.0	U	U	Yes	
Bromochloromet hane	6.2	ug/Kg	1.0	U	U	Yes	
Chloroform	6.2	ug/Kg	1.0	U	U	Yes	
1,1,1-Trichloroethane	6.2	ug/Kg	1.0	U	U	Yes	
Cyclohexane	6.2	ug/Kg	1.0	U	U	Yes	
Carbon tetrachloride	6.2	ug/Kg	1.0	U	U	Yes	
Benzene	6.2	ug/Kg	1.0	U	U	Yes	
1,2-Dichloroethane	6.2	ug/Kg	1.0	U	U	Yes	
1,4-Dioxane	120	ug/Kg	1.0	U	U	Yes	
Trichloroethene	6.2	ug/Kg	1.0	U	U	Yes	
Methylcyclohexa ne	6.2	ug/Kg	1.0	U	U	Yes	
1,2-Dichloropropane	6.2	ug/Kg	1.0	U	U	Yes	
Bromodichlorom	6.2	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
ethane	6.2	ug/Kg	1.0	U	U	Yes	
cis-1,3-Dichloropropene	6.2	ug/Kg	1.0	U	U	Yes	
4-Methyl-2-pentanone	12	ug/Kg	1.0	U	U	Yes	
Toluene	6.2	ug/Kg	1.0	U	U	Yes	
trans-1,3-Dichloropropene	6.2	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloroethane	6.2	ug/Kg	1.0	U	U	Yes	
Tetrachloroethene	6.2	ug/Kg	1.0	U	U	Yes	
2-Hexanone	12	ug/Kg	1.0	U	U	Yes	
Dibromochloromethane	6.2	ug/Kg	1.0	U	U	Yes	
1,2-Dibromoethane	6.2	ug/Kg	1.0	U	U	Yes	
Chlorobenzene	6.2	ug/Kg	1.0	U	U	Yes	
Ethylbenzene	6.2	ug/Kg	1.0	U	U	Yes	
o-Xylene	6.2	ug/Kg	1.0	U	U	Yes	
m,p-Xylene	6.2	ug/Kg	1.0	U	U	Yes	
Styrene	6.2	ug/Kg	1.0	U	U	Yes	
Bromoform	6.2	ug/Kg	1.0	U	U	Yes	
Isopropylbenzene	6.2	ug/Kg	1.0	U	U	Yes	
1,1,2,2-Tetrachloroethane	6.2	ug/Kg	1.0	U	U	Yes	
1,3-Dichlorobenzene	6.2	ug/Kg	1.0	U	U	Yes	
1,4-Dichlorobenzene	6.2	ug/Kg	1.0	U	U	Yes	
1,2-Dichlorobenzene	6.2	ug/Kg	1.0	U	U	Yes	
1,2-Dibromo-3-chloropropane	6.2	ug/Kg	1.0	U	U	Yes	
1,2,4-Trichlorobenzene	6.2	ug/Kg	1.0	U	U	Yes	
1,2,3-Trichlorobenzene	6.2	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA5	Lab Code: MITKEM
Sample Number: E0AC4	Method: BNA	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD04-(0-6)-072513D	pH: 7.6	Sample Date: 07/25/2013	Sample Time: 08:25:00
% Moisture : 23.14694		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Benzaldehyde	220	ug/Kg	1.0	U	U	Yes	
Phenol	220	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethyl)ether	220	ug/Kg	1.0	U	U	Yes	
2-Chlorophenol	220	ug/Kg	1.0	U	U	Yes	
2-Methylphenol	220	ug/Kg	1.0	U	U	Yes	
2,2'-Oxybis(1-chloropropane)	220	ug/Kg	1.0	U	U	Yes	
Acetophenone	220	ug/Kg	1.0	U	U	Yes	
4-Methylphenol	220	ug/Kg	1.0	U	U	Yes	
N-Nitroso-di-n-propylamine	220	ug/Kg	1.0	U	U	Yes	
Hexachloroethane	220	ug/Kg	1.0	U	U	Yes	
Nitrobenzene	220	ug/Kg	1.0	U	U	Yes	
Isophorone	220	ug/Kg	1.0	U	U	Yes	
2-Nitrophenol	220	ug/Kg	1.0	U	U	Yes	
2,4-Dimethylphenol	220	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethoxy)methane	220	ug/Kg	1.0	U	U	Yes	
2,4-Dichlorophenol	220	ug/Kg	1.0	U	U	Yes	
Naphthalene	220	ug/Kg	1.0	U	U	Yes	
4-Chloroaniline	220	ug/Kg	1.0	U	U	Yes	
Hexachlorobutadiene	220	ug/Kg	1.0	U	U	Yes	
Caprolactam	220	ug/Kg	1.0	U	U	Yes	
4-Chloro-3-methylphenol	220	ug/Kg	1.0	U	U	Yes	
2-Methylnaphthalene	220	ug/Kg	1.0	U	U	Yes	
Hexachlorocyclopentadiene	220	ug/Kg	1.0	U	U	Yes	
2,4,6-Trichlorophenol	220	ug/Kg	1.0	U	U	Yes	
2,4,5-Trichlorophenol	220	ug/Kg	1.0	U	U	Yes	
1,1'-Biphenyl	220	ug/Kg	1.0	U	U	Yes	
2-Chloronaphthalene	220	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
2-Nitroaniline	420	ug/Kg	1.0	U	U	Yes	
Dimethylphthalate	220	ug/Kg	1.0	U	U	Yes	
2,6-Dinitrotoluene	220	ug/Kg	1.0	U	U	Yes	
Acenaphthylene	220	ug/Kg	1.0	U	U	Yes	
3-Nitroaniline	420	ug/Kg	1.0	U	U	Yes	
Acenaphthene	220	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrophenol	420	ug/Kg	1.0	U	U	Yes	
4-Nitrophenol	420	ug/Kg	1.0	U	U	Yes	
Dibenzofuran	220	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrotoluene	220	ug/Kg	1.0	U	U	Yes	
Diethylphthalate	220	ug/Kg	1.0	U	U	Yes	
Fluorene	220	ug/Kg	1.0	U	U	Yes	
4-Chlorophenyl-phenylether	220	ug/Kg	1.0	U	U	Yes	
4-Nitroaniline	420	ug/Kg	1.0	U	U	Yes	
4,6-Dinitro-2-methylphenol	420	ug/Kg	1.0	U	U	Yes	
N-Nitrosodiphenylamine	220	ug/Kg	1.0	U	U	Yes	
1,2,4,5-Tetrachlorobenzene	220	ug/Kg	1.0	U	U	Yes	
4-Bromophenyl-phenylether	220	ug/Kg	1.0	U	U	Yes	
Hexachlorobenzene	220	ug/Kg	1.0	U	U	Yes	
Atrazine	220	ug/Kg	1.0	U	U	Yes	
Pentachlorophenol	420	ug/Kg	1.0	U	U	Yes	
Phenanthrene	220	ug/Kg	1.0	U	U	Yes	
Anthracene	220	ug/Kg	1.0	U	U	Yes	
Carbazole	220	ug/Kg	1.0	U	U	Yes	
Di-n-butylphthalate	43	ug/Kg	1.0	J	J	Yes	
Fluoranthene	220	ug/Kg	1.0	U	UJ	Yes	
Pyrene	220	ug/Kg	1.0	U	UJ	Yes	
Butylbenzylphthalate	51	ug/Kg	1.0	J	J	Yes	
3,3'-Dichlorobenzidine	220	ug/Kg	1.0	U	U	Yes	
Benzo(a)anthracene	220	ug/Kg	1.0	U	UJ	Yes	
Chrysene	220	ug/Kg	1.0	U	UJ	Yes	
Bis(2-ethylhexyl)	130	ug/Kg	1.0	J	J	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
phthalate	130	ug/Kg	1.0	J	J	Yes	
Di-n-octylphthalate	220	ug/Kg	1.0	U	U	Yes	
Benzo(b)fluoranthene	220	ug/Kg	1.0	U	U	Yes	
Benzo(k)fluoranthene	220	ug/Kg	1.0	U	U	Yes	
Benzo(a)pyrene	220	ug/Kg	1.0	U	U	Yes	
Indeno(1,2,3-cd)pyrene	220	ug/Kg	1.0	U	U	Yes	
Dibenzo(a,h)anthracene	220	ug/Kg	1.0	U	U	Yes	
Benzo(g,h,i)perylene	220	ug/Kg	1.0	U	U	Yes	
2,3,4,6-Tetrachlorophenol	220	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA5	Lab Code: MITKEM
Sample Number: E0AC4	Method: VOA_Low_Med	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD04-(0-6)-072513D	pH: 7.0	Sample Date: 07/25/2013	Sample Time: 08:25:00
% Moisture : 23.14694		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	6.3	ug/Kg	1.0	U	U	Yes	
Chloromethane	6.3	ug/Kg	1.0	U	U	Yes	
Vinyl chloride	6.3	ug/Kg	1.0	U	U	Yes	
Bromomethane	6.3	ug/Kg	1.0	U	U	Yes	
Chloroethane	6.3	ug/Kg	1.0	U	U	Yes	
Trichlorofluorom ethane	6.3	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethene	6.3	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloro-1,2,2-trifluoroethane	6.3	ug/Kg	1.0	U	U	Yes	
Acetone	13	ug/Kg	1.0	U	U	Yes	
Carbon disulfide	6.3	ug/Kg	1.0	U	U	Yes	
Methyl acetate	6.3	ug/Kg	1.0	U	U	Yes	
Methylene chloride	6.3	ug/Kg	1.0	U	U	Yes	
trans-1,2-Dichloroethene	6.3	ug/Kg	1.0	U	U	Yes	
Methyl tert-butyl ether	6.3	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethane	6.3	ug/Kg	1.0	U	U	Yes	
cis-1,2-Dichloroethene	6.3	ug/Kg	1.0	U	U	Yes	
2-Butanone	13	ug/Kg	1.0	U	U	Yes	
Bromochloromet hane	6.3	ug/Kg	1.0	U	U	Yes	
Chloroform	6.3	ug/Kg	1.0	U	U	Yes	
1,1,1-Trichloroethane	6.3	ug/Kg	1.0	U	U	Yes	
Cyclohexane	6.3	ug/Kg	1.0	U	U	Yes	
Carbon tetrachloride	6.3	ug/Kg	1.0	U	U	Yes	
Benzene	6.3	ug/Kg	1.0	U	U	Yes	
1,2-Dichloroethane	6.3	ug/Kg	1.0	U	U	Yes	
1,4-Dioxane	130	ug/Kg	1.0	U	U	Yes	
Trichloroethene	6.3	ug/Kg	1.0	U	U	Yes	
Methylcyclohexa ne	6.3	ug/Kg	1.0	U	U	Yes	
1,2-Dichloropropane	6.3	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Bromodichloromethane	6.3	ug/Kg	1.0	U	U	Yes	
cis-1,3-Dichloropropene	6.3	ug/Kg	1.0	U	U	Yes	
4-Methyl-2-pentanone	13	ug/Kg	1.0	U	U	Yes	
Toluene	6.3	ug/Kg	1.0	U	U	Yes	
trans-1,3-Dichloropropene	6.3	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloroethane	6.3	ug/Kg	1.0	U	U	Yes	
Tetrachloroethene	6.3	ug/Kg	1.0	U	U	Yes	
2-Hexanone	13	ug/Kg	1.0	U	U	Yes	
Dibromochloromethane	6.3	ug/Kg	1.0	U	U	Yes	
1,2-Dibromoethane	6.3	ug/Kg	1.0	U	U	Yes	
Chlorobenzene	6.3	ug/Kg	1.0	U	U	Yes	
Ethylbenzene	6.3	ug/Kg	1.0	U	U	Yes	
o-Xylene	6.3	ug/Kg	1.0	U	U	Yes	
m,p-Xylene	6.3	ug/Kg	1.0	U	U	Yes	
Styrene	6.3	ug/Kg	1.0	U	U	Yes	
Bromoform	6.3	ug/Kg	1.0	U	U	Yes	
Isopropylbenzene	6.3	ug/Kg	1.0	U	U	Yes	
1,1,2,2-Tetrachloroethane	6.3	ug/Kg	1.0	U	U	Yes	
1,3-Dichlorobenzene	6.3	ug/Kg	1.0	U	U	Yes	
1,4-Dichlorobenzene	6.3	ug/Kg	1.0	U	U	Yes	
1,2-Dichlorobenzene	6.3	ug/Kg	1.0	U	U	Yes	
1,2-Dibromo-3-chloropropane	6.3	ug/Kg	1.0	U	U	Yes	
1,2,4-Trichlorobenzene	6.3	ug/Kg	1.0	U	U	Yes	
1,2,3-Trichlorobenzene	6.3	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA5	Lab Code: MITKEM
Sample Number: E0AC5	Method: VOA_Low_Med	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD04-(6-12)-072513	pH: 7.0	Sample Date: 07/25/2013	Sample Time: 08:30:00
% Moisture : 16.95447		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	6.5	ug/Kg	1.0	U	U	Yes	
Chloromethane	6.5	ug/Kg	1.0	U	U	Yes	
Vinyl chloride	6.5	ug/Kg	1.0	U	U	Yes	
Bromomethane	6.5	ug/Kg	1.0	U	U	Yes	
Chloroethane	6.5	ug/Kg	1.0	U	U	Yes	
Trichlorofluorom ethane	6.5	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethene	6.5	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloro-1,2,2-trifluoroethane	6.5	ug/Kg	1.0	U	U	Yes	
Acetone	13	ug/Kg	1.0	U	U	Yes	
Carbon disulfide	6.5	ug/Kg	1.0	U	U	Yes	
Methyl acetate	6.5	ug/Kg	1.0	U	U	Yes	
Methylene chloride	6.5	ug/Kg	1.0	U	U	Yes	
trans-1,2-Dichloroethene	6.5	ug/Kg	1.0	U	U	Yes	
Methyl tert-butyl ether	6.5	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethane	6.5	ug/Kg	1.0	U	U	Yes	
cis-1,2-Dichloroethene	6.5	ug/Kg	1.0	U	U	Yes	
2-Butanone	13	ug/Kg	1.0	U	U	Yes	
Bromochloromet hane	6.5	ug/Kg	1.0	U	U	Yes	
Chloroform	6.5	ug/Kg	1.0	U	U	Yes	
1,1,1-Trichloroethane	6.5	ug/Kg	1.0	U	U	Yes	
Cyclohexane	6.5	ug/Kg	1.0	U	U	Yes	
Carbon tetrachloride	6.5	ug/Kg	1.0	U	U	Yes	
Benzene	6.5	ug/Kg	1.0	U	U	Yes	
1,2-Dichloroethane	6.5	ug/Kg	1.0	U	U	Yes	
1,4-Dioxane	130	ug/Kg	1.0	U	U	Yes	
Trichloroethene	6.5	ug/Kg	1.0	U	U	Yes	
Methylcyclohexa ne	6.5	ug/Kg	1.0	U	U	Yes	
1,2-Dichloropropane	6.5	ug/Kg	1.0	U	U	Yes	
Bromodichlorom	6.5	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
ethane	6.5	ug/Kg	1.0	U	U	Yes	
cis-1,3-Dichloropropene	6.5	ug/Kg	1.0	U	U	Yes	
4-Methyl-2-pentanone	13	ug/Kg	1.0	U	U	Yes	
Toluene	6.5	ug/Kg	1.0	U	U	Yes	
trans-1,3-Dichloropropene	6.5	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloroethane	6.5	ug/Kg	1.0	U	U	Yes	
Tetrachloroethene	6.5	ug/Kg	1.0	U	U	Yes	
2-Hexanone	13	ug/Kg	1.0	U	U	Yes	
Dibromochloromethane	6.5	ug/Kg	1.0	U	U	Yes	
1,2-Dibromoethane	6.5	ug/Kg	1.0	U	U	Yes	
Chlorobenzene	6.5	ug/Kg	1.0	U	U	Yes	
Ethylbenzene	6.5	ug/Kg	1.0	U	U	Yes	
o-Xylene	6.5	ug/Kg	1.0	U	U	Yes	
m,p-Xylene	6.5	ug/Kg	1.0	U	U	Yes	
Styrene	6.5	ug/Kg	1.0	U	U	Yes	
Bromoform	6.5	ug/Kg	1.0	U	U	Yes	
Isopropylbenzene	6.5	ug/Kg	1.0	U	U	Yes	
1,1,2,2-Tetrachloroethane	6.5	ug/Kg	1.0	U	U	Yes	
1,3-Dichlorobenzene	6.5	ug/Kg	1.0	U	U	Yes	
1,4-Dichlorobenzene	6.5	ug/Kg	1.0	U	U	Yes	
1,2-Dichlorobenzene	6.5	ug/Kg	1.0	U	U	Yes	
1,2-Dibromo-3-chloropropane	6.5	ug/Kg	1.0	U	U	Yes	
1,2,4-Trichlorobenzene	6.5	ug/Kg	1.0	U	U	Yes	
1,2,3-Trichlorobenzene	6.5	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA5	Lab Code: MITKEM
Sample Number: E0AC5	Method: BNA	Matrix: Soil	MA Number: DEFAULT
Sample Location: CC-SD04-(6-12)-072513	pH: 7.6	Sample Date: 07/25/2013	Sample Time: 08:30:00
% Moisture : 16.95447		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Benzaldehyde	200	ug/Kg	1.0	U	U	Yes	
Phenol	200	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethyl)ether	200	ug/Kg	1.0	U	U	Yes	
2-Chlorophenol	200	ug/Kg	1.0	U	U	Yes	
2-Methylphenol	200	ug/Kg	1.0	U	U	Yes	
2,2'-Oxybis(1-chloropropane)	200	ug/Kg	1.0	U	U	Yes	
Acetophenone	200	ug/Kg	1.0	U	U	Yes	
4-Methylphenol	200	ug/Kg	1.0	U	U	Yes	
N-Nitroso-di-n-propylamine	200	ug/Kg	1.0	U	U	Yes	
Hexachloroethane	200	ug/Kg	1.0	U	U	Yes	
Nitrobenzene	200	ug/Kg	1.0	U	U	Yes	
Isophorone	200	ug/Kg	1.0	U	U	Yes	
2-Nitrophenol	200	ug/Kg	1.0	U	U	Yes	
2,4-Dimethylphenol	200	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethoxy)methane	200	ug/Kg	1.0	U	U	Yes	
2,4-Dichlorophenol	200	ug/Kg	1.0	U	U	Yes	
Naphthalene	200	ug/Kg	1.0	U	U	Yes	
4-Chloroaniline	200	ug/Kg	1.0	U	U	Yes	
Hexachlorobutadiene	200	ug/Kg	1.0	U	U	Yes	
Caprolactam	200	ug/Kg	1.0	U	U	Yes	
4-Chloro-3-methylphenol	200	ug/Kg	1.0	U	U	Yes	
2-Methylnaphthalene	200	ug/Kg	1.0	U	U	Yes	
Hexachlorocyclopentadiene	200	ug/Kg	1.0	U	U	Yes	
2,4,6-Trichlorophenol	200	ug/Kg	1.0	U	U	Yes	
2,4,5-Trichlorophenol	200	ug/Kg	1.0	U	U	Yes	
1,1'-Biphenyl	200	ug/Kg	1.0	U	U	Yes	
2-Chloronaphthalene	200	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
2-Nitroaniline	390	ug/Kg	1.0	U	U	Yes	
Dimethylphthalate	200	ug/Kg	1.0	U	U	Yes	
2,6-Dinitrotoluene	200	ug/Kg	1.0	U	U	Yes	
Acenaphthylene	200	ug/Kg	1.0	U	U	Yes	
3-Nitroaniline	390	ug/Kg	1.0	U	U	Yes	
Acenaphthene	200	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrophenol	390	ug/Kg	1.0	U	U	Yes	
4-Nitrophenol	390	ug/Kg	1.0	U	U	Yes	
Dibenzofuran	200	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrotoluene	200	ug/Kg	1.0	U	U	Yes	
Diethylphthalate	200	ug/Kg	1.0	U	U	Yes	
Fluorene	200	ug/Kg	1.0	U	U	Yes	
4-Chlorophenyl-phenylether	200	ug/Kg	1.0	U	U	Yes	
4-Nitroaniline	390	ug/Kg	1.0	U	U	Yes	
4,6-Dinitro-2-methylphenol	390	ug/Kg	1.0	U	U	Yes	
N-Nitrosodiphenylamine	200	ug/Kg	1.0	U	U	Yes	
1,2,4,5-Tetrachlorobenzene	200	ug/Kg	1.0	U	U	Yes	
4-Bromophenyl-phenylether	200	ug/Kg	1.0	U	U	Yes	
Hexachlorobenzene	200	ug/Kg	1.0	U	U	Yes	
Atrazine	200	ug/Kg	1.0	U	U	Yes	
Pentachlorophenol	390	ug/Kg	1.0	U	U	Yes	
Phenanthrene	200	ug/Kg	1.0	U	U	Yes	
Anthracene	200	ug/Kg	1.0	U	U	Yes	
Carbazole	200	ug/Kg	1.0	U	U	Yes	
Di-n-butylphthalate	200	ug/Kg	1.0	U	U	Yes	
Fluoranthene	200	ug/Kg	1.0	U	U	Yes	
Pyrene	200	ug/Kg	1.0	U	U	Yes	
Butylbenzylphthalate	48	ug/Kg	1.0	J	J	Yes	
3,3'-Dichlorobenzidine	200	ug/Kg	1.0	U	U	Yes	
Benzo(a)anthracene	200	ug/Kg	1.0	U	U	Yes	
Chrysene	200	ug/Kg	1.0	U	U	Yes	
Bis(2-ethylhexyl)	120	ug/Kg	1.0	J	J	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
phthalate	120	ug/Kg	1.0	J	J	Yes	
Di-n-octylphthalate	200	ug/Kg	1.0	U	U	Yes	
Benzo(b)fluoranthene	200	ug/Kg	1.0	U	U	Yes	
Benzo(k)fluoranthene	200	ug/Kg	1.0	U	U	Yes	
Benzo(a)pyrene	200	ug/Kg	1.0	U	U	Yes	
Indeno(1,2,3-cd)pyrene	200	ug/Kg	1.0	U	U	Yes	
Dibenzo(a,h)anthracene	200	ug/Kg	1.0	U	U	Yes	
Benzo(g,h,i)perylene	200	ug/Kg	1.0	U	U	Yes	
2,3,4,6-Tetrachlorophenol	200	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA5	Lab Code: MITKEM
Sample Number: SBLK4R	Method: BNA	Matrix: Soil	MA Number: DEFAULT
Sample Location:	pH: 7.0	Sample Date:	Sample Time:
% Moisture : 0.00000		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Benzaldehyde	170	ug/Kg	1.0	U	U	Yes	
Phenol	170	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethyl)ether	170	ug/Kg	1.0	U	U	Yes	
2-Chlorophenol	170	ug/Kg	1.0	U	U	Yes	
2-Methylphenol	170	ug/Kg	1.0	U	U	Yes	
2,2'-Oxybis(1-chloropropane)	170	ug/Kg	1.0	U	U	Yes	
Acetophenone	170	ug/Kg	1.0	U	U	Yes	
4-Methylphenol	170	ug/Kg	1.0	U	U	Yes	
N-Nitroso-di-n-propylamine	170	ug/Kg	1.0	U	U	Yes	
Hexachloroethane	170	ug/Kg	1.0	U	U	Yes	
Nitrobenzene	170	ug/Kg	1.0	U	U	Yes	
Isophorone	170	ug/Kg	1.0	U	U	Yes	
2-Nitrophenol	170	ug/Kg	1.0	U	U	Yes	
2,4-Dimethylphenol	170	ug/Kg	1.0	U	U	Yes	
Bis(2-chloroethoxy)methane	170	ug/Kg	1.0	U	U	Yes	
2,4-Dichlorophenol	170	ug/Kg	1.0	U	U	Yes	
Naphthalene	170	ug/Kg	1.0	U	U	Yes	
4-Chloroaniline	170	ug/Kg	1.0	U	U	Yes	
Hexachlorobutadiene	170	ug/Kg	1.0	U	U	Yes	
Caprolactam	170	ug/Kg	1.0	U	U	Yes	
4-Chloro-3-methylphenol	170	ug/Kg	1.0	U	U	Yes	
2-Methylnaphthalene	170	ug/Kg	1.0	U	U	Yes	
Hexachlorocyclopentadiene	170	ug/Kg	1.0	U	U	Yes	
2,4,6-Trichlorophenol	170	ug/Kg	1.0	U	U	Yes	
2,4,5-Trichlorophenol	170	ug/Kg	1.0	U	U	Yes	
1,1'-Biphenyl	170	ug/Kg	1.0	U	U	Yes	
2-Chloronaphthalene	170	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
2-Nitroaniline	330	ug/Kg	1.0	U	U	Yes	
Dimethylphthalate	170	ug/Kg	1.0	U	U	Yes	
2,6-Dinitrotoluene	170	ug/Kg	1.0	U	U	Yes	
Acenaphthylene	170	ug/Kg	1.0	U	U	Yes	
3-Nitroaniline	330	ug/Kg	1.0	U	U	Yes	
Acenaphthene	170	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrophenol	330	ug/Kg	1.0	U	U	Yes	
4-Nitrophenol	330	ug/Kg	1.0	U	U	Yes	
Dibenzofuran	170	ug/Kg	1.0	U	U	Yes	
2,4-Dinitrotoluene	170	ug/Kg	1.0	U	U	Yes	
Diethylphthalate	170	ug/Kg	1.0	U	U	Yes	
Fluorene	170	ug/Kg	1.0	U	U	Yes	
4-Chlorophenyl-phenylether	170	ug/Kg	1.0	U	U	Yes	
4-Nitroaniline	330	ug/Kg	1.0	U	U	Yes	
4,6-Dinitro-2-methylphenol	330	ug/Kg	1.0	U	U	Yes	
N-Nitrosodiphenylamine	170	ug/Kg	1.0	U	U	Yes	
1,2,4,5-Tetrachlorobenzene	170	ug/Kg	1.0	U	U	Yes	
4-Bromophenyl-phenylether	170	ug/Kg	1.0	U	U	Yes	
Hexachlorobenzene	170	ug/Kg	1.0	U	U	Yes	
Atrazine	170	ug/Kg	1.0	U	U	Yes	
Pentachlorophenol	330	ug/Kg	1.0	U	U	Yes	
Phenanthrene	170	ug/Kg	1.0	U	U	Yes	
Anthracene	170	ug/Kg	1.0	U	U	Yes	
Carbazole	170	ug/Kg	1.0	U	U	Yes	
Di-n-butylphthalate	170	ug/Kg	1.0	U	U	Yes	
Fluoranthene	170	ug/Kg	1.0	U	U	Yes	
Pyrene	170	ug/Kg	1.0	U	U	Yes	
Butylbenzylphthalate	170	ug/Kg	1.0	U	U	Yes	
3,3'-Dichlorobenzidine	170	ug/Kg	1.0	U	U	Yes	
Benzo(a)anthracene	170	ug/Kg	1.0	U	U	Yes	
Chrysene	170	ug/Kg	1.0	U	U	Yes	
Bis(2-ethylhexyl)	170	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
phthalate	170	ug/Kg	1.0	U	U	Yes	
Di-n-octylphthalate	170	ug/Kg	1.0	U	U	Yes	
Benzo(b)fluoranthene	170	ug/Kg	1.0	U	U	Yes	
Benzo(k)fluoranthene	170	ug/Kg	1.0	U	U	Yes	
Benzo(a)pyrene	170	ug/Kg	1.0	U	U	Yes	
Indeno(1,2,3-cd)pyrene	170	ug/Kg	1.0	U	U	Yes	
Dibenzo(a,h)anthracene	170	ug/Kg	1.0	U	U	Yes	
Benzo(g,h,i)perylene	170	ug/Kg	1.0	U	U	Yes	
2,3,4,6-Tetrachlorophenol	170	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA5	Lab Code: MITKEM
Sample Number: VBLKT5	Method: VOA_Low_Med	Matrix: Soil	MA Number: DEFAULT
Sample Location:	pH: 7.0	Sample Date:	Sample Time:
% Moisture : 0.00000		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	5.0	ug/Kg	1.0	U	U	Yes	
Chloromethane	5.0	ug/Kg	1.0	U	U	Yes	
Vinyl chloride	5.0	ug/Kg	1.0	U	U	Yes	
Bromomethane	5.0	ug/Kg	1.0	U	U	Yes	
Chloroethane	5.0	ug/Kg	1.0	U	U	Yes	
Trichlorofluorom ethane	5.0	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethene	5.0	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	ug/Kg	1.0	U	U	Yes	
Acetone	10	ug/Kg	1.0	U	U	Yes	
Carbon disulfide	5.0	ug/Kg	1.0	U	U	Yes	
Methyl acetate	5.0	ug/Kg	1.0	U	U	Yes	
Methylene chloride	2.2	ug/Kg	1.0	J	J	Yes	
trans-1,2-Dichloroethene	5.0	ug/Kg	1.0	U	U	Yes	
Methyl tert-butyl ether	5.0	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethane	5.0	ug/Kg	1.0	U	U	Yes	
cis-1,2-Dichloroethene	5.0	ug/Kg	1.0	U	U	Yes	
2-Butanone	10	ug/Kg	1.0	U	U	Yes	
Bromochloromet hane	5.0	ug/Kg	1.0	U	U	Yes	
Chloroform	5.0	ug/Kg	1.0	U	U	Yes	
1,1,1-Trichloroethane	5.0	ug/Kg	1.0	U	U	Yes	
Cyclohexane	5.0	ug/Kg	1.0	U	U	Yes	
Carbon tetrachloride	5.0	ug/Kg	1.0	U	U	Yes	
Benzene	5.0	ug/Kg	1.0	U	U	Yes	
1,2-Dichloroethane	5.0	ug/Kg	1.0	U	U	Yes	
1,4-Dioxane	100	ug/Kg	1.0	U	U	Yes	
Trichloroethene	5.0	ug/Kg	1.0	U	U	Yes	
Methylcyclohexa ne	5.0	ug/Kg	1.0	U	U	Yes	
1,2-Dichloropropane	5.0	ug/Kg	1.0	U	U	Yes	
Bromodichlorom	5.0	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
ethane	5.0	ug/Kg	1.0	U	U	Yes	
cis-1,3-Dichloropropene	5.0	ug/Kg	1.0	U	U	Yes	
4-Methyl-2-pentanone	10	ug/Kg	1.0	U	U	Yes	
Toluene	5.0	ug/Kg	1.0	U	U	Yes	
trans-1,3-Dichloropropene	5.0	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloroethane	5.0	ug/Kg	1.0	U	U	Yes	
Tetrachloroethene	5.0	ug/Kg	1.0	U	U	Yes	
2-Hexanone	10	ug/Kg	1.0	U	U	Yes	
Dibromochloromethane	5.0	ug/Kg	1.0	U	U	Yes	
1,2-Dibromoethane	5.0	ug/Kg	1.0	U	U	Yes	
Chlorobenzene	5.0	ug/Kg	1.0	U	U	Yes	
Ethylbenzene	5.0	ug/Kg	1.0	U	U	Yes	
o-Xylene	5.0	ug/Kg	1.0	U	U	Yes	
m,p-Xylene	5.0	ug/Kg	1.0	U	U	Yes	
Styrene	5.0	ug/Kg	1.0	U	U	Yes	
Bromoform	5.0	ug/Kg	1.0	U	U	Yes	
Isopropylbenzene	5.0	ug/Kg	1.0	U	U	Yes	
1,1,2,2-Tetrachloroethane	5.0	ug/Kg	1.0	U	U	Yes	
1,3-Dichlorobenzene	5.0	ug/Kg	1.0	U	U	Yes	
1,4-Dichlorobenzene	5.0	ug/Kg	1.0	U	U	Yes	
1,2-Dichlorobenzene	5.0	ug/Kg	1.0	U	U	Yes	
1,2-Dibromo-3-chloropropane	5.0	ug/Kg	1.0	U	U	Yes	
1,2,4-Trichlorobenzene	5.0	ug/Kg	1.0	U	U	Yes	
1,2,3-Trichlorobenzene	5.0	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA5	Lab Code: MITKEM
Sample Number: VBLKX5	Method: VOA_Low_Med	Matrix: Soil	MA Number: DEFAULT
Sample Location:	pH: 7.0	Sample Date:	Sample Time:
% Moisture : 0.00000		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	5.0	ug/Kg	1.0	U	U	Yes	
Chloromethane	5.0	ug/Kg	1.0	U	U	Yes	
Vinyl chloride	5.0	ug/Kg	1.0	U	U	Yes	
Bromomethane	5.0	ug/Kg	1.0	U	U	Yes	
Chloroethane	5.0	ug/Kg	1.0	U	U	Yes	
Trichlorofluorom ethane	5.0	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethene	5.0	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	ug/Kg	1.0	U	U	Yes	
Acetone	10	ug/Kg	1.0	U	U	Yes	
Carbon disulfide	5.0	ug/Kg	1.0	U	U	Yes	
Methyl acetate	5.0	ug/Kg	1.0	U	U	Yes	
Methylene chloride	5.0	ug/Kg	1.0	U	U	Yes	
trans-1,2-Dichloroethene	5.0	ug/Kg	1.0	U	U	Yes	
Methyl tert-butyl ether	5.0	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethane	5.0	ug/Kg	1.0	U	U	Yes	
cis-1,2-Dichloroethene	5.0	ug/Kg	1.0	U	U	Yes	
2-Butanone	10	ug/Kg	1.0	U	U	Yes	
Bromochloromet hane	5.0	ug/Kg	1.0	U	U	Yes	
Chloroform	5.0	ug/Kg	1.0	U	U	Yes	
1,1,1-Trichloroethane	5.0	ug/Kg	1.0	U	U	Yes	
Cyclohexane	5.0	ug/Kg	1.0	U	U	Yes	
Carbon tetrachloride	5.0	ug/Kg	1.0	U	U	Yes	
Benzene	5.0	ug/Kg	1.0	U	U	Yes	
1,2-Dichloroethane	5.0	ug/Kg	1.0	U	U	Yes	
1,4-Dioxane	100	ug/Kg	1.0	U	U	Yes	
Trichloroethene	5.0	ug/Kg	1.0	U	U	Yes	
Methylcyclohexa ne	5.0	ug/Kg	1.0	U	U	Yes	
1,2-Dichloropropane	5.0	ug/Kg	1.0	U	U	Yes	
Bromodichlorom	5.0	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
ethane	5.0	ug/Kg	1.0	U	U	Yes	
cis-1,3-Dichloropropene	5.0	ug/Kg	1.0	U	U	Yes	
4-Methyl-2-pentanone	10	ug/Kg	1.0	U	U	Yes	
Toluene	5.0	ug/Kg	1.0	U	U	Yes	
trans-1,3-Dichloropropene	5.0	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloroethane	5.0	ug/Kg	1.0	U	U	Yes	
Tetrachloroethene	5.0	ug/Kg	1.0	U	U	Yes	
2-Hexanone	10	ug/Kg	1.0	U	U	Yes	
Dibromochloromethane	5.0	ug/Kg	1.0	U	U	Yes	
1,2-Dibromoethane	5.0	ug/Kg	1.0	U	U	Yes	
Chlorobenzene	5.0	ug/Kg	1.0	U	U	Yes	
Ethylbenzene	5.0	ug/Kg	1.0	U	U	Yes	
o-Xylene	5.0	ug/Kg	1.0	U	U	Yes	
m,p-Xylene	5.0	ug/Kg	1.0	U	U	Yes	
Styrene	5.0	ug/Kg	1.0	U	U	Yes	
Bromoform	5.0	ug/Kg	1.0	U	U	Yes	
Isopropylbenzene	5.0	ug/Kg	1.0	U	U	Yes	
1,1,2,2-Tetrachloroethane	5.0	ug/Kg	1.0	U	U	Yes	
1,3-Dichlorobenzene	5.0	ug/Kg	1.0	U	U	Yes	
1,4-Dichlorobenzene	5.0	ug/Kg	1.0	U	U	Yes	
1,2-Dichlorobenzene	5.0	ug/Kg	1.0	U	U	Yes	
1,2-Dibromo-3-chloropropane	5.0	ug/Kg	1.0	U	U	Yes	
1,2,4-Trichlorobenzene	5.0	ug/Kg	1.0	U	U	Yes	
1,2,3-Trichlorobenzene	5.0	ug/Kg	1.0	U	U	Yes	

Case No: 43638	Contract: EPW11033	SDG No: E0AA5	Lab Code: MITKEM
Sample Number: VHBLKX5	Method: VOA_Low_Med	Matrix: Soil	MA Number: DEFAULT
Sample Location:	pH: 7.0	Sample Date:	Sample Time:
% Moisture : 0.00000		% Solids :	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	5.0	ug/Kg	1.0	U	U	Yes	
Chloromethane	5.0	ug/Kg	1.0	U	U	Yes	
Vinyl chloride	5.0	ug/Kg	1.0	U	U	Yes	
Bromomethane	5.0	ug/Kg	1.0	U	U	Yes	
Chloroethane	5.0	ug/Kg	1.0	U	U	Yes	
Trichlorofluorom ethane	5.0	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethene	5.0	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	ug/Kg	1.0	U	U	Yes	
Acetone	10	ug/Kg	1.0	U	U	Yes	
Carbon disulfide	5.0	ug/Kg	1.0	U	U	Yes	
Methyl acetate	5.0	ug/Kg	1.0	U	U	Yes	
Methylene chloride	5.0	ug/Kg	1.0	U	U	Yes	
trans-1,2-Dichloroethene	5.0	ug/Kg	1.0	U	U	Yes	
Methyl tert-butyl ether	5.0	ug/Kg	1.0	U	U	Yes	
1,1-Dichloroethane	5.0	ug/Kg	1.0	U	U	Yes	
cis-1,2-Dichloroethene	5.0	ug/Kg	1.0	U	U	Yes	
2-Butanone	10	ug/Kg	1.0	U	U	Yes	
Bromochloromet hane	5.0	ug/Kg	1.0	U	U	Yes	
Chloroform	5.0	ug/Kg	1.0	U	U	Yes	
1,1,1-Trichloroethane	5.0	ug/Kg	1.0	U	U	Yes	
Cyclohexane	5.0	ug/Kg	1.0	U	U	Yes	
Carbon tetrachloride	5.0	ug/Kg	1.0	U	U	Yes	
Benzene	5.0	ug/Kg	1.0	U	U	Yes	
1,2-Dichloroethane	5.0	ug/Kg	1.0	U	U	Yes	
1,4-Dioxane	100	ug/Kg	1.0	U	U	Yes	
Trichloroethene	5.0	ug/Kg	1.0	U	U	Yes	
Methylcyclohexa ne	5.0	ug/Kg	1.0	U	U	Yes	
1,2-Dichloropropane	5.0	ug/Kg	1.0	U	U	Yes	
Bromodichlorom	5.0	ug/Kg	1.0	U	U	Yes	

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
ethane	5.0	ug/Kg	1.0	U	U	Yes	
cis-1,3-Dichloropropene	5.0	ug/Kg	1.0	U	U	Yes	
4-Methyl-2-pentanone	10	ug/Kg	1.0	U	U	Yes	
Toluene	5.0	ug/Kg	1.0	U	U	Yes	
trans-1,3-Dichloropropene	5.0	ug/Kg	1.0	U	U	Yes	
1,1,2-Trichloroethane	5.0	ug/Kg	1.0	U	U	Yes	
Tetrachloroethene	5.0	ug/Kg	1.0	U	U	Yes	
2-Hexanone	10	ug/Kg	1.0	U	U	Yes	
Dibromochloromethane	5.0	ug/Kg	1.0	U	U	Yes	
1,2-Dibromoethane	5.0	ug/Kg	1.0	U	U	Yes	
Chlorobenzene	5.0	ug/Kg	1.0	U	U	Yes	
Ethylbenzene	5.0	ug/Kg	1.0	U	U	Yes	
o-Xylene	5.0	ug/Kg	1.0	U	U	Yes	
m,p-Xylene	5.0	ug/Kg	1.0	U	U	Yes	
Styrene	5.0	ug/Kg	1.0	U	U	Yes	
Bromoform	5.0	ug/Kg	1.0	U	U	Yes	
Isopropylbenzene	5.0	ug/Kg	1.0	U	U	Yes	
1,1,2,2-Tetrachloroethane	5.0	ug/Kg	1.0	U	U	Yes	
1,3-Dichlorobenzene	5.0	ug/Kg	1.0	U	U	Yes	
1,4-Dichlorobenzene	5.0	ug/Kg	1.0	U	U	Yes	
1,2-Dichlorobenzene	5.0	ug/Kg	1.0	U	U	Yes	
1,2-Dibromo-3-chloropropane	5.0	ug/Kg	1.0	U	U	Yes	
1,2,4-Trichlorobenzene	5.0	ug/Kg	1.0	U	U	Yes	
1,2,3-Trichlorobenzene	5.0	ug/Kg	1.0	U	U	Yes	

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Lab MITKEM(Mitkem Laboratories) **SDG** E0AA5 **Case** 43638 **Contract** EPW11033 **Region** 5 **DDTID** 179910 **SOW** SOM01.2

Tentatively Identified Compounds

BNA Sample=SBLK4R Location= Matrix=Soil Level=Low

CAS No.	Compound Name	RT (mins)	Concentration		Lab Qualifier
	Unknown-01	2.827	710	ug/Kg	J
	Unknown-02	2.899	110	ug/Kg	J
	Unknown-03	2.930	300	ug/Kg	J
	Unknown-04	2.951	170	ug/Kg	J
	Unknown-05	3.013	450	ug/Kg	J
	Unknown-06	3.044	620	ug/Kg	J
	Unknown-07	3.075	68	ug/Kg	J
	Unknown-08	3.913	120	ug/Kg	J
	Unknown-09	5.559	360	ug/Kg	J

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Lab MITKEM(Mitkem Laboratories) **SDG** E0AA5 **Case** 43638 **Contract** EPW11033 **Region** 5 **DDTID** 179910 **SOW** SOM01.2

Tentatively Identified Compounds

BNA Sample=E0AC5 Location=CC-SD04-(6-12)-072513 Matrix=Soil Level=Low

CAS No.	Compound Name	RT (mins)	Concentration		Lab Qualifier
	Unknown-07	3.623	320	ug/Kg	J
	Unknown-08	3.727	140	ug/Kg	J
	Unknown-09	4.079	85	ug/Kg	J
	Unknown-10	4.420	130	ug/Kg	J
	Unknown-11	5.373	190	ug/Kg	J
	Unknown-13	6.397	120	ug/Kg	J
	Unknown-14	6.749	280	ug/Kg	J
	Unknown-15	11.200	290	ug/Kg	J
	Unknown-16	12.814	310	ug/Kg	J
	Unknown-17	12.939	150	ug/Kg	J

National Functional Guidelines Report #09

Lab MITKEM(Mitkem Laboratories) **SDG** E0AA5 **Case** 43638 **Contract** EPW11033 **Region** 5 **DDTID** 179910 **SOW** SOM01.2

Tentatively Identified Compounds

BNA Sample=E0AC4 Location=CC-SD04-(0-6)-072513D Matrix=Soil Level=Low

CAS No.	Compound Name	RT (mins)	Concentration		Lab Qualifier
	Unknown-07	3.416	120	ug/Kg	J
	Unknown-08	3.623	180	ug/Kg	J
	Unknown-09	3.727	140	ug/Kg	J
	Unknown-10	4.420	120	ug/Kg	J
	Unknown-11	5.373	210	ug/Kg	J
	Unknown-13	6.759	330	ug/Kg	J
	Unknown-14	7.422	150	ug/Kg	J
	Unknown-15	8.892	110	ug/Kg	J
	Unknown-16	10.216	100	ug/Kg	J
	Unknown-17	11.200	270	ug/Kg	J
	Unknown-18	12.814	320	ug/Kg	J
	Unknown-19	12.939	140	ug/Kg	J

National Functional Guidelines Report #09

Lab MITKEM(Mitkem Laboratories) **SDG** E0AA5 **Case** 43638 **Contract** EPW11033 **Region** 5 **DDTID** 179910 **SOW** SOM01.2

Tentatively Identified Compounds

BNA Sample=E0AC3 Location=CC-SD04-(0-6)-072513 Matrix=Soil Level=Low

CAS No.	Compound Name	RT (mins)	Concentration		Lab Qualifier
	Unknown-07	3.623	290	ug/Kg	J
	Unknown-08	3.727	150	ug/Kg	J
	Unknown-09	4.420	250	ug/Kg	J
	Unknown-10	4.700	120	ug/Kg	J
	Unknown-11	5.373	300	ug/Kg	J
	Unknown-13	6.760	440	ug/Kg	J
143-07-7	Dodecanoic acid	7.143	98	ug/Kg	NJ
	Unknown-14	10.217	100	ug/Kg	J
	Unknown-15	11.200	420	ug/Kg	J
	Unknown-16	11.500	100	ug/Kg	J
	Unknown-17	12.814	540	ug/Kg	J
	Unknown-18	12.939	140	ug/Kg	J

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Lab MITKEM(Mitkem Laboratories) **SDG** E0AA5 **Case** 43638 **Contract** EPW11033 **Region** 5 **DDTID** 179910 **SOW** SOM01.2

Tentatively Identified Compounds

BNA Sample=E0AC2 Location=CC-SD05-(6-12)-072413 Matrix=Soil Level=Low

CAS No.	Compound Name	RT (mins)	Concentration		Lab Qualifier
	Unknown-07	3.623	140	ug/Kg	J
	Unknown-08	4.420	190	ug/Kg	J
	Unknown-09	4.700	87	ug/Kg	J
	Unknown-10	5.373	270	ug/Kg	J
	Unknown-12	6.397	82	ug/Kg	J
	Unknown-13	6.760	440	ug/Kg	J
	Unknown-14	10.403	81	ug/Kg	J
	Unknown-15	11.200	330	ug/Kg	J
112-84-5	13-Docosenamide, (Z)-	12.814	300	ug/Kg	NJ
	Unknown-16	12.939	92	ug/Kg	J

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Lab MITKEM(Mitkem Laboratories) **SDG** E0AA5 **Case** 43638 **Contract** EPW11033 **Region** 5 **DDTID** 179910 **SOW** SOM01.2

Tentatively Identified Compounds

BNA Sample=E0AC1 Location=CC-SD05-(0-6)-072413 Matrix=Soil Level=Low

CAS No.	Compound Name	RT (mins)	Concentration		Lab Qualifier
	Unknown-07	3.416	130	ug/Kg	J
	Unknown-08	3.623	230	ug/Kg	J
	Unknown-09	3.727	170	ug/Kg	J
	Unknown-10	4.420	91	ug/Kg	J
	Unknown-11	5.373	200	ug/Kg	J
	Unknown-13	6.408	120	ug/Kg	J
	Unknown-14	6.760	410	ug/Kg	J
	Unknown-15	7.080	96	ug/Kg	J
	Unknown-16	9.979	280	ug/Kg	J
	Unknown-17	10.103	100	ug/Kg	J
	Unknown-18	10.217	84	ug/Kg	J
111-06-8	Hexadecanoic acid, butyl ester	10.413	260	ug/Kg	NJ
80-05-7	Phenol, 4,4'-(1-methylethylidene)bis-	10.455	160	ug/Kg	NJ
	Unknown-19	11.200	180	ug/Kg	J
646-13-9	Octadecanoic acid, 2-methylpropyl ester	11.272	210	ug/Kg	NJ
	Unknown-20	11.728	87	ug/Kg	J
	Unknown-21	12.814	140	ug/Kg	J
	Unknown-22	12.939	140	ug/Kg	J

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Lab MITKEM(Mitkem Laboratories) **SDG** E0AA5 **Case** 43638 **Contract** EPW11033 **Region** 5 **DDTID** 179910 **SOW** SOM01.2

Tentatively Identified Compounds

BNA Sample=E0AC0 Location=CC-SD06-(6-12)-072413 Matrix=Soil Level=Low

CAS No.	Compound Name	RT (mins)	Concentration		Lab Qualifier
	Unknown-07	3.416	230	ug/Kg	J
	Unknown-08	3.623	220	ug/Kg	J
	Unknown-09	3.727	140	ug/Kg	J
	Unknown-10	4.420	90	ug/Kg	J
	Unknown-11	5.373	200	ug/Kg	J
	Unknown-13	6.749	400	ug/Kg	J
	Unknown-14	9.968	310	ug/Kg	J
	Unknown-15	10.103	110	ug/Kg	J
111-06-8	Hexadecanoic acid, butyl ester	10.413	200	ug/Kg	NJ
	Unknown-16	10.455	130	ug/Kg	J
1000130-97-9	E-15-Heptadecenal	10.879	170	ug/Kg	NJ
	Unknown-17	11.262	200	ug/Kg	J
	Unknown-18	11.717	160	ug/Kg	J
	Unknown-19	12.814	140	ug/Kg	J
	Unknown-20	12.939	150	ug/Kg	J
	Unknown-21	18.352	480	ug/Kg	J

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Lab MITKEM(Mitkem Laboratories) **SDG** E0AA5 **Case** 43638 **Contract** EPW11033 **Region** 5 **DDTID** 179910 **SOW** SOM01.2

Tentatively Identified Compounds

BNA Sample=E0AB9 Location=CC-SD06-(0-6)-072413 Matrix=Soil Level=Low

CAS No.	Compound Name	RT (mins)	Concentration		Lab Qualifier
	Unknown-07	3.623	250	ug/Kg	J
	Unknown-08	3.727	110	ug/Kg	J
	Unknown-09	4.420	320	ug/Kg	J
	Unknown-10	4.700	140	ug/Kg	J
	Unknown-11	5.373	260	ug/Kg	J
	Unknown-13	6.408	90	ug/Kg	J
	Unknown-14	6.759	510	ug/Kg	J
	Unknown-15	8.964	140	ug/Kg	J
111-06-8	Hexadecanoic acid, butyl ester	10.413	340	ug/Kg	NJ
80-05-7	Phenol, 4,4'-(1-methylethylidene)bis-	10.454	160	ug/Kg	NJ
	Unknown-16	11.200	410	ug/Kg	J
	Unknown-17	11.262	460	ug/Kg	J
	Unknown-18	12.814	440	ug/Kg	J
	Unknown-19	12.939	170	ug/Kg	J
	Unknown-20	13.259	250	ug/Kg	J
	Unknown-21	14.212	120	ug/Kg	J
1000214-20-7	Stigmasterol, 22,23-dihydro-	16.002	660	ug/Kg	NJ
	Unknown-22	16.509	240	ug/Kg	J
	Unknown-23	16.572	440	ug/Kg	J

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Lab MITKEM(Mitkem Laboratories) **SDG** E0AA5 **Case** 43638 **Contract** EPW11033 **Region** 5 **DDTID** 179910 **SOW** SOM01.2

Tentatively Identified Compounds

BNA Sample=E0AB9 Location=CC-SD06-(0-6)-072413 Matrix=Soil Level=Low

CAS No.	Compound Name	RT (mins)	Concentration		Lab Qualifier
	Unknown-24	16.903	510	ug/Kg	J
	Unknown-25	18.352	260	ug/Kg	J

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Lab MITKEM(Mitkem Laboratories) **SDG** E0AA5 **Case** 43638 **Contract** EPW11033 **Region** 5 **DDTID** 179910 **SOW** SOM01.2

Tentatively Identified Compounds

BNA Sample=E0AB8 Location=CC-SD09-(6-12)-072413 Matrix=Soil Level=Low

CAS No.	Compound Name	RT (mins)	Concentration		Lab Qualifier
	Unknown-07	3.624	190	ug/Kg	J
	Unknown-08	4.420	110	ug/Kg	J
	Unknown-09	5.373	220	ug/Kg	J
	Unknown-11	6.749	370	ug/Kg	J
	Unknown-12	9.979	110	ug/Kg	J
	Unknown-13	10.206	100	ug/Kg	J
	Unknown-14	11.200	310	ug/Kg	J
	Unknown-15	11.293	87	ug/Kg	J
	Unknown-16	12.815	320	ug/Kg	J
	Unknown-17	12.939	97	ug/Kg	J
	Unknown-18	16.913	330	ug/Kg	J

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Lab MITKEM(Mitkem Laboratories) **SDG** E0AA5 **Case** 43638 **Contract** EPW11033 **Region** 5 **DDTID** 179910 **SOW** SOM01.2

Tentatively Identified Compounds

BNA Sample=E0AB7 Location=CC-SD09-(0-6)-072413 Matrix=Soil Level=Low

CAS No.	Compound Name	RT (mins)	Concentration		Lab Qualifier
	Unknown-07	3.624	320	ug/Kg	J
	Unknown-08	3.727	210	ug/Kg	J
	Unknown-09	3.893	130	ug/Kg	J
	Unknown-10	4.421	290	ug/Kg	J
	Unknown-11	4.700	160	ug/Kg	J
	Unknown-12	5.135	110	ug/Kg	J
	Unknown-13	5.373	290	ug/Kg	J
	Unknown-15	6.408	130	ug/Kg	J
	Unknown-16	6.760	520	ug/Kg	J
	Unknown-17	8.892	120	ug/Kg	J
	Unknown-18	10.103	170	ug/Kg	J
	Unknown-19	10.455	150	ug/Kg	J
	Unknown-20	11.200	640	ug/Kg	J
	Unknown-21	11.303	140	ug/Kg	J
	Unknown-22	11.500	130	ug/Kg	J
	Unknown-23	11.717	130	ug/Kg	J
	Unknown-24	12.483	130	ug/Kg	J
	Unknown-25	12.815	510	ug/Kg	J
	Unknown-26	12.939	200	ug/Kg	J
	Unknown-27	14.212	120	ug/Kg	J

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Lab MITKEM(Mitkem Laboratories) **SDG** E0AA5 **Case** 43638 **Contract** EPW11033 **Region** 5 **DDTID** 179910 **SOW** SOM01.2

Tentatively Identified Compounds

BNA Sample=E0AB7 Location=CC-SD09-(0-6)-072413 Matrix=Soil Level=Low

CAS No.	Compound Name	RT (mins)	Concentration		Lab Qualifier
	Unknown-28	16.002	310	ug/Kg	J
58801-23-3	Hop-22(29)-en-3.beta.-ol	16.903	3400	ug/Kg	NJ

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Lab MITKEM(Mitkem Laboratories) **SDG** E0AA5 **Case** 43638 **Contract** EPW11033 **Region** 5 **DDTID** 179910 **SOW** SOM01.2

Tentatively Identified Compounds

BNA Sample=E0AB6 Location=CC-SD07-(6-12)-072413 Matrix=Soil Level=Low

CAS No.	Compound Name	RT (mins)	Concentration		Lab Qualifier
	Unknown-08	3.624	230	ug/Kg	J
	Unknown-09	3.727	190	ug/Kg	J
	Unknown-10	4.421	200	ug/Kg	J
	Unknown-11	5.135	100	ug/Kg	J
	Unknown-12	5.373	250	ug/Kg	J
	Unknown-14	6.408	120	ug/Kg	J
	Unknown-15	6.749	450	ug/Kg	J
	Unknown-16	9.979	190	ug/Kg	J
80-05-7	Phenol, 4,4'-(1-methylethylidene)bis-	10.455	150	ug/Kg	NJ
	Unknown-17	11.200	370	ug/Kg	J
	Unknown-18	11.303	190	ug/Kg	J
112-84-5	13-Docosenamide, (Z)-	12.815	410	ug/Kg	NJ
	Unknown-19	18.352	370	ug/Kg	J

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Lab MITKEM(Mitkem Laboratories) **SDG** E0AA5 **Case** 43638 **Contract** EPW11033 **Region** 5 **DDTID** 179910 **SOW** SOM01.2

Tentatively Identified Compounds

BNA Sample=E0AB5 Location=CC-SD07-(0-6)-072413 Matrix=Soil Level=Low

CAS No.	Compound Name	RT (mins)	Concentration		Lab Qualifier
	Unknown-07	3.623	190	ug/Kg	J
	Unknown-08	3.727	130	ug/Kg	J
	Unknown-09	4.141	100	ug/Kg	J
	Unknown-10	4.420	120	ug/Kg	J
	Unknown-11	5.373	180	ug/Kg	J
	Unknown-13	6.760	340	ug/Kg	J
	Unknown-14	9.978	160	ug/Kg	J
	Unknown-15	10.103	87	ug/Kg	J
80-05-7	Phenol, 4,4'-(1-methylethylidene)bis-	10.455	170	ug/Kg	NJ
	Unknown-16	11.200	460	ug/Kg	J
112-84-5	13-Docosenamide, (Z)-	12.814	230	ug/Kg	NJ
	Unknown-17	13.259	110	ug/Kg	J

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Lab MITKEM(Mitkem Laboratories) **SDG** E0AA5 **Case** 43638 **Contract** EPW11033 **Region** 5 **DDTID** 179910 **SOW** SOM01.2

Tentatively Identified Compounds

BNA Sample=E0AB4 Location=CC-SD08-(6-12)-072413 Matrix=Soil Level=Low

CAS No.	Compound Name	RT (mins)	Concentration		Lab Qualifier
	Unknown-07	3.623	140	ug/Kg	J
	Unknown-08	3.727	120	ug/Kg	J
	Unknown-09	4.420	100	ug/Kg	J
	Unknown-10	5.135	87	ug/Kg	J
	Unknown-11	5.373	180	ug/Kg	J
	Unknown-13	6.749	340	ug/Kg	J
	Unknown-14	8.933	88	ug/Kg	J
	Unknown-15	9.978	120	ug/Kg	J
80-05-7	Phenol, 4,4'-(1-methylethylidene)bis-	10.455	290	ug/Kg	NJ
	Unknown-16	11.200	240	ug/Kg	J
112-84-5	13-Docosenamide, (Z)-	12.814	140	ug/Kg	NJ

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Lab MITKEM(Mitkem Laboratories) **SDG** E0AA5 **Case** 43638 **Contract** EPW11033 **Region** 5 **DDTID** 179910 **SOW** SOM01.2

Tentatively Identified Compounds

BNA Sample=E0AB3 Location=CC-SD08-(0-6)-072413 Matrix=Soil Level=Low

CAS No.	Compound Name	RT (mins)	Concentration		Lab Qualifier
	Unknown-07	3.624	200	ug/Kg	J
	Unknown-08	3.727	110	ug/Kg	J
	Unknown-09	4.421	190	ug/Kg	J
	Unknown-10	4.710	130	ug/Kg	J
	Unknown-11	5.373	270	ug/Kg	J
	Unknown-13	6.408	100	ug/Kg	J
	Unknown-14	6.760	490	ug/Kg	J
	Unknown-15	7.991	120	ug/Kg	J
	Unknown-16	9.896	120	ug/Kg	J
	Unknown-17	9.968	110	ug/Kg	J
80-05-7	Phenol, 4,4'-(1-methylethylidene)bis-	10.455	220	ug/Kg	NJ
	Unknown-18	11.200	600	ug/Kg	J
	Unknown-19	11.283	130	ug/Kg	J
	Unknown-20	11.717	120	ug/Kg	J
	Unknown-21	12.815	480	ug/Kg	J
	Unknown-22	12.939	130	ug/Kg	J

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Lab MITKEM(Mitkem Laboratories) **SDG** E0AA5 **Case** 43638 **Contract** EPW11033 **Region** 5 **DDTID** 179910 **SOW** SOM01.2

Tentatively Identified Compounds

BNA Sample=E0AB2 Location=CC-S014-(0-12)-072413 Matrix=Soil Level=Low

CAS No.	Compound Name	RT (mins)	Concentration		Lab Qualifier
	Unknown-07	3.416	85	ug/Kg	J
	Unknown-08	3.623	85	ug/Kg	J
	Unknown-09	3.727	71	ug/Kg	J
	Unknown-10	4.420	81	ug/Kg	J
	Unknown-11	5.114	88	ug/Kg	J
	Unknown-12	5.373	140	ug/Kg	J
	Unknown-14	6.408	73	ug/Kg	J
	Unknown-15	6.749	250	ug/Kg	J
	Unknown-16	7.101	76	ug/Kg	J
	Unknown-17	7.422	85	ug/Kg	J
111-06-8	Hexadecanoic acid, butyl ester	10.413	150	ug/Kg	NJ
	Unknown-18	11.200	300	ug/Kg	J
	Unknown-19	11.272	130	ug/Kg	J
	Unknown-20	11.717	100	ug/Kg	J
	Unknown-21	12.814	170	ug/Kg	J
	Unknown-22	15.361	380	ug/Kg	J

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Lab MITKEM(Mitkem Laboratories) **SDG** E0AA5 **Case** 43638 **Contract** EPW11033 **Region** 5 **DDTID** 179910 **SOW** SOM01.2

Tentatively Identified Compounds

BNA Sample=E0AB1 Location=CC-SO13-(0-12)-072413D Matrix=Soil Level=Low

CAS No.	Compound Name	RT (mins)	Concentration		Lab Qualifier
	Unknown-07	3.416	76	ug/Kg	J
	Unknown-08	3.623	110	ug/Kg	J
	Unknown-09	3.727	74	ug/Kg	J
	Unknown-10	4.420	76	ug/Kg	J
	Unknown-11	4.979	82	ug/Kg	J
	Unknown-12	5.135	92	ug/Kg	J
	Unknown-13	5.373	180	ug/Kg	J
	Unknown-15	6.397	130	ug/Kg	J
	Unknown-16	6.749	380	ug/Kg	J
	Unknown-17	11.200	180	ug/Kg	J
	Unknown-18	11.717	72	ug/Kg	J
	Unknown-19	12.483	72	ug/Kg	J
	Unknown-20	12.814	130	ug/Kg	J
	Unknown-21	14.212	130	ug/Kg	J
	Unknown-22	15.371	8500	ug/Kg	J
	Unknown-23	15.712	460	ug/Kg	J
	Unknown-24	16.013	370	ug/Kg	J
	Unknown-25	16.199	440	ug/Kg	J
	Unknown-26	16.416	330	ug/Kg	J
	Unknown-27	16.986	1800	ug/Kg	J

National Functional Guidelines Report #09

Lab MITKEM(Mitkem Laboratories) **SDG** E0AA5 **Case** 43638 **Contract** EPW11033 **Region** 5 **DDTID** 179910 **SOW** SOM01.2

Tentatively Identified Compounds

BNA Sample=E0AB0 Location=CC-S013-(0-12)-072413 Matrix=Soil Level=Low

CAS No.	Compound Name	RT (mins)	Concentration		Lab Qualifier
	Unknown-07	3.241	850	ug/Kg	J
	Unknown-08	3.623	140	ug/Kg	J
	Unknown-09	3.727	120	ug/Kg	J
	Unknown-10	3.934	72	ug/Kg	J
	Unknown-11	4.979	73	ug/Kg	J
	Unknown-12	5.373	140	ug/Kg	J
	Unknown-14	6.749	240	ug/Kg	J
	Unknown-15	7.080	73	ug/Kg	J
	Unknown-16	11.200	190	ug/Kg	J
	Unknown-17	11.728	110	ug/Kg	J
	Unknown-18	12.815	150	ug/Kg	J
	Unknown-19	14.212	100	ug/Kg	J
	Unknown-20	15.371	7800	ug/Kg	J
	Unknown-21	15.702	220	ug/Kg	J
	Unknown-22	16.002	260	ug/Kg	J
	Unknown-23	16.199	420	ug/Kg	J
	Unknown-24	16.427	260	ug/Kg	J
	Unknown-25	16.996	1600	ug/Kg	J

National Functional Guidelines Report #09

Lab MITKEM(Mitkem Laboratories) **SDG** E0AA5 **Case** 43638 **Contract** EPW11033 **Region** 5 **DDTID** 179910 **SOW** SOM01.2

Tentatively Identified Compounds

BNA Sample=E0AA9 Location=CC-SO02-(0-12)-072413 Matrix=Soil Level=Low

CAS No.	Compound Name	RT (mins)	Concentration		Lab Qualifier
	Unknown-07	3.416	100	ug/Kg	J
	Unknown-08	3.623	190	ug/Kg	J
	Unknown-09	3.727	140	ug/Kg	J
	Unknown-10	4.420	100	ug/Kg	J
	Unknown-11	5.373	140	ug/Kg	J
	Unknown-13	6.408	91	ug/Kg	J
	Unknown-14	6.759	320	ug/Kg	J
	Unknown-15	7.422	74	ug/Kg	J
	Unknown-16	11.200	300	ug/Kg	J
	Unknown-17	11.717	89	ug/Kg	J
	Unknown-18	12.814	150	ug/Kg	J
	Unknown-19	14.212	120	ug/Kg	J

National Functional Guidelines Report #09

Lab MITKEM(Mitkem Laboratories) **SDG** E0AA5 **Case** 43638 **Contract** EPW11033 **Region** 5 **DDTID** 179910 **SOW** SOM01.2

Tentatively Identified Compounds

BNA Sample=E0AA8 Location=CC-SO01-(0-12)-072413 Matrix=Soil Level=Low

CAS No.	Compound Name	RT (mins)	Concentration		Lab Qualifier
	Unknown-07	3.240	800	ug/Kg	J
	Unknown-08	3.416	92	ug/Kg	J
	Unknown-09	3.623	110	ug/Kg	J
	Unknown-10	3.727	120	ug/Kg	J
	Unknown-11	5.373	170	ug/Kg	J
	Unknown-13	6.397	78	ug/Kg	J
	Unknown-14	6.749	300	ug/Kg	J
111-06-8	Hexadecanoic acid, butyl ester	10.413	170	ug/Kg	NJ
	Unknown-15	11.200	90	ug/Kg	J
	Unknown-16	11.262	130	ug/Kg	J
	Unknown-17	11.717	75	ug/Kg	J
	Unknown-18	12.814	76	ug/Kg	J
	Unknown-19	13.021	150	ug/Kg	J
	Unknown-20	13.280	480	ug/Kg	J
	Unknown-21	15.361	150	ug/Kg	J
	Unknown-22	16.002	280	ug/Kg	J

National Functional Guidelines Report #09

Lab MITKEM(Mitkem Laboratories) **SDG** E0AA5 **Case** 43638 **Contract** EPW11033 **Region** 5 **DDTID** 179910 **SOW** SOM01.2

Tentatively Identified Compounds

BNA Sample=E0AA6 Location=CC-SO12-(0-12)-072313 Matrix=Soil Level=Low

CAS No.	Compound Name	RT (mins)	Concentration		Lab Qualifier
	Unknown-06	3.241	730	ug/Kg	J
	Unknown-07	3.623	89	ug/Kg	J
	Unknown-08	4.420	120	ug/Kg	J
	Unknown-09	5.135	76	ug/Kg	J
	Unknown-10	5.373	170	ug/Kg	J
	Unknown-12	6.397	76	ug/Kg	J
	Unknown-13	6.749	280	ug/Kg	J
	Unknown-14	7.184	86	ug/Kg	J
	Unknown-15	11.200	140	ug/Kg	J
	Unknown-16	12.815	150	ug/Kg	J
	Unknown-17	13.022	85	ug/Kg	J
	Unknown-18	13.280	450	ug/Kg	J
	Unknown-19	14.212	85	ug/Kg	J
	Unknown-20	14.926	150	ug/Kg	J
	Unknown-21	15.381	17000	ug/Kg	J
	Unknown-22	16.199	810	ug/Kg	J
	Unknown-23	16.416	350	ug/Kg	J
	Unknown-24	16.996	3000	ug/Kg	J

National Functional Guidelines Report #09

Lab MITKEM(Mitkem Laboratories) **SDG** E0AA5 **Case** 43638 **Contract** EPW11033 **Region** 5 **DDTID** 179910 **SOW** SOM01.2

Tentatively Identified Compounds

BNA Sample=E0AA5 Location=CC-SO08-(12-24)-072313 Matrix=Soil Level=Low

CAS No.	Compound Name	RT (mins)	Concentration		Lab Qualifier
	Unknown-08	3.623	170	ug/Kg	J
	Unknown-09	3.727	100	ug/Kg	J
	Unknown-10	4.420	120	ug/Kg	J
	Unknown-11	5.135	100	ug/Kg	J
	Unknown-12	5.373	220	ug/Kg	J
	Unknown-14	6.408	100	ug/Kg	J
	Unknown-15	6.760	330	ug/Kg	J
	Unknown-16	11.200	250	ug/Kg	J
	Unknown-17	12.742	170	ug/Kg	J
	Unknown-18	12.815	270	ug/Kg	J
	Unknown-19	15.506	520	ug/Kg	J
	Unknown-20	15.713	240	ug/Kg	J

Regional Transmittal Form

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE:

SUBJECT: Review of Data
Received for Review on 8 Aug 2013

FROM: Timothy Prendiville, Supervisor (~~SR-6J~~)
Superfund Contract Management Section

TO: Data User: Weston

We have reviewed the data for the following case:

SITE NAME: Castle Construction - Il

CASE NUMBER: 43638 SDG NUMBER: E0AA5

Number and Type of Samples: 20 Soil Samples

Sample Numbers: E0AA5-A6; A8-A9; B0-B9; C0-C5

Laboratory: Mitkem Hrs for Review:

Following are our findings:

CC: Howard Pham
Region 5 TPO
Mail Code: **SA-5J**

Contract Laboratory Program

Sample Delivery Group (SDG)
Cover Sheet

SDG Number E0AA5

Laboratory Name	Mitkem Laboratories	Lab Code	MITKEM
Contract No.	EP-W-11-033	Case No.	43638
Analysis Price	$264	SDG Turnaround	14 days ~~w/ PES~~ ACN 8/2/13

EPA Sample Numbers in SDG (Listed in Numerical Order)

01) E0AA5	08) E0AB2MS	15) E0AB8	22) E0AC5
02) E0AA6	09) E0AB2MSD	16) E0AB9	
03) E0AA8	10) E0AB3	17) E0AC0	
04) E0AA9	11) E0AB4	18) E0AC1	
05) E0AB0	12) E0AB5	19) E0AC2	
06) E0AB1	13) E0AB6	20) E0AC3	
07) E0AB2	14) E0AB7	21) E0AC4	

First Sample in SDG	Last Sample in SDG
E0AA5	E0AC5
First Sample Receipt Date	**Last Sample Receipt Date**
07/24/2013	07/26/2013

Note: There are a maximum of 20 field samples [excluding Performance Evaluation (PE) samples in an SDG. Attach the TR/COC Records to this form in alphanumeric order (the order listed above on this form).

Signature [signature] Date 07/29/2013

Monday, July 29, 2013 1:03:30 PM

SDG E0AA5

USEPA CLP Organics COC (LAB COPY)

DateShipped: 7/23/2013

CarrierName:

AirbillNo:

CHAIN OF CUSTODY RECORD

Case #: 43638

Cooler #:

No: 5-072313-170354-0003

Lab: Spectrum Analytical, Inc. DBA: MITKEM Laboratories

Lab Contact: Agnes Huntley

Lab Phone: 401-732-3400

M1238

	Organic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Inorganic Sample #	For Lab Use Only
	E0AA0	Ground Water/ David Sena	Grab	CLP TVOA, CLP SVOA	5-017201 (HCl), 5-17202 (None) (5)	CC-RW02-072313	07/23/2013 10:15	ME0AA0	
	E0AA1	Ground Water/ David Sena	Grab	CLP TVOA, CLP SVOA	5-17205 (HCl), 5-17206 (None) (5)	CC-RW02-072313D	07/23/2013 10:20	ME0AA1	
	E0AA2	Ground Water/ David Sena	Grab	CLP TVOA, CLP SVOA	5-17209 (HCl), 5-17210 (None) (5)	CC-RW01-072313	07/23/2013 11:20	ME0AA2	
	E0AA3	Ground Water/ David Sena	Grab	CLP TVOA, CLP SVOA	5-17213 (HCl), 5-17215 (None) (13)	CC-RW03-072313	07/23/2013 12:00	ME0AA3	
01	E0AA5	Soil/ David Sena	Grab	CLP VOA, CLP SVOA	5-17217 (None), 5-17219 (None) (4)	CC-SO08-(12-24)-072313	07/23/2013 16:15	ME0AA5	good
02	E0AA6	Soil/ David Sena	Grab	CLP VOA, CLP SVOA, PER_SOL	5-17221 (None), 5-17222 (None), 5-17224 (None) (5)	CC-SO12-(0-12)-072313	07/23/2013 17:05	ME0AA6	good
	E0AA7	Ground Water/ David Sena	Grab	CLP TVOA	5-17225 (HCl) (2)	CC-TB01	07/23/2013 17:00		
01	E0AA5	Soil/ David Sena	Grab	PER_SOL	5-17220 (None) (1)	CC-SO08-(12-24)-072313	07/23/2013 16:15		good

COPY

Original Documents Are Included in CSF E0AA0

Signed: AGAA Date: 7/24/13

Sample(s) to be used for Lab QC: E0AA3

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

Analysis Key: CLP TVOA=CLP TCL Trace Volatiles, CLP SVOA=CLP TCL Semivolatiles, CLP VOA=CLP TCL Volatiles, PER_SOL=Percent Solids

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
	David Sena	7-23-13	[illegible]	7/24/13	10:30						

5.0°C

E0AA5

USEPA CLP Organics COC (LAB COPY)

CHAIN OF CUSTODY RECORD

No: 5-072413-082229-0005

DateShipped: 7/24/2013

TAT: 14 Days

Lab: Spectrum Analytical, Inc. DBA: MITKEM Laboratories

CarrierName: FedEx

Case #: 43638

Lab Contact: Agnes Huntley

AirbillNo:

Cooler #:

Lab Phone: 401-732-3400

M1238

	Organic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Inorganic Sample #	For Lab Use Only
-03	E0AA8	Soil/ David Sena	Grab	CLP VOA, CLP SVOA /14	5-17226 (None), 5-17229 (None) (4)	CC-SO01-(0-12)-072413	07/24/2013 08:20	ME0AA8	good
-04	E0AA9	Soil/ David Sena	Grab	CLP VOA, PER_SOL, CLP SVOA /14	5-17230 (None), 5-17231 (None), 5-17233 (None) (5)	CC-SO02-(0-12)-072413	07/24/2013 09:10	ME0AA9	
-05	E0AB0	Soil/ David Sena	Grab	CLP VOA, PER_SOL, CLP SVOA /14	5-17235 (None), 5-17236 (None), 5-17238 (None) (5)	CC-S013-(0-12)-072413	07/24/2013 10:00	ME0AB0	
-06	E0AB1	Soil/ David Sena	Grab	CLP VOA, CLP SVOA, PER_SOL /14	5-17239 (None), 5-17241 (None), 5-17242 (None) (5)	CC-SO13-(0-12)-072413D	07/24/2013 10:05	ME0AB1	
-07	E0AB2	Soil/ David Sena	Grab	CLP VOA, PER_SOL, CLP SVOA /14	5-17243 (None), 5-17244 (None), 5-17246 (None) (11)	CC-S014-(0-12)-072413	07/24/2013 10:45	ME0AB2	
-08	E0AB3	Sediment/ David Sena	Grab	CLP VOA, PER_SOL, CLP SVOA /14	5-17247 (None), 5-17248 (None), 5-17250 (None) (5)	CC-SD08-(0-6)-072413	07/24/2013 15:00	ME0AB3	
-09	E0AB4	Sediment/ David Sena	Grab	CLP VOA, PER_SOL, CLP SVOA /14	5-17251 (None), 5-17252 (None), 5-17254 (None) (5)	CC-SD08-(6-12)-072413	07/24/2013 15:05	ME0AB4	good

Sample(s) to be used for Lab QC: E0AB2	**Shipment for Case Complete?** N
	Samples Transferred From Chain of Custody #

Analysis Key: CLP VOA=CLP TCL Volatiles, CLP SVOA=CLP TCL Semivolatiles, PER_SOL=Percent Solids

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
	David Sena	7-24-13	[illegible]	7/25/13	9:00						

25°C

SDG E0AA5

USEPA CLP Organics COC (LAB COPY)

DateShipped: 7/24/2013

CarrierName: FedEx

AirbillNo:

CHAIN OF CUSTODY RECORD

TAT: 14 Days

Case #: 43638

Cooler #:

No: 5-072413-082229-0005

Lab: Spectrum Analytical, Inc. DBA: MITKEM Laboratories

Lab Contact: Agnes Huntley

Lab Phone: 401-732-3400

M1238

	Organic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Inorganic Sample #	For Lab Use Only
-10	E0AB5	Sediment/ David Sena	Grab	CLP VOA, PER_SOL, CLP SVOA / 14	5-17255 (None), 5-17256 (None), 5-17258 (None) (5)	CC-SD07-(0-6)-072413	07/24/2013 15:45	ME0AB5	good
-11	E0AB6	Sediment/ David Sena	Grab	CLP VOA, PER_SOL, CLP SVOA / 14	5-17259 (None), 5-17260 (None), 5-17262 (None) (5)	CC-SD07-(6-12)-072413	07/24/2013 15:50	ME0AB6	
-12	E0AB7	Sediment/ David Sena	Grab	CLP VOA, PER_SOL, CLP SVOA / 14	5-17263 (None), 5-17264 (None), 5-17266 (None) (5)	CC-SD09-(0-6)-072413	07/24/2013 16:20	ME0AB7	
-13	E0AB8	Sediment/ David Sena	Grab	CLP VOA, PER_SOL, CLP SVOA / 14	5-17267 (None), 5-17268 (None), 5-17270 (None) (5)	CC-SD09-(6-12)-072413	07/24/2013 16:25	ME0AB8	
-14	E0AB9	Sediment/ David Sena	Grab	CLP VOA, PER_SOL, CLP SVOA / 14	5-17271 (None), 5-17272 (None), 5-17274 (None) (5)	CC-SD06-(0-6)-072413	07/24/2013 17:00	ME0AB9	
-15	E0AC0	Sediment/ David Sena	Grab	CLP VOA, PER_SOL, CLP SVOA / 14	5-17275 (N), 5-17276 (N), 5-17278 (N) (5)	CC-SD06-(6-12)-072413	07/24/2013 17:05	ME0AC0	
-16	E0AC1	Sediment/ David Sena	Grab	CLP VOA, PER_SOL, CLP SVOA / 14	5-17279 (None), 5-17280 (None), 5-17282 (None) (5)	CC-SD05-(0-6)-072413	07/24/2013 17:35	ME0AC1	good

Special Instructions:

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

Analysis Key: CLP VOA=CLP TCL Volatiles, CLP SVOA=CLP TCL Semivolatiles, PER_SOL=Percent Solids

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
	David Sena	7-24-13	[illegible]	7/25/13	9:00						

2.5C

SDG E0AA5

USEPA CLP Organics COC (LAB COPY)

CHAIN OF CUSTODY RECORD

No: 5-072413-082229-0005

DateShipped: 7/24/2013

TAT: 14 Days

Lab: Spectrum Analytical, Inc. DBA: MITKEM Laboratories

CarrierName: FedEx

Case #: 43638

Lab Contact: Agnes Huntley

AirbillNo:

Cooler #:

Lab Phone: 401-732-3400

M1238

-17

-03 +8

VEB 7/25/13

Organic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Inorganic Sample #	For Lab Use Only
E0AC2	Sediment/ David Sena	Grab	CLP VOA, PER_SOL, CLP SVOA / 14	5-17283 (None), 5-17285 (None), 5-17286 (None) (5)	CC-SD05-(6-12)-072413	07/24/2013 17:40	ME0AC2	good
E0AA8	Soil/ David Sena	Grab	PER_SOL / 14	5-17227 (None) (1)	CC-SO01-(0-12)-072413	07/24/2013 08:20		good

Special Instructions:

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

Analysis Key: CLP VOA=CLP TCL Volatiles, CLP SVOA=CLP TCL Semivolatiles, PER_SOL=Percent Solids

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
	David Sena	7/24/13	[illegible]	7/25/13	9:00						

2.5°C

SDG E0AA5

USEPA CLP Organics COC (LAB COPY)

DateShipped:

CarrierName:

AirbillNo:

CHAIN OF CUSTODY RECORD

TAT: 14 Days

Case #: 43638

Cooler #:

No: 5-072513-092235-0007

Lab: Spectrum Analytical, Inc. DBA: MITKEM Laboratories

Lab Contact: Agnes Huntley

Lab Phone: 401-732-3400

M1238

	Organic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Inorganic Sample #	For Lab Use Only
-18	E0AC3	Sediment/ David Sena	Grab	CLP VOA, PER_SOL, CLP SVOA	5-123001 (None), 5-123002 (None), 5-123004 (None) (5)	CC-SD04-(0-6)-072513	07/25/2013 08:20	ME0AC3	good
-19	E0AC4	Sediment/ David Sena	Grab	CLP VOA, PER_SOL, CLP SVOA	5-123005 (None), 5-123006 (None), 5-123008 (None) (5)	CC-SD04-(0-6)-072513D	07/25/2013 08:25	ME0AC4	good
-20	E0AC5	Sediment/ David Sena	Grab	CLP VOA, PER_SOL, CLP SVOA	5-123009 (None), 5-123010 (None), 5-123012 (None) (5)	CC-SD04-(6-12)-072513	07/25/2013 08:30	ME0AC5	good
SDG-Final Sample	E0AC6	Sediment/ David Sena	Grab	CLP VOA, PER_SOL, CLP SVOA	5-123013 (None), 5-123014 (None), 5-123015 (None) (11)	CC-SD03-(0-6)-072513	07/25/2013 10:00	ME0AC6	
	E0AC7	Sediment/ David Sena	Grab	CLP VOA, CLP SVOA, PER_SOL	5-123017 (None), 5-123018 (None), 5-123019 (None) (5)	CC-SD03-(6-12)-072513	07/25/2013 10:05	ME0AC7	
	E0AC8	Soil/ David Sena	Grab	CLP VOA, CLP SVOA, PER_SOL	5-123021 (None), 5-123022 (None), 5-123023 (None) (5)	CC-SO15-(0-12)-072513	07/25/2013 11:05	ME0AC8	
	E0AC9	Sediment/ David Sena	Grab	CLP VOA, PER_SOL, CLP SVOA	5-123025 (None), 5-123026 (None), 5-123028 (None) (5)	CC-SD02-(0-6)-072513	07/25/2013 12:15	ME0AC9	

Sample(s) to be used for Lab QC: E0AC6

14 Day Turn around Time

Analysis Key: CLP VOA=CLP TCL Volatiles, PER_SOL=Percent Solids, CLP SVOA=CLP TCL Semivolatiles

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
	David Sena	7-25-13	[illegible]	7/26/13	8:50						

1.5°C

SDG Narrative

Spectrum Analytical, Inc., featuring Hanibal Technology Rhode Island Division submits the enclosed data package in response to USEPA Case # 43638 and SDG# E0AA5. Analyses were performed for twenty soil samples that were received on July 24, 2013.

The analyses were performed under USEPA Contract # EP-W-11-033.

Please note that the temperature of the sample-shipping cooler received on July 24 was measured at 5.0°C. The temperature of the cooler received on July 25 was measured at 2.5°C. The temperature of the cooler received on July 26 was measured at 5.1°C

The following samples are submitted in this data package:

Client ID	Lab ID	Analysis
E0AA5	M1238-01B	S
E0AA5	M1238-01C	V
E0AA6	M1238-02B	S
E0AA6	M1238-02C	V
E0AA8	M1238-03B	S
E0AA8	M1238-03C	V
E0AA9	M1238-04B	S
E0AA9	M1238-04C	V
E0AB0	M1238-05B	S
E0AB0	M1238-05C	V
E0AB1	M1238-06B	S
E0AB1	M1238-06C	V
E0AB2	M1238-07B	S
E0AB2MS	M1238-07BMS	S
E0AB2MSD	M1238-07BMSD	S
E0AB2	M1238-07C	V
E0AB2MS	M1238-07CMS	V
E0AB2MSD	M1238-07CMSD	V
E0AB3	M1238-08B	S
E0AB3	M1238-08C	V
E0AB4	M1238-09B	S
E0AB4	M1238-09C	V
E0AB5	M1238-10B	S
E0AB5	M1238-10C	V
E0AB6	M1238-11B	S
E0AB6	M1238-11C	V
E0AB7	M1238-12B	S
E0AB7	M1238-12C	V

E0AB8	M1238-13B	S
E0AB8	M1238-13C	V
E0AB9	M1238-14B	S
E0AB9	M1238-14C	V
E0AC0	M1238-15B	S
E0AC0	M1238-15C	V
E0AC1	M1238-16B	S
E0AC1	M1238-16C	V
E0AC2	M1238-17B	S
E0AC2	M1238-17C	V
E0AC3	M1238-18B	S
E0AC3	M1238-18C	V
E0AC4	M1238-19B	S
E0AC4	M1238-19C	V
E0AC5	M1238-20B	S
E0AC5	M1238-20C	V

V = Low/Medium Volatiles
S = Semi-Volatiles

The analyses were performed using USEPA CLP Multi-Media, Multi-Concentration (SOM1.2_) protocols. The analyses were performed with strict adherence to the SOW with the following exceptions and observations:

SAMPLE RECEIPT:

The soil samples for VOA were received in Encore samplers. The samples were logged in, labeled and then transferred to the VOA laboratory. Once in the VOA lab, the samples were extruded into tared, unpreserved VOA vials. The samples in the VOA vials were kept frozen until time of analysis.

The TR/COC lists the sample tag numbers as '5-1XXXX' or '5-1XXXXXX'; however, the actual sample tag numbers are listed as '5C-01XXXX' or '5C-1XXXXX'. Per Region 5, the laboratory should note the issue in the SDG Narrative and proceed with the analysis of samples.

Samples E0AA5 and E0AA8 are listed on the TR/COC for VOA and SVOA analyses; however, on the TR/COC there are entries for sample EOAA5 and EOAA8 for percent solid analysis with the letter "O" as opposed to the number zero. The percent solid jars also have the letter "O" instead of a number zero. The remainder of the information between the two samples matches on the TR/COC. Per Region 5, the laboratory will note the issue in the SDG Narrative. The samples have the same station location and collection date/time, therefore they are to be considered the same samples. The correct sample IDs are E0AA5 and E0AA8 with the number zero for all analyses (percent solid, SVOA, and VOA).

Low/Medium Volatiles Analysis:

I. HOLDING TIMES

A. Sample Preparation:

All samples were prepared within the method-specified holding times.

B. Sample Analysis:

All samples were analyzed within the method-specified holding times.

II. METHODS

Samples were analyzed following procedures in laboratory test code: EPA CLP SOM 1.2 VOC

The following equation was used to calculate the concentration of target analytes for low-level soil samples:

$$\text{Concentration } (\mu g/\text{Kg}) = \frac{(\text{Amt})(\text{DF})(\text{UF})(5)}{\left(\frac{Ws * (100 - M)}{100}\right)}$$

where: Amt = on-column amount on raw data
DF = Dilution factor
UF = ng unit correction factor
Ws = Weight of sample extracted (g)
M = %moisture (not decanted)

The following equation was used to calculate the Amt in the previous equations:

$$Amt = \frac{(A_x)(IS)}{(A_{is})(RRF)}$$

where: A_x = area of the characteristic ion for the compound to be measured
A_{is} = area of the characteristic ion for the associated internal standard
IS = concentration of internal standard in ug/L
RRF = relative response factor

III. PREPARATION

Soil Samples were prepared following procedures in laboratory test code: SW5035

IV. INSTRUMENTATION

The following instrumentation was used:

Instrument Code: V5
Instrument Type: GCMS-VOA
Description: HP6890 / HP6890
Manufacturer: Hewlett-Packard
Model: 6890 / 6890

Trap used for instrument V5: OI Anaytical #10 Trap containing 8 cm each of Tenax, silica gel and carbon molecular sieve

GC Column used: 30 m X 0.25 mm ID [1.40 um thickness] DB-624 capillary column.

V. ANALYSIS

A. Calibration:

Calibrations met the SOW acceptance criteria.

Secondary ion 65 was used in the quantitation of 1,1-dichloroethene-d2 instead of primary ion 63 due to the interference with target compound 1,1-dichloroethene in the calibration standards.

B. Blanks:

Method blanks met the SOW requirement.

C. DMC Recoveries:

DMC recoveries were within the QC limits with the exception of the following:

E0AB0: recovery is above criteria for Chloroethane-d5 at 131% with criteria of (61-130).

E0AC3: recovery is above criteria for 1,2-Dichloropropane-d6 at 131% with criteria of (74-124), Chloroethane-d5 at 134% with criteria of (61-130) and Vinyl chloride-d3 at 150% with criteria of (68-122).

E0AC5: recovery is above criteria for Chloroethane-d5 at 131% with criteria of (61-130) and Vinyl chloride-d3 at 124% with criteria of (68-122).

D. Matrix Spike / Matrix Spike Duplicate (MS/MSD):

Duplicate matrix spikes were performed on sample: E0AB2

Spike recoveries were within the advisory QC limits.

Replicate RPDs were within the advisory QC limits.

E. Internal Standards:

Internal standard peak areas were within the QC limits.

F. Dilutions:

No sample in this SDG required analysis at dilution.

G. Samples:

cis-1,3-Dichloropropene-d4 was detected in method blanks and in samples. The volatile organic deuterated monitoring compound spike solution contains both the cis- and trans-1,3-dichloropropene isomers. cis-1,3-Dichloropropene-d4 is not a dueterated monitoring compound for SOM01.2, while the trans isomer is. The cis isomer is considered a laboratory artifact, and is not reported as a tentatively identified compound.

No other unusual observations were made for the analysis.

H. Manual Integration

No manual integrations were performed on any sample or standard.

Semi-Volatiles Analysis:

I. HOLDING TIMES

A. Sample Preparation:

All samples were prepared within the method-specified holding times.

B. Sample Analysis:

All samples were analyzed within the method-specified holding times.

II. METHODS

Samples were analyzed following procedures in laboratory test code: EPA CLP SOM 1.2 BNA

The following equation was used to calculate the concentration of target analytes for soil samples:

$$\text{Concentration } (\mu g/\text{Kg}) = (\text{Amt})(\text{DF})(\text{Uf})\left(\frac{\text{V}_t}{\text{V}_i}\right)\left(\frac{1}{\text{Ws}}\right)\left(\frac{100}{(100-m)}\right)$$

where: Amt = on-column amount on raw data
DF = Dilution factor
UF = ng unit correction factor
Ws = Weight of sample extracted (g)
M = %moisture (not decanted)

The following equation was used to calculate the Amt in the previous equations:

$$Amt = \frac{(A_x)(IS)}{(A_{is})(RRF)}$$

where: A_x = area of the characteristic ion for the compound to be measured
A_{is} = area of the characteristic ion for the associated internal standard
IS = concentration of internal standard in ug/L
RRF = relative response factor

III. PREPARATION

Soil Samples were prepared following procedures in laboratory test code: SW3550B

IV. INSTRUMENTATION

The following instrumentation was used to perform

Instrument Code: S4
Instrument Type: GCMS-SEMI
Description: HP6890 / HP5973
Manufacturer: Hewlett-Packard
Model: 6890N / 5973N

GC Column used: 30 m X 0.25 mm ID [0.25 um thickness] Rxi-5sil MS capillary column.

V. ANALYSIS

A. Calibration:

Calibrations met the SOW acceptance criteria.

Ion 71 was used instead of ion 99 for Phenol-d5. Phenol-d5 closely elutes with bis (2-Chloroethyl) ether-d8, which also uses ion 99 for quantitation. This causes the recovery of Phenol-d5 to be higher. These two compounds have co-eluted in the high level calibration standard.

B. Blanks:

All method blanks were within the SOW criteria.

C. DMC Recoveries:

DMC recoveries were within the QC limits with the following exceptions.

E0AA6: recovery is below criteria for Pyrene-d10 at 50% with criteria of (51-120).

E0AA8: recovery is below criteria for Pyrene-d10 at 48% with criteria of (51-120).

E0AB1: recovery is below criteria for Pyrene-d10 at 50% with criteria of (51-120).

E0AB2MSD: recovery is below criteria for Pyrene-d10 at 50% with criteria of (51-120).

E0AB3: recovery is below criteria for Pyrene-d10 at 47% with criteria of (51-120).

E0AB5: recovery is below criteria for Pyrene-d10 at 51% with criteria of (51-120).

E0AB8: recovery is below criteria for Pyrene-d10 at 49% with criteria of (51-120).

E0AB9: recovery is below criteria for Pyrene-d10 at 48% with criteria of (51-120).

E0AC0: recovery is below criteria for Pyrene-d10 at 50% with criteria of (51-120).

E0AC4: recovery is below criteria for Pyrene-d10 at 51% with criteria of (51-120).

D. Matrix Spike / Matrix Spike Duplicate (MS/MSD):

Duplicate matrix spikes were performed on sample: E0AB2

Spike recoveries were within the advisory QC limits with the exception of the following:

E0AB2MS: recovery is below criteria for Pyrene at 33% with criteria of (35-142).

E0AB2MSD: recovery is below criteria for N-Nitroso-di-n-propylamine at 40% with criteria of (41-126) and Pyrene at 29% with criteria of (35-142).

Replicate RPDs were within the advisory QC limits.

E. Internal Standards:

Internal standard area counts were within QC criteria.

F. Dilutions:

No sample in this SDG required analysis at dilution.

G. Samples:

Alkanes were determined as part of tentatively identified compounds. The alkanes are reported on the Alkane Narrative Report following the SDG Narrative.

No other unusual observations were made for the analysis.

H. Manual Integration:

No manual integrations were performed on any sample or standard.

All of the submittals to the region are originals other than logbook pages. Photocopies of logbook pages are included, with the originals maintained on file at the laboratory. Tunes, calibration verifications and initial calibrations that are shared among several cases are photocopies indicating the location of the originals.

I certify that this Sample Data Package is in compliance with the terms and condition of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy Sample Data Package and in the electronic data deliverable has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Agnes Huntley
CLP Project Manager
08/07/13

ALKANE NARRATIVE REPORT
Report Date: 08/06/2013
SDG: E0AA5

Client Sample ID: E0AB7 Lab Sample ID: M1238-12B File ID: S4F4624.D

Compound	RT	Est. Conc.	Q
Straight-chain Alkane	13.26	150	J

Agnes Huntley [Warwick]

From: Baciocco, Kerrie [kbaciocco@fedcsc.com]
Sent: Monday, July 29, 2013 1:24 PM
To: Agnes Huntley [RI]; Dawne Smart [RI]
Cc: Balla, Tonya; Alida Roberman; Carlene Thomas; Howard Pham; Tim Prendiville; Layne.warren@epa.gov
Subject: Region 05 | Case 43638 | Lab MITKEM | Issue Discrepancies with tags, jars, and/or TR/COC | FINAL

Agnes,

Summary Start
Issue: Samples E0AA5 and E0AA8 are listed on the TR/COC for VOA and SVOA analyses; however, on the TR/COC there are entries for sample E0AA5 and E0AA8 for percent solid analysis with the letter "O" as opposed to the number zero. The percent solid jars also have the letter "O" instead of a number zero. The remainder of the information between the two samples matches on the TR/COC.
Resolution: Per Region 5, the laboratory will note the issue in the SDG Narrative. The samples have the same station location and collection date/time, therefore they are to be considered the same samples. The correct sample IDs are E0AA5 and E0AA8 with the number zero for all analyses (percent solid, SVOA, and VOA).
Summary End

Please let me know if you have any additional questions. To waive any defect(s) associated with this issue, please contact your PO.

Thanks,

KERRIE A. BACIOCCO
Environmental Coordinator - Region 5
CSC

15000 Conference Center Drive, Chantilly, VA 20151
Civil Division | (p) 703-818-4134 | (f) 703-818-4602 | kbaciocco@fedcsc.com | www.csc.com

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From: Layne, Warren [mailto:layne.warren@epa.gov]
Sent: Monday, July 29, 2013 1:10 PM
To: Baciocco, Kerrie; Roberman, Alida; Thomas, Carlene; Pham, Howard; Prendiville, Timothy
Subject: RE: Region 05 | Case 43638 | Lab MITKEM | Issue Discrepancies with tags, jars, and/or TR/COC

This response is OK with R5.. Thanks, Kerrie. The sampler should be notified of the discrepancy mb phone or e-mail as soon as possible so the error is not continued for future samples. Thanks.

From: Baciocco, Kerrie [mailto:kbaciocco@fedcsc.com]
Sent: Monday, July 29, 2013 12:08 PM
To: Layne, Warren; Roberman, Alida; Thomas, Carlene; Pham, Howard; Prendiville, Timothy
Subject: Region 05 | Case 43638 | Lab MITKEM | Issue Discrepancies with tags, jars, and/or TR/COC

Warren,

MITKEM is reporting the following issue regarding Case 43638. Please advise if the proposed resolution is

acceptable to the Region.

Issue: Samples E0AA5 and E0AA8 are listed on the TR/COC for VOA and SVOA analyses; however, on the TR/COC there are entries for sample EOAA5 and EOAA8 for percent solid analysis with the letter "O" as opposed to the number zero. The percent solid jars also have the letter "O" instead of a number zero. The remainder of the information between the two samples matches on the TR/COC.
PROPOSED Resolution: Per Region 5, the laboratory will note the issue in the SDG Narrative. The samples have the same station location and collection date/time, therefore they are to be considered the same samples. The correct sample IDs are E0AA5 and E0AA8 with the number zero for all analyses (percent solid, SVOA, and VOA).

Please let me know if you have any questions.
Thanks,

KERRIE A. BACIOCCO
Environmental Coordinator - Region 5
CSC

15000 Conference Center Drive, Chantilly, VA 20151
Civil Division | (p) 703-818-4134 | (f) 703-818-4602 | kbaciocco@fedcsc.com | www.csc.com

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From: Balla, Tonya [mailto:T.Balla@westonsolutions.com]
Sent: Monday, July 29, 2013 12:55 PM
To: Baciocco, Kerrie
Subject: RE: Region 05 | Case 43638 | Lab MITKEM | Issue Discrepancies with tags, jars, and/or TR/COC

They have the same Station ID, date, and time – they are all the same sample. The CLP ID should be a zero, not an O.

Thanks,

Tonya Balla
847 918-4094 office
847 528-2623 cell
t.balla@westonsolutions.com

From: Baciocco, Kerrie [mailto:kbaciocco@fedcsc.com]
Sent: Monday, July 29, 2013 12:01 PM
To: Balla, Tonya
Subject: Region 05 | Case 43638 | Lab MITKEM | Issue Discrepancies with tags, jars, and/or TR/COC

Tonya,

MITKEM is reporting the following issue regarding Case 43638. Please advise how the laboratory is to proceed.

Issue: Samples E0AA5 and E0AA8 are listed on the TR/COC for VOA and SVOA analyses; however, on the TR/COC there are entries for sample EOAA5 and EOAA8 for percent solid analysis with the letter "O" as opposed to the number zero. The percent solid jars also have the letter "O" instead of a number zero. The remainder of the information between the two samples matches on the TR/COC.

Are these samples with the letter "O" to be considered separate samples or are they intended to be a portion of the same sample as their counterparts with the number zero?

Please let me know if you have any questions.
Thanks,

KERRIE A. BACIOCCO
Environmental Coordinator - Region 5
CSC

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From: Agnes Huntley [RI] [mailto:anq@spectrum-analytical.com]
Sent: Monday, July 29, 2013 12:38 PM
To: Baciocco, Kerrie
Subject: RE: Case 43638 SDG E0AA5

Hi Kerrie,

This also applies to sample E0AA8. The percent solid jar has sample ID EOAA8.

Agnes (Ng) Huntley
CLP Project Manager
Spectrum Analytical, featuring Hanibal Technology
Rhode Island Division
646 Camp Avenue
North Kingstown, RI 02852
(P) 401-732-3400
(F) 401-732-3499

From: Agnes Huntley [Warwick]
Sent: Monday, July 29, 2013 12:34 PM
To: 'Baciocco, Kerrie'
Subject: RE: Case 43638 SDG E0AA5

The labels for the percent solid jar has the letter O...all other labels have the number 0.

Agnes (Ng) Huntley
CLP Project Manager
Spectrum Analytical, featuring Hanibal Technology
Rhode Island Division
646 Camp Avenue
North Kingstown, RI 02852
(P) 401-732-3400
(F) 401-732-3499

From: Baciocco, Kerrie [mailto:kbaciocco@fedcsc.com]
Sent: Monday, July 29, 2013 12:41 PM
To: Agnes Huntley [RI]

Subject: RE: Case 43638 SDG E0AA5

Agnes,

Do the labels on the sample containers have the letter O or the number zero for all analyses, or are the labels different as well?

Please let me know if you have any questions.
Thanks,

KERRIE A. BACIOCCO
Environmental Coordinator - Region 5
CSC

15000 Conference Center Drive, Chantilly, VA 20151
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From: Agnes Huntley [RI] [mailto:ang@spectrum-analytical.com]
Sent: Monday, July 29, 2013 12:27 PM
To: Baciocco, Kerrie
Subject: Case 43638 SDG E0AA5

Hi Kerrie,

I have attached the TR/COC.

Sample E0AA5 is listed on the TR/COC for VOA and SVOA. There is a entry on the TR/COC for sample EOAA5 for percent solid. Sample EOAA5 is the same as sample E0AA5, just a typo using the letter O instead of the number zero.

Please call with any questions or concerns,
Agnes

Agnes (Ng) Huntley
CLP Project Manager
Spectrum Analytical, featuring Hanibal Technology
Rhode Island Division
646 Camp Avenue
North Kingstown, RI 02852
(P) 401-732-3400
(F) 401-732-3499
****
Due to rising cost of rush shipments, Spectrum Analytical requests that you allow sufficient time for all sample bottle order requests, 3 days notice at a minimum. If you need an expedited bottle order request Spectrum Analytical will provide the bottles but will request that you pay for the shipping. Spectrum Analytical will continue to pay for all shipping previously agreed to, given proper notification. Thank you for your understanding and cooperation

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Agnes Huntley [Warwick]

From: Baciocco, Kerrie [kbaciocco@fedcsc.com]
Sent: Monday, August 05, 2013 11:58 AM
To: Agnes Huntley [RI]; Dawne Smart [RI]
Cc: Alida Roberman; Carlene Thomas; Howard Pham; Tim Prendiville; Layne.warren@epa.gov; Balla, Tonya
Subject: Region 05 | Case 43638 | Lab MITKEM | Issue Discrepancies with tags, jars, and/or TR/COC | FINAL
Attachments: M1237_SDG Coversheet.pdf; M1238_SDG Coversheet.pdf; M1270_SDG Coversheet.pdf

Agnes,

Summary Start
Issue 1: The TR/COC lists the sample tag numbers as '5-1XXXX' or '5-1XXXXXX'; however, the actual sample tag numbers are listed as '5C-01XXXX' or '5C-1XXXXX'.
Resolution 1: Per Region 5, the laboratory should note the issue in the SDG Narrative and proceed with the analysis of samples.

Issue 2: For sample E0AA1, the sample tag lists the station location instead of the CLP sample ID and there is no sample collection time listed. The TR/COC lists the sample collection time as 10:20 for sample E0AA1.
Resolution 2: Per Region 5, the sample collection time listed on the TR/COC for sample E0AA1 is the correct sample collection time and should be used. Since the sample tag does not list the CLP sample ID, it is acceptable for the laboratory to match the tag information to the information on the TR/COC to identify the sample correctly as sample E0AA1.
Summary End

Please let me know if you have any additional questions. To waive any defect(s) associated with this issue, please contact your PO.

Thanks,

KERRIE A. BACIOCCO
Environmental Coordinator - Region 5
CSC

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From: Prendiville, Timothy [mailto:prendiville.timothy@epa.gov]
Sent: Monday, August 05, 2013 11:44 AM
To: Baciocco, Kerrie; Layne, Warren; Roberman, Alida; Thomas, Carlene; Pham, Howard
Subject: RE: Region 05 | Case 43638 | Lab MITKEM | Issue Discrepancies with tags, jars, and/or TR/COC

Kerrie,

The proposed resolutions are acceptable to the Region. Thanks.

From: Baciocco, Kerrie [mailto:kbaciocco@fedcsc.com]

Sent: Monday, August 05, 2013 10:45 AM
To: Layne, Warren; Roberman, Alida; Thomas, Carlene; Pham, Howard; Prendiville, Timothy
Subject: RE: Region 05 | Case 43638 | Lab MITKEM | Issue Discrepancies with tags, jars, and/or TR/COC

Warren,

I would just like to follow up on the email below which is pending response. Please advise if the proposed resolutions are acceptable to the Region.

Issue 1: The TR/COC lists the sample tag numbers as '5-1XXXX' or '5-1XXXXXX'; however, the actual sample tag numbers are listed as '5C-01XXXX' or '5C-1XXXXX'.
PROPOSED Resolution 1: Per Region 5, the laboratory should note the issue in the SDG Narrative and proceed with the analysis of samples.

Issue 2: For sample E0AA1, the sample tag lists the station location instead of the CLP sample ID and there is no sample collection time listed. The TR/COC lists the sample collection time as 10:20 for sample E0AA1.
PROPOSED Resolution 2: Per Region 5, the sample collection time listed on the TR/COC for sample E0AA1 is the correct sample collection time and should be used. Since the sample tag does not list the CLP sample ID, it is acceptable for the laboratory to match the tag information to the information on the TR/COC to identify the sample correctly as sample E0AA1.

Please let me know if you have any questions.
Thanks,

KERRIE A. BACIOCCO
Environmental Coordinator - Region 5
CSC

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From: Baciocco, Kerrie
Sent: Friday, August 02, 2013 4:14 PM
To: 'Warren Layne (Layne.warren@epa.gov)'; 'Alida Roberman'; 'Carlene Thomas'; 'Howard Pham'; 'Tim Prendiville'
Subject: Region 05 | Case 43638 | Lab MITKEM | Issue Discrepancies with tags, jars, and/or TR/COC

Warren,

This is Caitlin Shubick; Kerrie is out of the office.

MITKEM is reporting the following issues regarding Case 43638. Please advise if the proposed resolutions are acceptable to the Region.

Issue 1: The TR/COC lists the sample tag numbers as '5-1XXXX' or '5-1XXXXXX'; however, the actual sample tag numbers are listed as '5C-01XXXX' or '5C-1XXXXX'.
PROPOSED Resolution 1: Per Region 5, the laboratory should note the issue in the SDG Narrative and proceed with the analysis of samples.

Issue 2: For sample E0AA1, the sample tag lists the station location instead of the CLP sample ID and there is no sample collection time listed. The TR/COC lists the sample collection time as 10:20 for sample E0AA1.
PROPOSED Resolution 2: Per Region 5, the sample collection time listed on the TR/COC for sample E0AA1 is the correct

sample collection time and should be used. Since the sample tag does not list the CLP sample ID, it is acceptable for the laboratory to match the tag information to the information on the TR/COC to identify the sample correctly as sample E0AA1.

Please let me know if you have any questions.
Thanks,
Caitlin for

KERRIE A. BACIOCCO
Environmental Coordinator - Region 5
CSC

15000 Conference Center Drive, Chantilly, VA 20151
Civil Division | (p) 703-818-4134 | (f) 703-818-4602 | kbaciocco@fedcsc.com | www.csc.com

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From: Balla, Tonya [mailto:T.Balla@westonsolutions.com]
Sent: Friday, August 02, 2013 3:58 PM
To: Baciocco, Kerrie
Subject: RE: Region 05 | Case 43638 | Lab MITKEM | Issue Discrepancies with tags, jars, and/or TR/COC

The laboratory can note the tag number discrepancy in the laboratory narrative and proceed with analysis.

The time on the COC for sample E0AA1 is valid and should be used as the sample time for that sample. Matching the CLP number on the tag and COC is acceptable.

Thanks,

Tonya Balla
847 918-4094 office
847 528-2623 cell
t.balla@westonsolutions.com

From: Baciocco, Kerrie [mailto:kbaciocco@fedcsc.com]
Sent: Friday, August 02, 2013 12:35 PM
To: Balla, Tonya
Subject: Region 05 | Case 43638 | Lab MITKEM | Issue Discrepancies with tags, jars, and/or TR/COC

Hi Tonya,

This is Caitlin Shubick; Kerrie is out of the office.

MITKEM is reporting the following issues for Case 43638. Please advise how the laboratory should proceed.

Issue 1: The TR/COC lists the sample tag numbers as '5-1XXXX' or '5-1XXXXXX'; however, the actual sample tag numbers are listed as '5C-01XXXX' or '5C-1XXXXX'.

Issue 2: For sample E0AA1, the sample tag lists the station location instead of the CLP sample ID and there is no sample collection time listed. The TR/COC lists the sample collection time as 10:20 for sample E0AA1.

Please let me know if you have any questions.
Thanks,

KERRIE A. BACIOCCO
Environmental Coordinator - Region 5
CSC

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From: Agnes Huntley [RI] [mailto:ang@spectrum-analytical.com]
Sent: Friday, August 02, 2013 1:08 PM
To: Baciocco, Kerrie
Subject: RE: Case 43638

The tag numbers are 5C- and six numbers after the dash. The TR/COC lists the tag numbers as 5-1XXXX or 5-1XXXXXX. The ones listed as 5-1XXXX should be 5C-01XXXX and the ones listed as 5-1XXXXX should be 5C-1XXXXX.

Agnes (Ng) Huntley
CLP Project Manager
Spectrum Analytical, featuring Hanibal Technology
Rhode Island Division
646 Camp Avenue
North Kingstown, RI 02852
(P) 401-732-3400
(F) 401-732-3499

From: Baciocco, Kerrie [mailto:kbaciocco@fedcsc.com]
Sent: Friday, August 02, 2013 1:13 PM
To: Agnes Huntley [RI]
Subject: RE: Case 43638

Thanks, Agnes.

Just one last thing I'd like to clarify for the tag number issue, in looking at the TR/COC, it looks like the tag number is listed as either '5-1XXXX', '5-0XXXX' for all samples; however, you indicated there is a letter 'C' between the '5' and the '-' on the actual sample tag (i.e. '5C-0XXXX' or '5C-1XXXX'). So the discrepancy appears to be the extra letter 'C' in the tag number on the sample tag, correct?

Please let me know if you have any questions.
Thanks,
Caitlin for

KERRIE A. BACIOCCO
Environmental Coordinator - Region 5
CSC

15000 Conference Center Drive, Chantilly, VA 20151
Civil Division | (p) 703-818-4134 | (f) 703-818-4602 | kbaciocco@fedcsc.com | www.csc.com

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From: Agnes Huntley [RI] [mailto:ang@spectrum-analytical.com]
Sent: Friday, August 02, 2013 12:42 PM
To: Baciocco, Kerrie
Subject: RE: Case 43638

The TR/COCs are attached.

The tags are reviewed by our work orders. I did not realize when I sent the first email that if was all for the same case number.

Agnes (Ng) Huntley
CLP Project Manager
Spectrum Analytical, featuring Hanibal Technology
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646 Camp Avenue
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(P) 401-732-3400
(F) 401-732-3499

From: Baciocco, Kerrie [mailto:kbaciocco@fedcsc.com]
Sent: Friday, August 02, 2013 12:34 PM
To: Agnes Huntley [RI]
Subject: RE: Case 43638

Hi Agnes,

This is Caitlin Shubick; Kerrie is out of the office.

Can you please provide a copy of the TR/COC for Case 43638?

Also, to clarify the sample tag issue, was your second email about the sample tags a further clarification of the first email you sent? So to clarify, the issue is as stated below:

Issue: The TR/COC lists the sample tag numbers as 'XXXXX' or '1XXXXX'; however, the actual sample tag numbers are listed as '5C-0XXXXX' or '5C-1XXXXX'

Please let me know if you have any questions.
Thanks,
Caitlin for

KERRIE A. BACIOCCO
Environmental Coordinator - Region 5
CSC

15000 Conference Center Drive, Chantilly, VA 20151
Civil Division | (p) 703-818-4134 | (f) 703-818-4602 | kbaciocco@fedcsc.com | www.csc.com

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From: Agnes Huntley [RI] [mailto:ang@spectrum-analytical.com]
Sent: Friday, August 02, 2013 11:59 AM

To: Baciocco, Kerrie
Subject: Case 43638

Hi Kerrie,

The TR/COC lists the tag numbers as XXXXX or 1XXXXX. The actual tag numbers are 5C-0XXXXX or 5C-1XXXXX.

Thank you,
Agnes

Agnes (Ng) Huntley
CLP Project Manager
Spectrum Analytical, featuring Hanibal Technology
Rhode Island Division
646 Camp Avenue
North Kingstown, RI 02852
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****
Due to rising cost of rush shipments, Spectrum Analytical requests that you allow sufficient time for all sample bottle order requests, 3 days notice at a minimum. If you need an expedited bottle order request Spectrum Analytical will provide the bottles but will request that you pay for the shipping. Spectrum Analytical will continue to pay for all shipping previously agreed to, given proper notification. Thank you for your understanding and cooperation

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From: Agnes Huntley [RI] [mailto:ang@spectrum-analytical.com]
Sent: Friday, August 02, 2013 11:42 AM
To: Baciocco, Kerrie
Subject: Case 43638 SDG E0AA0

Hi Kerrie,

The actual tag numbers are 5C-0xxxxx, however, the tag numbers are listed as 5C-xxxxx.

For sample E0AA1, the sample tag lists the station location instead of the CLP sample ID. It also does not list the time of sample collection. The TR/COC notes collection time as 10:20.

Thank you,
Agnes

Agnes (Ng) Huntley
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Spectrum Analytical, featuring Hanibal Technology
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North Kingstown, RI 02852
(P) 401-732-3400
(F) 401-732-3499
****
Due to rising cost of rush shipments, Spectrum Analytical requests that you allow sufficient time for all sample

bottle order requests, 3 days notice at a minimum. If you need an expedited bottle order request Spectrum Analytical will provide the bottles but will request that you pay for the shipping. Spectrum Analytical will continue to pay for all shipping previously agreed to, given proper notification. Thank you for your understanding and cooperation

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2C - FORM II VOA-3

SOIL VOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Level: (LOW/MED) LOW

	EPA SAMPLE NO.	VDMC1 (VCL)	#	VDMC2 (CLA)	#	VDMC3 (DCE)	#	VDMC4 (BUT)	#	VDMC5 (CLF)	#	VDMC6 (DCA)	#	VDMC7 (BEN)	#
01	VBLKT5	95		101		82		81		83		89		101	
02	E0AC2	113		123		99		94		103		105		111	
03	E0AC3	150	*	134	*	108		78		101		110		121	
04	E0AC4	117		127		102		103		102		109		109	
05	E0AC5	124	*	131	*	106		83		104		113		118	
06	E0AB2MS	119		128		103		96		100		113		108	
07	E0AB2MSD	116		122		102		103		106		110		110	
08	VBLKX5	117		123		102		97		99		105		104	
09	E0AA5	116		122		103		97		100		105		100	
10	E0AA6	119		122		105		99		99		104		103	
11	E0AA8	114		123		102		96		97		104		104	
12	E0AA9	116		124		101		96		101		106		103	
13	E0AB0	120		131	*	106		100		99		102		101	
14	E0AB1	117		127		121		101		100		109		100	
15	E0AB2	112		121		100		96		96		101		98	
16	E0AB3	117		121		103		88		97		101		99	
17	E0AB4	112		123		96		102		101		106		96	
18	E0AB5	113		122		99		105		101		106		98	
19	E0AB6	114		121		98		107		98		107		98	
20	E0AB7	114		123		101		90		101		102		99	
21	E0AB8	115		127		101		102		101		108		95	
22	E0AB9	110		124		97		92		97		102		94	
23	E0AC0	114		123		96		92		102		109		98	
24	E0AC1	108		121		94		98		99		106		98	
25	VHBLKX5	109		117		95		97		99		103		99	

			QC LIMITS
VDMC1	(VCL)	= Vinyl chloride-d3	(68-122)
VDMC2	(CLA)	= Chloroethane-d5	(61-130)
VDMC3	(DCE)	= 1,1-Dichloroethene-d2	(45-132)
VDMC4	(BUT)	= 2-Butanone-d5	(20-182)
VDMC5	(CLF)	= Chloroform-d	(72-123)
VDMC6	(DCA)	= 1,2-Dichloroethane-d4	(79-122)
VDMC7	(BEN)	= Benzene-d6	(80-121)

Column to be used to flag recovery values

* Values outside of contract required QC limits

2D - FORM II VOA-4

SOIL VOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Level: (LOW/MED) LOW

	EPA SAMPLE NO.	VDMC8 (DPA) #	VDMC9 (TOL) #	VDMC10 (TDP) #	VDMC11 (HEX) #	VDMC12 (DXE) #	VDMC13 (TCA) #	VDMC14 (DCZ) #	TOT OUT
01	VBLKT5	108	114	98	90	71	94	108	0
02	E0AC2	112	111	95	83	67	90	106	0
03	E0AC3	131 *	120	107	99	78	107	113	3
04	E0AC4	107	109	97	97	69	96	109	0
05	E0AC5	119	112	96	85	85	98	109	2
06	E0AB2MS	107	110	96	92	72	95	111	0
07	E0AB2MSD	111	106	93	92	77	93	111	0
08	VBLKX5	102	108	95	86	77	86	104	0
09	E0AA5	97	104	94	85	79	86	103	0
10	E0AA6	102	108	96	88	77	88	104	0
11	E0AA8	103	104	96	88	82	87	105	0
12	E0AA9	102	107	96	90	81	88	108	0
13	E0AB0	99	108	97	87	77	90	104	1
14	E0AB1	98	105	95	91	90	93	106	0
15	E0AB2	98	104	93	84	78	85	106	0
16	E0AB3	95	104	88	80	63	83	105	0
17	E0AB4	98	100	95	90	81	88	108	0
18	E0AB5	96	102	97	91	76	90	104	0
19	E0AB6	96	103	94	96	90	92	104	0
20	E0AB7	99	106	91	80	63	85	105	0
21	E0AB8	95	99	88	85	74	85	101	0
22	E0AB9	96	101	92	87	77	88	103	0
23	E0AC0	94	101	91	84	77	85	101	0
24	E0AC1	98	102	90	84	79	86	101	0
25	VHBLKX5	98	102	91	85	72	90	105	0

			QC LIMITS
VDMC8	(DPA)	= 1,2-Dichloropropane-d6	(74-124)
VDMC9	(TOL)	= Toluene-d8	(78-121)
VDMC10	(TDP)	= trans-1,3-Dichloropropene-d4	(72-130)
VDMC11	(HEX)	= 2-Hexanone-d5	(17-184)
VDMC12	(DXE)	= 1,4-Dioxane-d8	(50-150)
VDMC13	(TCA)	= 1,1,2,2-Tetrachloroethane-d2	(56-161)
VDMC14	(DCZ)	= 1,2-Dichlorobenzene-d4	(70-131)

Column to be used to flag recovery values

* Values outside of contract required QC limits

Report 1,4-Dioxane-d8 for Low-Medium VOA analysis only

3B - FORM III VOA-2

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix Spike - EPA Sample No.: E0AB2 Level: (LOW/MED) LOW

COMPOUND	SPIKE ADDED (µg/Kg)	SAMPLE CONCENTRATION (µg/Kg)	MS CONCENTRATION (µg/Kg)	MS %REC	#	QC. LIMITS REC.
1,1-Dichloroethene	75.0027	0.0000	60.5187	81		59-172
Benzene	75.0027	0.0000	70.9736	95		66-142
Trichloroethene	75.0027	0.0000	66.6560	89		62-137
Toluene	75.0027	0.0000	69.0770	92		59-139
Chlorobenzene	75.0027	0.0000	70.5015	94		60-133

COMPOUND	SPIKE ADDED (µg/Kg)	MSD CONCENTRATION (µg/Kg)	MSD %REC	#	%RPD	#	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	68.9214	53.7998	78		3		0-22	59-172
Benzene	68.9214	64.0888	93		2		0-21	66-142
Trichloroethene	68.9214	61.0949	89		0		0-24	62-137
Toluene	68.9214	63.9396	93		1		0-21	59-139
Chlorobenzene	68.9214	64.6456	94		0		0-21	60-133

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits

COMMENTS:

4A - FORM IV VOA
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.
VBLKT5

Lab Name: MITKEM LABORATORIES
Contract: EP-W-11-033
Lab Code: MITKEM Case No.: 43638
Mod. Ref No.: SDG No.: E0AA5
Lab File ID: V505102.D
Lab Sample ID: MB-72900
Instrument ID: V5
Matrix: (SOIL/SED/WATER) SOIL
Date Analyzed: 07/29/2013
Level: (TRACE or LOW/MED) LOW
Time Analyzed: 8:44
GC Column: DB-624 ID: 0.25 (mm)
Heated Purge: (Y/N) Y

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	E0AC2	M1238-17C	V505107.D	11:20
02	E0AC3	M1238-18C	V505108.D	12:15
03	E0AC4	M1238-19C	V505109.D	12:40
04	E0AC5	M1238-20C	V505110.D	13:06
05	E0AB2MS	M1238-07CMS	V505115.D	15:13
06	E0AB2MSD	M1238-07CMSD	V505116.D	15:38

COMMENTS:

SOM01.2 (6/2007)

4A - FORM IV VOA
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.
VBLKX5

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Lab File ID: V505162.D Lab Sample ID: MB-72990

Instrument ID: V5

Matrix: (SOIL/SED/WATER) SOIL Date Analyzed: 07/31/2013

Level: (TRACE or LOW/MED) LOW Time Analyzed: 17:54

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	E0AA5	M1238-01C	V505163.D	18:19
02	E0AA6	M1238-02C	V505164.D	18:44
03	E0AA8	M1238-03C	V505165.D	19:09
04	E0AA9	M1238-04C	V505166.D	19:34
05	E0AB0	M1238-05C	V505167.D	20:00
06	E0AB1	M1238-06C	V505168.D	20:25
07	E0AB2	M1238-07C	V505169.D	20:50
08	E0AB3	M1238-08C	V505170.D	21:15
09	E0AB4	M1238-09C	V505171.D	21:40
10	E0AB5	M1238-10C	V505172.D	22:05
11	E0AB6	M1238-11C	V505173.D	22:30
12	E0AB7	M1238-12C	V505174.D	22:55
13	E0AB8	M1238-13C	V505175.D	23:21
14	E0AB9	M1238-14C	V505176.D	23:46
15	E0AC0	M1238-15C	V505177.D	0:11
16	E0AC1	M1238-16C	V505178.D	0:36
17	VHBLKX5	VHBLKX5	V505179.D	1:01

COMMENTS:

8A - FORM VIII VOA

VOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

GC Column: DB-624 ID: 0.25 (mm) Init. Calib. Date(s): 07/28/2013 07/28/2013

EPA Sample No.(VSTD#####): VSTD050T5 Date Analyzed: 07/29/2013

Lab File ID (Standard): V505101.D Time Analyzed: 8:18

Instrument ID: V5 Heated Purge: (Y/N) Y

		IS1 (CBZ) AREA #	RT #	IS2 (DFB) AREA #	RT #	IS3 (DCB) AREA #	RT #
	12 HOUR STD	284421	9.084	278649	5.706	139103	12.242
	UPPER LIMIT	568842	9.584	557298	6.206	278206	12.742
	LOWER LIMIT	142211	8.584	139325	5.206	69552	11.742
	EPA SAMPLE NO.						
01	VBLKT5	291295	9.085	333949	5.707	138511	12.243
02	E0AC2	254275	9.078	291958	5.711	124132	12.247
03	E0AC3	195063	9.080	255312	5.702	74772	12.238
04	E0AC4	222357	9.084	250103	5.705	104878	12.241
05	E0AC5	220752	9.079	269012	5.712	90912	12.249
06	E0AB2MS	217000	9.083	239294	5.716	100879	12.241
07	E0AB2MSD	219224	9.085	243418	5.707	103107	12.243

IS1 (CBZ) = Chlorobenzene-d5

IS2 (DFB) = 1,4-Difluorobenzene

IS3 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = 200% (Low-Medium Volatiles) and 140% (Trace Volatiles) of internal standard area

AREA LOWER LIMIT = 50% (Low-Medium Volatiles) and 60% (Trace Volatiles) of internal standard area

RT UPPER LIMIT = +0.50 (Low-Medium Volatiles) and +0.33 (Trace Volatiles) minutes of internal standard RT

RT LOWER LIMIT = -0.50 (Low-Medium Volatiles) and -0.33 (Trace Volatiles) minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.

8A - FORM VIII VOA

VOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

GC Column: DB-624 ID: 0.25 (mm) Init. Calib. Date(s): 07/28/2013 07/28/2013

EPA Sample No.(VSTD#####): VSTD050X5 Date Analyzed: 07/31/2013

Lab File ID (Standard): V505161.D Time Analyzed: 17:29

Instrument ID: V5 Heated Purge: (Y/N) Y

		IS1 (CBZ) AREA #	RT #	IS2 (DFB) AREA #	RT #	IS3 (DCB) AREA #	RT #
	12 HOUR STD	194733	9.083	211681	5.704	99758	12.241
	UPPER LIMIT	389466	9.583	423362	6.204	199516	12.741
	LOWER LIMIT	97367	8.583	105841	5.204	49879	11.741
	EPA SAMPLE NO.						
01	VBLKX5	207918	9.080	228225	5.701	99188	12.249
02	E0AA5	201891	9.082	222019	5.715	95241	12.240
03	E0AA6	179534	9.083	200038	5.716	85111	12.241
04	E0AA8	188410	9.084	209790	5.706	92033	12.242
05	E0AA9	203992	9.078	227631	5.711	97651	12.248
06	E0AB0	177046	9.079	192706	5.712	83551	12.248
07	E0AB1	183126	9.084	193016	5.706	86236	12.242
08	E0AB2	195206	9.085	214261	5.707	90647	12.243
09	E0AB3	227590	9.079	245709	5.712	101990	12.248
10	E0AB4	168028	9.078	177494	5.711	79415	12.247
11	E0AB5	182049	9.079	194488	5.712	87215	12.248
12	E0AB6	173569	9.078	186639	5.711	83583	12.247
13	E0AB7	224884	9.084	243272	5.705	104897	12.242
14	E0AB8	173804	9.082	177530	5.715	79406	12.240
15	E0AB9	167627	9.078	181275	5.712	79824	12.248

IS1 (CBZ) = Chlorobenzene-d5

IS2 (DFB) = 1,4-Difluorobenzene

IS3 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = 200% (Low-Medium Volatiles) and 140% (Trace Volatiles) of internal standard area

AREA LOWER LIMIT = 50% (Low-Medium Volatiles) and 60% (Trace Volatiles) of internal standard area

RT UPPER LIMIT = +0.50 (Low-Medium Volatiles) and +0.33 (Trace Volatiles) minutes of internal standard RT

RT LOWER LIMIT = -0.50 (Low-Medium Volatiles) and -0.33 (Trace Volatiles) minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.

8A - FORM VIII VOA

VOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

GC Column: DB-624 ID: 0.25 (mm) Init. Calib. Date(s): 07/28/2013 07/28/2013

EPA Sample No.(VSTD#####): VSTD050X5 Date Analyzed: 07/31/2013

Lab File ID (Standard): V505161.D Time Analyzed: 17:29

Instrument ID: V5 Heated Purge: (Y/N) Y

		IS1 (CBZ) AREA #	RT #	IS2 (DFB) AREA #	RT #	IS3 (DCB) AREA #	RT #
	12 HOUR STD	194733	9.083	211681	5.704	99758	12.241
	UPPER LIMIT	389466	9.583	423362	6.204	199516	12.741
	LOWER LIMIT	97367	8.583	105841	5.204	49879	11.741
	EPA SAMPLE NO.						
16	E0AC0	173227	9.078	182693	5.712	83052	12.248
17	E0AC1	175189	9.078	189071	5.711	83619	12.247
18	VHBLKX5	165751	9.082	182306	5.703	76675	12.240

IS1 (CBZ) = Chlorobenzene-d5
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (DCB) = 1,4-Dichlorobenzene-d4
AREA UPPER LIMIT = 200% (Low-Medium Volatiles) and 140% (Trace Volatiles) of internal standard area
AREA LOWER LIMIT = 50% (Low-Medium Volatiles) and 60% (Trace Volatiles) of internal standard area
RT UPPER LIMIT = +0.50 (Low-Medium Volatiles) and +0.33 (Trace Volatiles) minutes of internal standard RT
RT LOWER LIMIT = -0.50 (Low-Medium Volatiles) and -0.33 (Trace Volatiles) minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AA5

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-01C

Sample wt/vol: 4.30 (g/mL) G Lab File ID: V505163.D

Level: (TRACE/LOW/MED) LOW Date Received: 07/24/2013

% Moisture: not dec. 15 Date Analyzed: 07/31/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	6.8	U
74-87-3	Chloromethane	6.8	U
75-01-4	Vinyl chloride	6.8	U
74-83-9	Bromomethane	6.8	U
75-00-3	Chloroethane	6.8	U
75-69-4	Trichlorofluoromethane	6.8	U
75-35-4	1,1-Dichloroethene	6.8	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	6.8	U
67-64-1	Acetone	14	U
75-15-0	Carbon disulfide	6.8	U
79-20-9	Methyl acetate	6.8	U
75-09-2	Methylene chloride	6.8	U
156-60-5	trans-1,2-Dichloroethene	6.8	U
1634-04-4	Methyl tert-butyl ether	6.8	U
75-34-3	1,1-Dichloroethane	6.8	U
156-59-2	cis-1,2-Dichloroethene	6.8	U
78-93-3	2-Butanone	14	U
74-97-5	Bromochloromethane	6.8	U
67-66-3	Chloroform	6.8	U
71-55-6	1,1,1-Trichloroethane	6.8	U
110-82-7	Cyclohexane	6.8	U
56-23-5	Carbon tetrachloride	6.8	U
71-43-2	Benzene	6.8	U
107-06-2	1,2-Dichloroethane	6.8	U
123-91-1	1,4-Dioxane	140	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AA5

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM

Case No.: 43638

Mod. Ref No.:

SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1238-01C

Sample wt/vol: 4.30 (g/mL) G

Lab File ID: V505163.D

Level: (TRACE/LOW/MED) LOW

Date Received: 07/24/2013

% Moisture: not dec. 15

Date Analyzed: 07/31/2013

GC Column: DB-624

ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	6.8	U
108-87-2	Methylcyclohexane	6.8	U
78-87-5	1,2-Dichloropropane	6.8	U
75-27-4	Bromodichloromethane	6.8	U
10061-01-5	cis-1,3-Dichloropropene	6.8	U
108-10-1	4-Methyl-2-pentanone	14	U
108-88-3	Toluene	6.8	U
10061-02-6	trans-1,3-Dichloropropene	6.8	U
79-00-5	1,1,2-Trichloroethane	6.8	U
127-18-4	Tetrachloroethene	6.8	U
591-78-6	2-Hexanone	14	U
124-48-1	Dibromochloromethane	6.8	U
106-93-4	1,2-Dibromoethane	6.8	U
108-90-7	Chlorobenzene	6.8	U
100-41-4	Ethylbenzene	6.8	U
179601-23-1	m,p-Xylene	6.8	U
95-47-6	o-Xylene	6.8	U
100-42-5	Styrene	6.8	U
75-25-2	Bromoform	6.8	U
98-82-8	Isopropylbenzene	6.8	U
79-34-5	1,1,2,2-Tetrachloroethane	6.8	U
541-73-1	1,3-Dichlorobenzene	6.8	U
106-46-7	1,4-Dichlorobenzene	6.8	U
95-50-1	1,2-Dichlorobenzene	6.8	U
96-12-8	1,2-Dibromo-3-chloropropane	6.8	U
120-82-1	1,2,4-Trichlorobenzene	6.8	U
87-61-6	1,2,3-Trichlorobenzene	6.8	U

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
E0AA5

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-01C

Sample wt/vol: 4.30 (g/mL) G Lab File ID: V505163.D

Level: (TRACE or LOW/MED) LOW Date Received: 07/24/2013

% Moisture: not dec. 15 Date Analyzed: 07/31/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

SOM01.2 (6/2007)

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AA6

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638

Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1238-02C

Sample wt/vol: 4.20 (g/mL) G

Lab File ID: V505164.D

Level: (TRACE/LOW/MED) LOW

Date Received: 07/24/2013

% Moisture: not dec. 6.7

Date Analyzed: 07/31/2013

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	6.4	U
74-87-3	Chloromethane	6.4	U
75-01-4	Vinyl chloride	6.4	U
74-83-9	Bromomethane	6.4	U
75-00-3	Chloroethane	6.4	U
75-69-4	Trichlorofluoromethane	6.4	U
75-35-4	1,1-Dichloroethene	6.4	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	13	U
67-64-1	Acetone	6.4	U
75-15-0	Carbon disulfide	6.4	U
79-20-9	Methyl acetate	6.4	U
75-09-2	Methylene chloride	6.4	U
156-60-5	trans-1,2-Dichloroethene	6.4	U
1634-04-4	Methyl tert-butyl ether	6.4	U
75-34-3	1,1-Dichloroethane	6.4	U
156-59-2	cis-1,2-Dichloroethene	13	U
78-93-3	2-Butanone	6.4	U
74-97-5	Bromochloromethane	6.4	U
67-66-3	Chloroform	6.4	U
71-55-6	1,1,1-Trichloroethane	6.4	U
110-82-7	Cyclohexane	6.4	U
56-23-5	Carbon tetrachloride	6.4	U
71-43-2	Benzene	6.4	U
107-06-2	1,2-Dichloroethane	130	U
123-91-1	1,4-Dioxane		

Report 1,4-Dioxane for Low-Medium VOA analysis only

SOM01.2 (6/2007)

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AA6

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-02C

Sample wt/vol: 4.20 (g/mL) G Lab File ID: V505164.D

Level: (TRACE/LOW/MED) LOW Date Received: 07/24/2013

% Moisture: not dec. 6.7 Date Analyzed: 07/31/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	6.4	U
108-87-2	Methylcyclohexane	6.4	U
78-87-5	1,2-Dichloropropane	6.4	U
75-27-4	Bromodichloromethane	6.4	U
10061-01-5	cis-1,3-Dichloropropene	6.4	U
108-10-1	4-Methyl-2-pentanone	13	U
108-88-3	Toluene	6.4	U
10061-02-6	trans-1,3-Dichloropropene	6.4	U
79-00-5	1,1,2-Trichloroethane	6.4	U
127-18-4	Tetrachloroethene	6.4	U
591-78-6	2-Hexanone	13	U
124-48-1	Dibromochloromethane	6.4	U
106-93-4	1,2-Dibromoethane	6.4	U
108-90-7	Chlorobenzene	6.4	U
100-41-4	Ethylbenzene	6.4	U
179601-23-1	m,p-Xylene	6.4	U
95-47-6	o-Xylene	6.4	U
100-42-5	Styrene	6.4	U
75-25-2	Bromoform	6.4	U
98-82-8	Isopropylbenzene	6.4	U
79-34-5	1,1,2,2-Tetrachloroethane	6.4	U
541-73-1	1,3-Dichlorobenzene	6.4	U
106-46-7	1,4-Dichlorobenzene	6.4	U
95-50-1	1,2-Dichlorobenzene	6.4	U
96-12-8	1,2-Dibromo-3-chloropropane	6.4	U
120-82-1	1,2,4-Trichlorobenzene	6.4	U
87-61-6	1,2,3-Trichlorobenzene	6.4	U

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
E0AA6

Lab Name: MITKEM LABORATORIES
Contract: EP-W-11-033
Lab Code: MITKEM Case No.: 43638
Mod. Ref No.: SDG No.: E0AA5
Matrix: (SOIL/SED/WATER) SOIL
Lab Sample ID: M1238-02C
Sample wt/vol: 4.20 (g/mL) G
Lab File ID: V505164.D
Level: (TRACE or LOW/MED) LOW
Date Received: 07/24/2013
% Moisture: not dec. 6.7
Date Analyzed: 07/31/2013
GC Column: DB-624 ID: 0.25 (mm)
Dilution Factor: 1.0
Soil Extract Volume: (uL)
Soil Aliquot Volume: (uL)
CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG
Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

SOM01.2 (6/2007)

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AA8

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638

Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1238-03C

Sample wt/vol: 4.60 (g/mL) G

Lab File ID: V505165.D

Level: (TRACE/LOW/MED) LOW

Date Received: 07/25/2013

% Moisture: not dec. 6.1

Date Analyzed: 07/31/2013

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	5.8	U
74-87-3	Chloromethane	5.8	U
75-01-4	Vinyl chloride	5.8	U
74-83-9	Bromomethane	5.8	U
75-00-3	Chloroethane	5.8	U
75-69-4	Trichlorofluoromethane	5.8	U
75-35-4	1,1-Dichloroethene	5.8	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.8	U
67-64-1	Acetone	12	U
75-15-0	Carbon disulfide	5.8	U
79-20-9	Methyl acetate	5.8	U
75-09-2	Methylene chloride	5.8	U
156-60-5	trans-1,2-Dichloroethene	5.8	U
1634-04-4	Methyl tert-butyl ether	5.8	U
75-34-3	1,1-Dichloroethane	5.8	U
156-59-2	cis-1,2-Dichloroethene	5.8	U
78-93-3	2-Butanone	12	U
74-97-5	Bromochloromethane	5.8	U
67-66-3	Chloroform	5.8	U
71-55-6	1,1,1-Trichloroethane	5.8	U
110-82-7	Cyclohexane	5.8	U
56-23-5	Carbon tetrachloride	5.8	U
71-43-2	Benzene	5.8	U
107-06-2	1,2-Dichloroethane	5.8	U
123-91-1	1,4-Dioxane	120	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

SOM01.2 (6/2007)

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AA8

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638

Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1238-03C

Sample wt/vol: 4.60 (g/mL) G

Lab File ID: V505165.D

Level: (TRACE/LOW/MED) LOW

Date Received: 07/25/2013

% Moisture: not dec. 6.1

Date Analyzed: 07/31/2013

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	5.8	U
108-87-2	Methylcyclohexane	5.8	U
78-87-5	1,2-Dichloropropane	5.8	U
75-27-4	Bromodichloromethane	5.8	U
10061-01-5	cis-1,3-Dichloropropene	5.8	U
108-10-1	4-Methyl-2-pentanone	12	U
108-88-3	Toluene	5.8	U
10061-02-6	trans-1,3-Dichloropropene	5.8	U
79-00-5	1,1,2-Trichloroethane	5.8	U
127-18-4	Tetrachloroethene	5.8	U
591-78-6	2-Hexanone	12	U
124-48-1	Dibromochloromethane	5.8	U
106-93-4	1,2-Dibromoethane	5.8	U
108-90-7	Chlorobenzene	5.8	U
100-41-4	Ethylbenzene	5.8	U
179601-23-1	m,p-Xylene	5.8	U
95-47-6	o-Xylene	5.8	U
100-42-5	Styrene	5.8	U
75-25-2	Bromoform	5.8	U
98-82-8	Isopropylbenzene	5.8	U
79-34-5	1,1,2,2-Tetrachloroethane	5.8	U
541-73-1	1,3-Dichlorobenzene	5.8	U
106-46-7	1,4-Dichlorobenzene	5.8	U
95-50-1	1,2-Dichlorobenzene	5.8	U
96-12-8	1,2-Dibromo-3-chloropropane	5.8	U
120-82-1	1,2,4-Trichlorobenzene	5.8	U
87-61-6	1,2,3-Trichlorobenzene	5.8	U

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
E0AA8

Lab Name: MITKEM LABORATORIES
Contract: EP-W-11-033
Lab Code: MITKEM
Case No.: 43638
Mod. Ref No.:
SDG No.: E0AA5
Matrix: (SOIL/SED/WATER) SOIL
Lab Sample ID: M1238-03C
Sample wt/vol: 4.60 (g/mL) G
Lab File ID: V505165.D
Level: (TRACE or LOW/MED) LOW
Date Received: 07/25/2013
% Moisture: not dec. 6.1
Date Analyzed: 07/31/2013
GC Column: DB-624
ID: 0.25 (mm)
Dilution Factor: 1.0
Soil Extract Volume: (uL)
Soil Aliquot Volume: (uL)
CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG
Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AA9

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638

Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1238-04C

Sample wt/vol: 4.40 (g/mL) G

Lab File ID: V505166.D

Level: (TRACE/LOW/MED) LOW

Date Received: 07/25/2013

% Moisture: not dec. 9.1

Date Analyzed: 07/31/2013

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	6.3	U
74-87-3	Chloromethane	6.3	U
75-01-4	Vinyl chloride	6.3	U
74-83-9	Bromomethane	6.3	U
75-00-3	Chloroethane	6.3	U
75-69-4	Trichlorofluoromethane	6.3	U
75-35-4	1,1-Dichloroethene	6.3	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	13	U
67-64-1	Acetone	6.3	U
75-15-0	Carbon disulfide	6.3	U
79-20-9	Methyl acetate	6.3	U
75-09-2	Methylene chloride	6.3	U
156-60-5	trans-1,2-Dichloroethene	6.3	U
1634-04-4	Methyl tert-butyl ether	6.3	U
75-34-3	1,1-Dichloroethane	6.3	U
156-59-2	cis-1,2-Dichloroethene	13	U
78-93-3	2-Butanone	6.3	U
74-97-5	Bromochloromethane	6.3	U
67-66-3	Chloroform	6.3	U
71-55-6	1,1,1-Trichloroethane	6.3	U
110-82-7	Cyclohexane	6.3	U
56-23-5	Carbon tetrachloride	6.3	U
71-43-2	Benzene	6.3	U
107-06-2	1,2-Dichloroethane	130	U
123-91-1	1,4-Dioxane		

Report 1,4-Dioxane for Low-Medium VOA analysis only

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AA9

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM

Case No.: 43638

Mod. Ref No.:

SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1238-04C

Sample wt/vol: 4.40 (g/mL) G

Lab File ID: V505166.D

Level: (TRACE/LOW/MED) LOW

Date Received: 07/25/2013

% Moisture: not dec. 9.1

Date Analyzed: 07/31/2013

GC Column: DB-624

ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	6.3	U
108-87-2	Methylcyclohexane	6.3	U
78-87-5	1,2-Dichloropropane	6.3	U
75-27-4	Bromodichloromethane	6.3	U
10061-01-5	cis-1,3-Dichloropropene	6.3	U
108-10-1	4-Methyl-2-pentanone	13	U
108-88-3	Toluene	6.3	U
10061-02-6	trans-1,3-Dichloropropene	6.3	U
79-00-5	1,1,2-Trichloroethane	6.3	U
127-18-4	Tetrachloroethene	6.3	U
591-78-6	2-Hexanone	13	U
124-48-1	Dibromochloromethane	6.3	U
106-93-4	1,2-Dibromoethane	6.3	U
108-90-7	Chlorobenzene	6.3	U
100-41-4	Ethylbenzene	6.3	U
179601-23-1	m,p-Xylene	6.3	U
95-47-6	o-Xylene	6.3	U
100-42-5	Styrene	6.3	U
75-25-2	Bromoform	6.3	U
98-82-8	Isopropylbenzene	6.3	U
79-34-5	1,1,2,2-Tetrachloroethane	6.3	U
541-73-1	1,3-Dichlorobenzene	6.3	U
106-46-7	1,4-Dichlorobenzene	6.3	U
95-50-1	1,2-Dichlorobenzene	6.3	U
96-12-8	1,2-Dibromo-3-chloropropane	6.3	U
120-82-1	1,2,4-Trichlorobenzene	6.3	U
87-61-6	1,2,3-Trichlorobenzene	6.3	U

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
E0AA9

Lab Name: MITKEM LABORATORIES
Contract: EP-W-11-033
Lab Code: MITKEM Case No.: 43638
Mod. Ref No.: SDG No.: E0AA5
Matrix: (SOIL/SED/WATER) SOIL
Lab Sample ID: M1238-04C
Sample wt/vol: 4.40 (g/mL) G
Lab File ID: V505166.D
Level: (TRACE or LOW/MED) LOW
Date Received: 07/25/2013
% Moisture: not dec. 9.1
Date Analyzed: 07/31/2013
GC Column: DB-624 ID: 0.25 (mm)
Dilution Factor: 1.0
Soil Extract Volume: (uL)
Soil Aliquot Volume: (uL)
CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG
Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

SOM01.2 (6/2007)

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AB0

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638

Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1238-05C

Sample wt/vol: 3.80 (g/mL) G

Lab File ID: V505167.D

Level: (TRACE/LOW/MED) LOW

Date Received: 07/25/2013

% Moisture: not dec. 7.3

Date Analyzed: 07/31/2013

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	7.1	U
74-87-3	Chloromethane	7.1	U
75-01-4	Vinyl chloride	7.1	U
74-83-9	Bromomethane	7.1	U
75-00-3	Chloroethane	7.1	U
75-69-4	Trichlorofluoromethane	7.1	U
75-35-4	1,1-Dichloroethene	7.1	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	7.1	U
67-64-1	Acetone	14	U
75-15-0	Carbon disulfide	7.1	U
79-20-9	Methyl acetate	7.1	U
75-09-2	Methylene chloride	7.1	U
156-60-5	trans-1,2-Dichloroethene	7.1	U
1634-04-4	Methyl tert-butyl ether	7.1	U
75-34-3	1,1-Dichloroethane	7.1	U
156-59-2	cis-1,2-Dichloroethene	7.1	U
78-93-3	2-Butanone	14	U
74-97-5	Bromochloromethane	7.1	U
67-66-3	Chloroform	7.1	U
71-55-6	1,1,1-Trichloroethane	7.1	U
110-82-7	Cyclohexane	7.1	U
56-23-5	Carbon tetrachloride	7.1	U
71-43-2	Benzene	7.1	U
107-06-2	1,2-Dichloroethane	7.1	U
123-91-1	1,4-Dioxane	140	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

SOM01.2 (6/2007)

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AB0

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638

Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1238-05C

Sample wt/vol: 3.80 (g/mL) G

Lab File ID: V505167.D

Level: (TRACE/LOW/MED) LOW

Date Received: 07/25/2013

% Moisture: not dec. 7.3

Date Analyzed: 07/31/2013

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	7.1	U
108-87-2	Methylcyclohexane	7.1	U
78-87-5	1,2-Dichloropropane	7.1	U
75-27-4	Bromodichloromethane	7.1	U
10061-01-5	cis-1,3-Dichloropropene	7.1	U
108-10-1	4-Methyl-2-pentanone	14	U
108-88-3	Toluene	7.1	U
10061-02-6	trans-1,3-Dichloropropene	7.1	U
79-00-5	1,1,2-Trichloroethane	7.1	U
127-18-4	Tetrachloroethene	7.1	U
591-78-6	2-Hexanone	14	U
124-48-1	Dibromochloromethane	7.1	U
106-93-4	1,2-Dibromoethane	7.1	U
108-90-7	Chlorobenzene	7.1	U
100-41-4	Ethylbenzene	7.1	U
179601-23-1	m,p-Xylene	7.1	U
95-47-6	o-Xylene	7.1	U
100-42-5	Styrene	7.1	U
75-25-2	Bromoform	7.1	U
98-82-8	Isopropylbenzene	7.1	U
79-34-5	1,1,2,2-Tetrachloroethane	7.1	U
541-73-1	1,3-Dichlorobenzene	7.1	U
106-46-7	1,4-Dichlorobenzene	7.1	U
95-50-1	1,2-Dichlorobenzene	7.1	U
96-12-8	1,2-Dibromo-3-chloropropane	7.1	U
120-82-1	1,2,4-Trichlorobenzene	7.1	U
87-61-6	1,2,3-Trichlorobenzene	7.1	U

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
E0AB0

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-05C

Sample wt/vol: 3.80 (g/mL) G Lab File ID: V505167.D

Level: (TRACE or LOW/MED) LOW Date Received: 07/25/2013

% Moisture: not dec. 7.3 Date Analyzed: 07/31/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

SOM01.2 (6/2007)

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AB1

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638

Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1238-06C

Sample wt/vol: 4.80 (g/mL) G

Lab File ID: V505168.D

Level: (TRACE/LOW/MED) LOW

Date Received: 07/25/2013

% Moisture: not dec. 6.2

Date Analyzed: 07/31/2013

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	5.6	U
74-87-3	Chloromethane	5.6	U
75-01-4	Vinyl chloride	5.6	U
74-83-9	Bromomethane	5.6	U
75-00-3	Chloroethane	5.6	U
75-69-4	Trichlorofluoromethane	5.6	U
75-35-4	1,1-Dichloroethene	5.6	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	11	U
67-64-1	Acetone	5.6	U
75-15-0	Carbon disulfide	5.6	U
79-20-9	Methyl acetate	5.6	U
75-09-2	Methylene chloride	5.6	U
156-60-5	trans-1,2-Dichloroethene	5.6	U
1634-04-4	Methyl tert-butyl ether	5.6	U
75-34-3	1,1-Dichloroethane	5.6	U
156-59-2	cis-1,2-Dichloroethene	11	U
78-93-3	2-Butanone	5.6	U
74-97-5	Bromochloromethane	5.6	U
67-66-3	Chloroform	5.6	U
71-55-6	1,1,1-Trichloroethane	5.6	U
110-82-7	Cyclohexane	5.6	U
56-23-5	Carbon tetrachloride	5.6	U
71-43-2	Benzene	5.6	U
107-06-2	1,2-Dichloroethane	110	U
123-91-1	1,4-Dioxane		

Report 1,4-Dioxane for Low-Medium VOA analysis only

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AB1

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-06C

Sample wt/vol: 4.80 (g/mL) G Lab File ID: V5O5168.D

Level: (TRACE/LOW/MED) LOW Date Received: 07/25/2013

% Moisture: not dec. 6.2 Date Analyzed: 07/31/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	5.6	U
108-87-2	Methylcyclohexane	5.6	U
78-87-5	1,2-Dichloropropane	5.6	U
75-27-4	Bromodichloromethane	5.6	U
10061-01-5	cis-1,3-Dichloropropene	5.6	U
108-10-1	4-Methyl-2-pentanone	11	U
108-88-3	Toluene	5.6	U
10061-02-6	trans-1,3-Dichloropropene	5.6	U
79-00-5	1,1,2-Trichloroethane	5.6	U
127-18-4	Tetrachloroethene	5.6	U
591-78-6	2-Hexanone	11	U
124-48-1	Dibromochloromethane	5.6	U
106-93-4	1,2-Dibromoethane	5.6	U
108-90-7	Chlorobenzene	5.6	U
100-41-4	Ethylbenzene	5.6	U
179601-23-1	m,p-Xylene	5.6	U
95-47-6	o-Xylene	5.6	U
100-42-5	Styrene	5.6	U
75-25-2	Bromoform	5.6	U
98-82-8	Isopropylbenzene	5.6	U
79-34-5	1,1,2,2-Tetrachloroethane	5.6	U
541-73-1	1,3-Dichlorobenzene	5.6	U
106-46-7	1,4-Dichlorobenzene	5.6	U
95-50-1	1,2-Dichlorobenzene	5.6	U
96-12-8	1,2-Dibromo-3-chloropropane	5.6	U
120-82-1	1,2,4-Trichlorobenzene	5.6	U
87-61-6	1,2,3-Trichlorobenzene	5.6	U

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
E0AB1

Lab Name: MITKEM LABORATORIES
Contract: EP-W-11-033
Lab Code: MITKEM
Case No.: 43638
Mod. Ref No.:
SDG No.: E0AA5
Matrix: (SOIL/SED/WATER) SOIL
Lab Sample ID: M1238-06C
Sample wt/vol: 4.80 (g/mL) G
Lab File ID: V5O5168.D
Level: (TRACE or LOW/MED) LOW
Date Received: 07/25/2013
% Moisture: not dec. 6.2
Date Analyzed: 07/31/2013
GC Column: DB-624
ID: 0.25 (mm)
Dilution Factor: 1.0
Soil Extract Volume: (uL)
Soil Aliquot Volume: (uL)
CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG
Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

SOM01.2 (6/2007)

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AB2

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-07C

Sample wt/vol: 3.80 (g/mL) G Lab File ID: V505169.D

Level: (TRACE/LOW/MED) LOW Date Received: 07/25/2013

% Moisture: not dec. 2.0 Date Analyzed: 07/31/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	6.7	U
74-87-3	Chloromethane	6.7	U
75-01-4	Vinyl chloride	6.7	U
74-83-9	Bromomethane	6.7	U
75-00-3	Chloroethane	6.7	U
75-69-4	Trichlorofluoromethane	6.7	U
75-35-4	1,1-Dichloroethene	6.7	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	6.7	U
67-64-1	Acetone	13	U
75-15-0	Carbon disulfide	6.7	U
79-20-9	Methyl acetate	6.7	U
75-09-2	Methylene chloride	6.7	U
156-60-5	trans-1,2-Dichloroethene	6.7	U
1634-04-4	Methyl tert-butyl ether	6.7	U
75-34-3	1,1-Dichloroethane	6.7	U
156-59-2	cis-1,2-Dichloroethene	6.7	U
78-93-3	2-Butanone	13	U
74-97-5	Bromochloromethane	6.7	U
67-66-3	Chloroform	6.7	U
71-55-6	1,1,1-Trichloroethane	6.7	U
110-82-7	Cyclohexane	6.7	U
56-23-5	Carbon tetrachloride	6.7	U
71-43-2	Benzene	6.7	U
107-06-2	1,2-Dichloroethane	6.7	U
123-91-1	1,4-Dioxane	130	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

SOM01.2 (6/2007)

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AB2

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638

Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1238-07C

Sample wt/vol: 3.80 (g/mL) G

Lab File ID: V505169.D

Level: (TRACE/LOW/MED) LOW

Date Received: 07/25/2013

% Moisture: not dec. 2.0

Date Analyzed: 07/31/2013

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	6.7	U
108-87-2	Methylcyclohexane	6.7	U
78-87-5	1,2-Dichloropropane	6.7	U
75-27-4	Bromodichloromethane	6.7	U
10061-01-5	cis-1,3-Dichloropropene	6.7	U
108-10-1	4-Methyl-2-pentanone	13	U
108-88-3	Toluene	6.7	U
10061-02-6	trans-1,3-Dichloropropene	6.7	U
79-00-5	1,1,2-Trichloroethane	6.7	U
127-18-4	Tetrachloroethene	6.7	U
591-78-6	2-Hexanone	13	U
124-48-1	Dibromochloromethane	6.7	U
106-93-4	1,2-Dibromoethane	6.7	U
108-90-7	Chlorobenzene	6.7	U
100-41-4	Ethylbenzene	6.7	U
179601-23-1	m,p-Xylene	6.7	U
95-47-6	o-Xylene	6.7	U
100-42-5	Styrene	6.7	U
75-25-2	Bromoform	6.7	U
98-82-8	Isopropylbenzene	6.7	U
79-34-5	1,1,2,2-Tetrachloroethane	6.7	U
541-73-1	1,3-Dichlorobenzene	6.7	U
106-46-7	1,4-Dichlorobenzene	6.7	U
95-50-1	1,2-Dichlorobenzene	6.7	U
96-12-8	1,2-Dibromo-3-chloropropane	6.7	U
120-82-1	1,2,4-Trichlorobenzene	6.7	U
87-61-6	1,2,3-Trichlorobenzene	6.7	U

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
E0AB2

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-07C

Sample wt/vol: 3.80 (g/mL) G Lab File ID: V505169.D

Level: (TRACE or LOW/MED) LOW Date Received: 07/25/2013

% Moisture: not dec. 2.0 Date Analyzed: 07/31/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

SOM01.2 (6/2007)

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AB2MS

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638

Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1238-07CMS

Sample wt/vol: 3.40 (g/mL) G

Lab File ID: V505115.D

Level: (TRACE/LOW/MED) LOW

Date Received: 07/25/2013

% Moisture: not dec. 2.0

Date Analyzed: 07/29/2013

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	7.5	U
74-87-3	Chloromethane	7.5	U
75-01-4	Vinyl chloride	7.5	U
74-83-9	Bromomethane	7.5	U
75-00-3	Chloroethane	7.5	U
75-69-4	Trichlorofluoromethane	61	
75-35-4	1,1-Dichloroethene	7.5	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	15	U
67-64-1	Acetone	7.5	U
75-15-0	Carbon disulfide	7.5	U
79-20-9	Methyl acetate	7.5	U
75-09-2	Methylene chloride	7.5	U
156-60-5	trans-1,2-Dichloroethene	7.5	U
1634-04-4	Methyl tert-butyl ether	7.5	U
75-34-3	1,1-Dichloroethane	7.5	U
156-59-2	cis-1,2-Dichloroethene	15	U
78-93-3	2-Butanone	7.5	U
74-97-5	Bromochloromethane	7.5	U
67-66-3	Chloroform	7.5	U
71-55-6	1,1,1-Trichloroethane	7.5	U
110-82-7	Cyclohexane	7.5	U
56-23-5	Carbon tetrachloride	71	
71-43-2	Benzene	7.5	U
107-06-2	1,2-Dichloroethane	150	U
123-91-1	1,4-Dioxane		

Report 1,4-Dioxane for Low-Medium VOA analysis only

SOM01.2 (6/2007)

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AB2MS

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-07CMS

Sample wt/vol: 3.40 (g/mL) G Lab File ID: V505115.D

Level: (TRACE/LOW/MED) LOW Date Received: 07/25/2013

% Moisture: not dec. 2.0 Date Analyzed: 07/29/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	67	
108-87-2	Methylcyclohexane	7.5	U
78-87-5	1,2-Dichloropropane	7.5	U
75-27-4	Bromodichloromethane	7.5	U
10061-01-5	cis-1,3-Dichloropropene	7.5	U
108-10-1	4-Methyl-2-pentanone	15	U
108-88-3	Toluene	69	
10061-02-6	trans-1,3-Dichloropropene	7.5	U
79-00-5	1,1,2-Trichloroethane	7.5	U
127-18-4	Tetrachloroethene	7.5	U
591-78-6	2-Hexanone	15	U
124-48-1	Dibromochloromethane	7.5	U
106-93-4	1,2-Dibromoethane	7.5	U
108-90-7	Chlorobenzene	71	
100-41-4	Ethylbenzene	7.5	U
179601-23-1	m,p-Xylene	7.5	U
95-47-6	o-Xylene	7.5	U
100-42-5	Styrene	7.5	U
75-25-2	Bromoform	7.5	U
98-82-8	Isopropylbenzene	7.5	U
79-34-5	1,1,2,2-Tetrachloroethane	7.5	U
541-73-1	1,3-Dichlorobenzene	7.5	U
106-46-7	1,4-Dichlorobenzene	7.5	U
95-50-1	1,2-Dichlorobenzene	7.5	U
96-12-8	1,2-Dibromo-3-chloropropane	7.5	U
120-82-1	1,2,4-Trichlorobenzene	7.5	U
87-61-6	1,2,3-Trichlorobenzene	7.5	U

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AB2MSD

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638

Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1238-07CMSD

Sample wt/vol: 3.70 (g/mL) G

Lab File ID: V505116.D

Level: (TRACE/LOW/MED) LOW

Date Received: 07/25/2013

% Moisture: not dec. 2.0

Date Analyzed: 07/29/2013

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	6.9	U
74-87-3	Chloromethane	6.9	U
75-01-4	Vinyl chloride	6.9	U
74-83-9	Bromomethane	6.9	U
75-00-3	Chloroethane	6.9	U
75-69-4	Trichlorofluoromethane	6.9	U
75-35-4	1,1-Dichloroethene	54	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	6.9	U
67-64-1	Acetone	14	U
75-15-0	Carbon disulfide	6.9	U
79-20-9	Methyl acetate	6.9	U
75-09-2	Methylene chloride	6.9	U
156-60-5	trans-1,2-Dichloroethene	6.9	U
1634-04-4	Methyl tert-butyl ether	6.9	U
75-34-3	1,1-Dichloroethane	6.9	U
156-59-2	cis-1,2-Dichloroethene	14	U
78-93-3	2-Butanone	6.9	U
74-97-5	Bromochloromethane	6.9	U
67-66-3	Chloroform	6.9	U
71-55-6	1,1,1-Trichloroethane	6.9	U
110-82-7	Cyclohexane	6.9	U
56-23-5	Carbon tetrachloride	64	
71-43-2	Benzene	6.9	U
107-06-2	1,2-Dichloroethane	140	U
123-91-1	1,4-Dioxane		

Report 1,4-Dioxane for Low-Medium VOA analysis only

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AB2MSD

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-07CMSD

Sample wt/vol: 3.70 (g/mL) G Lab File ID: V505116.D

Level: (TRACE/LOW/MED) LOW Date Received: 07/25/2013

% Moisture: not dec. 2.0 Date Analyzed: 07/29/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	61	
108-87-2	Methylcyclohexane	6.9	U
78-87-5	1,2-Dichloropropane	6.9	U
75-27-4	Bromodichloromethane	6.9	U
10061-01-5	cis-1,3-Dichloropropene	6.9	U
108-10-1	4-Methyl-2-pentanone	14	U
108-88-3	Toluene	64	
10061-02-6	trans-1,3-Dichloropropene	6.9	U
79-00-5	1,1,2-Trichloroethane	6.9	U
127-18-4	Tetrachloroethene	6.9	U
591-78-6	2-Hexanone	14	U
124-48-1	Dibromochloromethane	6.9	U
106-93-4	1,2-Dibromoethane	6.9	U
108-90-7	Chlorobenzene	65	
100-41-4	Ethylbenzene	6.9	U
179601-23-1	m,p-Xylene	6.9	U
95-47-6	o-Xylene	6.9	U
100-42-5	Styrene	6.9	U
75-25-2	Bromoform	6.9	U
98-82-8	Isopropylbenzene	6.9	U
79-34-5	1,1,2,2-Tetrachloroethane	6.9	U
541-73-1	1,3-Dichlorobenzene	6.9	U
106-46-7	1,4-Dichlorobenzene	6.9	U
95-50-1	1,2-Dichlorobenzene	6.9	U
96-12-8	1,2-Dibromo-3-chloropropane	6.9	U
120-82-1	1,2,4-Trichlorobenzene	6.9	U
87-61-6	1,2,3-Trichlorobenzene	6.9	U

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AB3

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638

Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1238-08C

Sample wt/vol: 4.60 (g/mL) G

Lab File ID: V505170.D

Level: (TRACE/LOW/MED) LOW

Date Received: 07/25/2013

% Moisture: not dec. 33

Date Analyzed: 07/31/2013

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	8.1	U
74-87-3	Chloromethane	8.1	U
75-01-4	Vinyl chloride	8.1	U
74-83-9	Bromomethane	8.1	U
75-00-3	Chloroethane	8.1	U
75-69-4	Trichlorofluoromethane	8.1	U
75-35-4	1,1-Dichloroethene	8.1	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	8.1	U
67-64-1	Acetone	16	U
75-15-0	Carbon disulfide	8.1	U
79-20-9	Methyl acetate	8.1	U
75-09-2	Methylene chloride	8.1	U
156-60-5	trans-1,2-Dichloroethene	8.1	U
1634-04-4	Methyl tert-butyl ether	8.1	U
75-34-3	1,1-Dichloroethane	8.1	U
156-59-2	cis-1,2-Dichloroethene	8.1	U
78-93-3	2-Butanone	16	U
74-97-5	Bromochloromethane	8.1	U
67-66-3	Chloroform	8.1	U
71-55-6	1,1,1-Trichloroethane	8.1	U
110-82-7	Cyclohexane	8.1	U
56-23-5	Carbon tetrachloride	8.1	U
71-43-2	Benzene	8.1	U
107-06-2	1,2-Dichloroethane	8.1	U
123-91-1	1,4-Dioxane	160	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

SOM01.2 (6/2007)

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AB3

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM

Case No.: 43638

Mod. Ref No.:

SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1238-08C

Sample wt/vol: 4.60 (g/mL) G

Lab File ID: V505170.D

Level: (TRACE/LOW/MED) LOW

Date Received: 07/25/2013

% Moisture: not dec. 33

Date Analyzed: 07/31/2013

GC Column: DB-624

ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	8.1	U
108-87-2	Methylcyclohexane	8.1	U
78-87-5	1,2-Dichloropropane	8.1	U
75-27-4	Bromodichloromethane	8.1	U
10061-01-5	cis-1,3-Dichloropropene	8.1	U
108-10-1	4-Methyl-2-pentanone	16	U
108-88-3	Toluene	8.1	U
10061-02-6	trans-1,3-Dichloropropene	8.1	U
79-00-5	1,1,2-Trichloroethane	8.1	U
127-18-4	Tetrachloroethene	8.1	U
591-78-6	2-Hexanone	16	U
124-48-1	Dibromochloromethane	8.1	U
106-93-4	1,2-Dibromoethane	8.1	U
108-90-7	Chlorobenzene	8.1	U
100-41-4	Ethylbenzene	8.1	U
179601-23-1	m,p-Xylene	8.1	U
95-47-6	o-Xylene	8.1	U
100-42-5	Styrene	8.1	U
75-25-2	Bromoform	8.1	U
98-82-8	Isopropylbenzene	8.1	U
79-34-5	1,1,2,2-Tetrachloroethane	8.1	U
541-73-1	1,3-Dichlorobenzene	8.1	U
106-46-7	1,4-Dichlorobenzene	8.1	U
95-50-1	1,2-Dichlorobenzene	8.1	U
96-12-8	1,2-Dibromo-3-chloropropane	8.1	U
120-82-1	1,2,4-Trichlorobenzene	8.1	U
87-61-6	1,2,3-Trichlorobenzene	8.1	U

EPA SAMPLE NO.

E0AB3

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: MITKEM LABORATORIES
Contract: EP-W-11-033
Lab Code: MITKEM
Case No.: 43638
Mod. Ref No.:
SDG No.: E0AA5
Matrix: (SOIL/SED/WATER) SOIL
Lab Sample ID: M1238-08C
Sample wt/vol: 4.60 (g/mL) G
Lab File ID: V505170.D
Level: (TRACE or LOW/MED) LOW
Date Received: 07/25/2013
% Moisture: not dec. 33
Date Analyzed: 07/31/2013
GC Column: DB-624
ID: 0.25 (mm)
Dilution Factor: 1.0
Soil Extract Volume: (uL)
Soil Aliquot Volume: (uL)
CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG
Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

SOM01.2 (6/2007)

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AB4

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM

Case No.: 43638

Mod. Ref No.:

SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1238-09C

Sample wt/vol: 3.80 (g/mL) G

Lab File ID: V505171.D

Level: (TRACE/LOW/MED) LOW

Date Received: 07/25/2013

% Moisture: not dec. 18

Date Analyzed: 07/31/2013

GC Column: DB-624

ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	8.0	U
74-87-3	Chloromethane	8.0	U
75-01-4	Vinyl chloride	8.0	U
74-83-9	Bromomethane	8.0	U
75-00-3	Chloroethane	8.0	U
75-69-4	Trichlorofluoromethane	8.0	U
75-35-4	1,1-Dichloroethene	8.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	8.0	U
67-64-1	Acetone	16	U
75-15-0	Carbon disulfide	8.0	U
79-20-9	Methyl acetate	8.0	U
75-09-2	Methylene chloride	8.0	U
156-60-5	trans-1,2-Dichloroethene	8.0	U
1634-04-4	Methyl tert-butyl ether	8.0	U
75-34-3	1,1-Dichloroethane	8.0	U
156-59-2	cis-1,2-Dichloroethene	8.0	U
78-93-3	2-Butanone	16	U
74-97-5	Bromochloromethane	8.0	U
67-66-3	Chloroform	8.0	U
71-55-6	1,1,1-Trichloroethane	8.0	U
110-82-7	Cyclohexane	8.0	U
56-23-5	Carbon tetrachloride	8.0	U
71-43-2	Benzene	8.0	U
107-06-2	1,2-Dichloroethane	8.0	U
123-91-1	1,4-Dioxane	160	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

SOM01.2 (6/2007)

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AB4

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638

Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1238-09C

Sample wt/vol: 3.80 (g/mL) G

Lab File ID: V505171.D

Level: (TRACE/LOW/MED) LOW

Date Received: 07/25/2013

% Moisture: not dec. 18

Date Analyzed: 07/31/2013

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	8.0	U
108-87-2	Methylcyclohexane	8.0	U
78-87-5	1,2-Dichloropropane	8.0	U
75-27-4	Bromodichloromethane	8.0	U
10061-01-5	cis-1,3-Dichloropropene	16	U
108-10-1	4-Methyl-2-pentanone	8.0	U
108-88-3	Toluene	8.0	U
10061-02-6	trans-1,3-Dichloropropene	8.0	U
79-00-5	1,1,2-Trichloroethane	8.0	U
127-18-4	Tetrachloroethene	16	U
591-78-6	2-Hexanone	8.0	U
124-48-1	Dibromochloromethane	8.0	U
106-93-4	1,2-Dibromoethane	8.0	U
108-90-7	Chlorobenzene	8.0	U
100-41-4	Ethylbenzene	8.0	U
179601-23-1	m,p-Xylene	8.0	U
95-47-6	o-Xylene	8.0	U
100-42-5	Styrene	8.0	U
75-25-2	Bromoform	8.0	U
98-82-8	Isopropylbenzene	8.0	U
79-34-5	1,1,2,2-Tetrachloroethane	8.0	U
541-73-1	1,3-Dichlorobenzene	8.0	U
106-46-7	1,4-Dichlorobenzene	8.0	U
95-50-1	1,2-Dichlorobenzene	8.0	U
96-12-8	1,2-Dibromo-3-chloropropane	8.0	U
120-82-1	1,2,4-Trichlorobenzene	8.0	U
87-61-6	1,2,3-Trichlorobenzene	8.0	U

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
E0AB4

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-09C

Sample wt/vol: 3.80 (g/mL) G Lab File ID: V505171.D

Level: (TRACE or LOW/MED) LOW Date Received: 07/25/2013

% Moisture: not dec. 18 Date Analyzed: 07/31/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

SOM01.2 (6/2007)

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AB5

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638

Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1238-10C

Sample wt/vol: 4.00 (g/mL) G

Lab File ID: V505172.D

Level: (TRACE/LOW/MED) LOW

Date Received: 07/25/2013

% Moisture: not dec. 23

Date Analyzed: 07/31/2013

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	8.1	U
74-87-3	Chloromethane	8.1	U
75-01-4	Vinyl chloride	8.1	U
74-83-9	Bromomethane	8.1	U
75-00-3	Chloroethane	8.1	U
75-69-4	Trichlorofluoromethane	8.1	U
75-35-4	1,1-Dichloroethene	8.1	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	16	U
67-64-1	Acetone	8.1	U
75-15-0	Carbon disulfide	8.1	U
79-20-9	Methyl acetate	8.1	U
75-09-2	Methylene chloride	8.1	U
156-60-5	trans-1,2-Dichloroethene	8.1	U
1634-04-4	Methyl tert-butyl ether	8.1	U
75-34-3	1,1-Dichloroethane	8.1	U
156-59-2	cis-1,2-Dichloroethene	16	U
78-93-3	2-Butanone	8.1	U
74-97-5	Bromochloromethane	8.1	U
67-66-3	Chloroform	8.1	U
71-55-6	1,1,1-Trichloroethane	8.1	U
110-82-7	Cyclohexane	8.1	U
56-23-5	Carbon tetrachloride	8.1	U
71-43-2	Benzene	8.1	U
107-06-2	1,2-Dichloroethane	160	U
123-91-1	1,4-Dioxane		

Report 1,4-Dioxane for Low-Medium VOA analysis only

1B - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
E0AB5

Lab Name: MITKEM LABORATORIES
Contract: EP-W-11-033
Lab Code: MITKEM
Case No.: 43638
Mod. Ref No.:
SDG No.: E0AA5
Matrix: (SOIL/SED/WATER) SOIL
Lab Sample ID: M1238-10C
Sample wt/vol: 4.00 (g/mL) G
Lab File ID: V505172.D
Level: (TRACE/LOW/MED) LOW
Date Received: 07/25/2013
% Moisture: not dec. 23
Date Analyzed: 07/31/2013
GC Column: DB-624
ID: 0.25 (mm)
Dilution Factor: 1.0
Soil Extract Volume: (uL)
Soil Aliquot Volume: (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	8.1	U
108-87-2	Methylcyclohexane	8.1	U
78-87-5	1,2-Dichloropropane	8.1	U
75-27-4	Bromodichloromethane	8.1	U
10061-01-5	cis-1,3-Dichloropropene	8.1	U
108-10-1	4-Methyl-2-pentanone	16	U
108-88-3	Toluene	8.1	U
10061-02-6	trans-1,3-Dichloropropene	8.1	U
79-00-5	1,1,2-Trichloroethane	8.1	U
127-18-4	Tetrachloroethene	8.1	U
591-78-6	2-Hexanone	16	U
124-48-1	Dibromochloromethane	8.1	U
106-93-4	1,2-Dibromoethane	8.1	U
108-90-7	Chlorobenzene	8.1	U
100-41-4	Ethylbenzene	8.1	U
179601-23-1	m,p-Xylene	8.1	U
95-47-6	o-Xylene	8.1	U
100-42-5	Styrene	8.1	U
75-25-2	Bromoform	8.1	U
98-82-8	Isopropylbenzene	8.1	U
79-34-5	1,1,2,2-Tetrachloroethane	8.1	U
541-73-1	1,3-Dichlorobenzene	8.1	U
106-46-7	1,4-Dichlorobenzene	8.1	U
95-50-1	1,2-Dichlorobenzene	8.1	U
96-12-8	1,2-Dibromo-3-chloropropane	8.1	U
120-82-1	1,2,4-Trichlorobenzene	8.1	U
87-61-6	1,2,3-Trichlorobenzene	8.1	U

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
E0AB5

Lab Name: MITKEM LABORATORIES
Contract: EP-W-11-033
Lab Code: MITKEM Case No.: 43638
Mod. Ref No.: SDG No.: E0AA5
Matrix: (SOIL/SED/WATER) SOIL
Lab Sample ID: M1238-10C
Sample wt/vol: 4.00 (g/mL) G
Lab File ID: V505172.D
Level: (TRACE or LOW/MED) LOW
Date Received: 07/25/2013
% Moisture: not dec. 23
Date Analyzed: 07/31/2013
GC Column: DB-624 ID: 0.25 (mm)
Dilution Factor: 1.0
Soil Extract Volume: (uL)
Soil Aliquot Volume: (uL)
CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG
Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

SOM01.2 (6/2007)

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AB6

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-11C

Sample wt/vol: 5.20 (g/mL) G Lab File ID: V505173.D

Level: (TRACE/LOW/MED) LOW Date Received: 07/25/2013

% Moisture: not dec. 36 Date Analyzed: 07/31/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	7.5	U
74-87-3	Chloromethane	7.5	U
75-01-4	Vinyl chloride	7.5	U
74-83-9	Bromomethane	7.5	U
75-00-3	Chloroethane	7.5	U
75-69-4	Trichlorofluoromethane	7.5	U
75-35-4	1,1-Dichloroethene	7.5	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	7.5	U
67-64-1	Acetone	15	U
75-15-0	Carbon disulfide	7.5	U
79-20-9	Methyl acetate	7.5	U
75-09-2	Methylene chloride	7.5	U
156-60-5	trans-1,2-Dichloroethene	7.5	U
1634-04-4	Methyl tert-butyl ether	7.5	U
75-34-3	1,1-Dichloroethane	7.5	U
156-59-2	cis-1,2-Dichloroethene	7.5	U
78-93-3	2-Butanone	15	U
74-97-5	Bromochloromethane	7.5	U
67-66-3	Chloroform	7.5	U
71-55-6	1,1,1-Trichloroethane	7.5	U
110-82-7	Cyclohexane	7.5	U
56-23-5	Carbon tetrachloride	7.5	U
71-43-2	Benzene	7.5	U
107-06-2	1,2-Dichloroethane	7.5	U
123-91-1	1,4-Dioxane	150	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

SOM01.2 (6/2007)

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AB6

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638

Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1238-11C

Sample wt/vol: 5.20 (g/mL) G

Lab File ID: V505173.D

Level: (TRACE/LOW/MED) LOW

Date Received: 07/25/2013

% Moisture: not dec. 36

Date Analyzed: 07/31/2013

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	7.5	U
108-87-2	Methylcyclohexane	7.5	U
78-87-5	1,2-Dichloropropane	7.5	U
75-27-4	Bromodichloromethane	7.5	U
10061-01-5	cis-1,3-Dichloropropene	15	U
108-10-1	4-Methyl-2-pentanone	7.5	U
108-88-3	Toluene	7.5	U
10061-02-6	trans-1,3-Dichloropropene	7.5	U
79-00-5	1,1,2-Trichloroethane	7.5	U
127-18-4	Tetrachloroethene	15	U
591-78-6	2-Hexanone	7.5	U
124-48-1	Dibromochloromethane	7.5	U
106-93-4	1,2-Dibromoethane	7.5	U
108-90-7	Chlorobenzene	7.5	U
100-41-4	Ethylbenzene	7.5	U
179601-23-1	m,p-Xylene	7.5	U
95-47-6	o-Xylene	7.5	U
100-42-5	Styrene	7.5	U
75-25-2	Bromoform	7.5	U
98-82-8	Isopropylbenzene	7.5	U
79-34-5	1,1,2,2-Tetrachloroethane	7.5	U
541-73-1	1,3-Dichlorobenzene	7.5	U
106-46-7	1,4-Dichlorobenzene	7.5	U
95-50-1	1,2-Dichlorobenzene	7.5	U
96-12-8	1,2-Dibromo-3-chloropropane	7.5	U
120-82-1	1,2,4-Trichlorobenzene	7.5	U
87-61-6	1,2,3-Trichlorobenzene	7.5	U

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
E0AB6

Lab Name: MITKEM LABORATORIES
Contract: EP-W-11-033
Lab Code: MITKEM
Case No.: 43638
Mod. Ref No.:
SDG No.: E0AA5
Matrix: (SOIL/SED/WATER) SOIL
Lab Sample ID: M1238-11C
Sample wt/vol: 5.20 (g/mL) G
Lab File ID: V505173.D
Level: (TRACE or LOW/MED) LOW
Date Received: 07/25/2013
% Moisture: not dec. 36
Date Analyzed: 07/31/2013
GC Column: DB-624
ID: 0.25 (mm)
Dilution Factor: 1.0
Soil Extract Volume: (uL)
Soil Aliquot Volume: (uL)
CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG
Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E9667961	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

SOM01.2 (6/2007)

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AB7

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638

Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1238-12C

Sample wt/vol: 4.40 (g/mL) G

Lab File ID: V505174.D

Level: (TRACE/LOW/MED) LOW

Date Received: 07/25/2013

% Moisture: not dec. 36

Date Analyzed: 07/31/2013

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	8.9	U
74-87-3	Chloromethane	8.9	U
75-01-4	Vinyl chloride	8.9	U
74-83-9	Bromomethane	8.9	U
75-00-3	Chloroethane	8.9	U
75-69-4	Trichlorofluoromethane	8.9	U
75-35-4	1,1-Dichloroethene	8.9	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	18	U
67-64-1	Acetone	8.9	U
75-15-0	Carbon disulfide	8.9	U
79-20-9	Methyl acetate	8.9	U
75-09-2	Methylene chloride	8.9	U
156-60-5	trans-1,2-Dichloroethene	8.9	U
1634-04-4	Methyl tert-butyl ether	8.9	U
75-34-3	1,1-Dichloroethane	8.9	U
156-59-2	cis-1,2-Dichloroethene	18	U
78-93-3	2-Butanone	8.9	U
74-97-5	Bromochloromethane	8.9	U
67-66-3	Chloroform	8.9	U
71-55-6	1,1,1-Trichloroethane	8.9	U
110-82-7	Cyclohexane	8.9	U
56-23-5	Carbon tetrachloride	8.9	U
71-43-2	Benzene	8.9	U
107-06-2	1,2-Dichloroethane	180	U
123-91-1	1,4-Dioxane		

Report 1,4-Dioxane for Low-Medium VOA analysis only

SOM01.2 (6/2007)

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AB7

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM

Case No.: 43638

Mod. Ref No.:

SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1238-12C

Sample wt/vol: 4.40 (g/mL) G

Lab File ID: V505174.D

Level: (TRACE/LOW/MED) LOW

Date Received: 07/25/2013

% Moisture: not dec. 36

Date Analyzed: 07/31/2013

GC Column: DB-624

ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	8.9	U
108-87-2	Methylcyclohexane	8.9	U
78-87-5	1,2-Dichloropropane	8.9	U
75-27-4	Bromodichloromethane	8.9	U
10061-01-5	cis-1,3-Dichloropropene	8.9	U
108-10-1	4-Methyl-2-pentanone	18	U
108-88-3	Toluene	8.9	U
10061-02-6	trans-1,3-Dichloropropene	8.9	U
79-00-5	1,1,2-Trichloroethane	8.9	U
127-18-4	Tetrachloroethene	8.9	U
591-78-6	2-Hexanone	18	U
124-48-1	Dibromochloromethane	8.9	U
106-93-4	1,2-Dibromoethane	8.9	U
108-90-7	Chlorobenzene	8.9	U
100-41-4	Ethylbenzene	8.9	U
179601-23-1	m,p-Xylene	8.9	U
95-47-6	o-Xylene	8.9	U
100-42-5	Styrene	8.9	U
75-25-2	Bromoform	8.9	U
98-82-8	Isopropylbenzene	8.9	U
79-34-5	1,1,2,2-Tetrachloroethane	8.9	U
541-73-1	1,3-Dichlorobenzene	8.9	U
106-46-7	1,4-Dichlorobenzene	8.9	U
95-50-1	1,2-Dichlorobenzene	8.9	U
96-12-8	1,2-Dibromo-3-chloropropane	8.9	U
120-82-1	1,2,4-Trichlorobenzene	8.9	U
87-61-6	1,2,3-Trichlorobenzene	8.9	U

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
E0AB7

Lab Name: MITKEM LABORATORIES
Contract: EP-W-11-033
Lab Code: MITKEM Case No.: 43638
Mod. Ref No.: SDG No.: E0AA5
Matrix: (SOIL/SED/WATER) SOIL
Lab Sample ID: M1238-12C
Sample wt/vol: 4.40 (g/mL) G
Lab File ID: V505174.D
Level: (TRACE or LOW/MED) LOW
Date Received: 07/25/2013
% Moisture: not dec. 36
Date Analyzed: 07/31/2013
GC Column: DB-624 ID: 0.25 (mm)
Dilution Factor: 1.0
Soil Extract Volume: (uL)
Soil Aliquot Volume: (uL)
CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG
Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

SOM01.2 (6/2007)

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AB8

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-13C

Sample wt/vol: 4.20 (g/mL) G Lab File ID: V505175.D

Level: (TRACE/LOW/MED) LOW Date Received: 07/25/2013

% Moisture: not dec. 23 Date Analyzed: 07/31/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	7.8	U
74-87-3	Chloromethane	7.8	U
75-01-4	Vinyl chloride	7.8	U
74-83-9	Bromomethane	7.8	U
75-00-3	Chloroethane	7.8	U
75-69-4	Trichlorofluoromethane	7.8	U
75-35-4	1,1-Dichloroethene	7.8	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	7.8	U
67-64-1	Acetone	16	U
75-15-0	Carbon disulfide	7.8	U
79-20-9	Methyl acetate	7.8	U
75-09-2	Methylene chloride	7.8	U
156-60-5	trans-1,2-Dichloroethene	7.8	U
1634-04-4	Methyl tert-butyl ether	7.8	U
75-34-3	1,1-Dichloroethane	7.8	U
156-59-2	cis-1,2-Dichloroethene	7.8	U
78-93-3	2-Butanone	16	U
74-97-5	Bromochloromethane	7.8	U
67-66-3	Chloroform	7.8	U
71-55-6	1,1,1-Trichloroethane	7.8	U
110-82-7	Cyclohexane	7.8	U
56-23-5	Carbon tetrachloride	7.8	U
71-43-2	Benzene	7.8	U
107-06-2	1,2-Dichloroethane	7.8	U
123-91-1	1,4-Dioxane	160	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

SOM01.2 (6/2007)

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AB8

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638

Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1238-13C

Sample wt/vol: 4.20 (g/mL) G

Lab File ID: V505175.D

Level: (TRACE/LOW/MED) LOW

Date Received: 07/25/2013

% Moisture: not dec. 23

Date Analyzed: 07/31/2013

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	7.8	U
108-87-2	Methylcyclohexane	7.8	U
78-87-5	1,2-Dichloropropane	7.8	U
75-27-4	Bromodichloromethane	7.8	U
10061-01-5	cis-1,3-Dichloropropene	7.8	U
108-10-1	4-Methyl-2-pentanone	16	U
108-88-3	Toluene	7.8	U
10061-02-6	trans-1,3-Dichloropropene	7.8	U
79-00-5	1,1,2-Trichloroethane	7.8	U
127-18-4	Tetrachloroethene	7.8	U
591-78-6	2-Hexanone	16	U
124-48-1	Dibromochloromethane	7.8	U
106-93-4	1,2-Dibromoethane	7.8	U
108-90-7	Chlorobenzene	7.8	U
100-41-4	Ethylbenzene	7.8	U
179601-23-1	m,p-Xylene	7.8	U
95-47-6	o-Xylene	7.8	U
100-42-5	Styrene	7.8	U
75-25-2	Bromoform	7.8	U
98-82-8	Isopropylbenzene	7.8	U
79-34-5	1,1,2,2-Tetrachloroethane	7.8	U
541-73-1	1,3-Dichlorobenzene	7.8	U
106-46-7	1,4-Dichlorobenzene	7.8	U
95-50-1	1,2-Dichlorobenzene	7.8	U
96-12-8	1,2-Dibromo-3-chloropropane	7.8	U
120-82-1	1,2,4-Trichlorobenzene	7.8	U
87-61-6	1,2,3-Trichlorobenzene	7.8	U

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E0AB8

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-13C

Sample wt/vol: 4.20 (g/mL) G Lab File ID: V505175.D

Level: (TRACE or LOW/MED) LOW Date Received: 07/25/2013

% Moisture: not dec. 23 Date Analyzed: 07/31/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

SOM01.2 (6/2007)

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AB9

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638

Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1238-14C

Sample wt/vol: 5.30 (g/mL) G

Lab File ID: V505176.D

Level: (TRACE/LOW/MED) LOW

Date Received: 07/25/2013

% Moisture: not dec. 26

Date Analyzed: 07/31/2013

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	6.4	U
74-87-3	Chloromethane	6.4	U
75-01-4	Vinyl chloride	6.4	U
74-83-9	Bromomethane	6.4	U
75-00-3	Chloroethane	6.4	U
75-69-4	Trichlorofluoromethane	6.4	U
75-35-4	1,1-Dichloroethene	6.4	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	6.4	U
67-64-1	Acetone	13	U
75-15-0	Carbon disulfide	6.4	U
79-20-9	Methyl acetate	6.4	U
75-09-2	Methylene chloride	6.4	U
156-60-5	trans-1,2-Dichloroethene	6.4	U
1634-04-4	Methyl tert-butyl ether	6.4	U
75-34-3	1,1-Dichloroethane	6.4	U
156-59-2	cis-1,2-Dichloroethene	6.4	U
78-93-3	2-Butanone	13	U
74-97-5	Bromochloromethane	6.4	U
67-66-3	Chloroform	6.4	U
71-55-6	1,1,1-Trichloroethane	6.4	U
110-82-7	Cyclohexane	6.4	U
56-23-5	Carbon tetrachloride	6.4	U
71-43-2	Benzene	6.4	U
107-06-2	1,2-Dichloroethane	6.4	U
123-91-1	1,4-Dioxane	130	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

SOM01.2 (6/2007)

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AB9

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM

Case No.: 43638

Mod. Ref No.:

SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1238-14C

Sample wt/vol: 5.30 (g/mL) G

Lab File ID: V505176.D

Level: (TRACE/LOW/MED) LOW

Date Received: 07/25/2013

% Moisture: not dec. 26

Date Analyzed: 07/31/2013

GC Column: DB-624

ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	6.4	U
108-87-2	Methylcyclohexane	6.4	U
78-87-5	1,2-Dichloropropane	6.4	U
75-27-4	Bromodichloromethane	6.4	U
10061-01-5	cis-1,3-Dichloropropene	6.4	U
108-10-1	4-Methyl-2-pentanone	13	U
108-88-3	Toluene	6.4	U
10061-02-6	trans-1,3-Dichloropropene	6.4	U
79-00-5	1,1,2-Trichloroethane	6.4	U
127-18-4	Tetrachloroethene	6.4	U
591-78-6	2-Hexanone	13	U
124-48-1	Dibromochloromethane	6.4	U
106-93-4	1,2-Dibromoethane	6.4	U
108-90-7	Chlorobenzene	6.4	U
100-41-4	Ethylbenzene	6.4	U
179601-23-1	m,p-Xylene	6.4	U
95-47-6	o-Xylene	6.4	U
100-42-5	Styrene	6.4	U
75-25-2	Bromoform	6.4	U
98-82-8	Isopropylbenzene	6.4	U
79-34-5	1,1,2,2-Tetrachloroethane	6.4	U
541-73-1	1,3-Dichlorobenzene	6.4	U
106-46-7	1,4-Dichlorobenzene	6.4	U
95-50-1	1,2-Dichlorobenzene	6.4	U
96-12-8	1,2-Dibromo-3-chloropropane	6.4	U
120-82-1	1,2,4-Trichlorobenzene	6.4	U
87-61-6	1,2,3-Trichlorobenzene	6.4	U

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
E0AB9

Lab Name: MITKEM LABORATORIES
Contract: EP-W-11-033
Lab Code: MITKEM Case No.: 43638
Mod. Ref No.: SDG No.: E0AA5
Matrix: (SOIL/SED/WATER) SOIL
Lab Sample ID: M1238-14C
Sample wt/vol: 5.30 (g/mL) G
Lab File ID: V505176.D
Level: (TRACE or LOW/MED) LOW
Date Received: 07/25/2013
% Moisture: not dec. 26
Date Analyzed: 07/31/2013
GC Column: DB-624 ID: 0.25 (mm)
Dilution Factor: 1.0
Soil Extract Volume: (uL)
Soil Aliquot Volume: (uL)
CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG
Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

SOM01.2 (6/2007)

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AC0

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-15C

Sample wt/vol: 4.10 (g/mL) G Lab File ID: V5O5177.D

Level: (TRACE/LOW/MED) LOW Date Received: 07/25/2013

% Moisture: not dec. 23 Date Analyzed: 08/01/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	7.9	U
74-87-3	Chloromethane	7.9	U
75-01-4	Vinyl chloride	7.9	U
74-83-9	Bromomethane	7.9	U
75-00-3	Chloroethane	7.9	U
75-69-4	Trichlorofluoromethane	7.9	U
75-35-4	1,1-Dichloroethene	7.9	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	7.9	U
67-64-1	Acetone	16	U
75-15-0	Carbon disulfide	7.9	U
79-20-9	Methyl acetate	7.9	U
75-09-2	Methylene chloride	7.9	U
156-60-5	trans-1,2-Dichloroethene	7.9	U
1634-04-4	Methyl tert-butyl ether	7.9	U
75-34-3	1,1-Dichloroethane	7.9	U
156-59-2	cis-1,2-Dichloroethene	7.9	U
78-93-3	2-Butanone	16	U
74-97-5	Bromochloromethane	7.9	U
67-66-3	Chloroform	7.9	U
71-55-6	1,1,1-Trichloroethane	7.9	U
110-82-7	Cyclohexane	7.9	U
56-23-5	Carbon tetrachloride	7.9	U
71-43-2	Benzene	7.9	U
107-06-2	1,2-Dichloroethane	7.9	U
123-91-1	1,4-Dioxane	160	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

SOM01.2 (6/2007)

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AC0

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638

Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1238-15C

Sample wt/vol: 4.10 (g/mL) G

Lab File ID: V505177.D

Level: (TRACE/LOW/MED) LOW

Date Received: 07/25/2013

% Moisture: not dec. 23

Date Analyzed: 08/01/2013

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	7.9	U
108-87-2	Methylcyclohexane	7.9	U
78-87-5	1,2-Dichloropropane	7.9	U
75-27-4	Bromodichloromethane	7.9	U
10061-01-5	cis-1,3-Dichloropropene	7.9	U
108-10-1	4-Methyl-2-pentanone	16	U
108-88-3	Toluene	7.9	U
10061-02-6	trans-1,3-Dichloropropene	7.9	U
79-00-5	1,1,2-Trichloroethane	7.9	U
127-18-4	Tetrachloroethene	7.9	U
591-78-6	2-Hexanone	16	U
124-48-1	Dibromochloromethane	7.9	U
106-93-4	1,2-Dibromoethane	7.9	U
108-90-7	Chlorobenzene	7.9	U
100-41-4	Ethylbenzene	7.9	U
179601-23-1	m,p-Xylene	7.9	U
95-47-6	o-Xylene	7.9	U
100-42-5	Styrene	7.9	U
75-25-2	Bromoform	7.9	U
98-82-8	Isopropylbenzene	7.9	U
79-34-5	1,1,2,2-Tetrachloroethane	7.9	U
541-73-1	1,3-Dichlorobenzene	7.9	U
106-46-7	1,4-Dichlorobenzene	7.9	U
95-50-1	1,2-Dichlorobenzene	7.9	U
96-12-8	1,2-Dibromo-3-chloropropane	7.9	U
120-82-1	1,2,4-Trichlorobenzene	7.9	U
87-61-6	1,2,3-Trichlorobenzene	7.9	U

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E0AC0

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM

Case No.: 43638

Mod. Ref No.:

SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1238-15C

Sample wt/vol: 4.10 (g/mL) G

Lab File ID: V505177.D

Level: (TRACE or LOW/MED) LOW

Date Received: 07/25/2013

% Moisture: not dec. 23

Date Analyzed: 08/01/2013

GC Column: DB-624

ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG

Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

SOM01.2 (6/2007)

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AC1

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638

Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1238-16C

Sample wt/vol: 3.90 (g/mL) G

Lab File ID: V505178.D

Level: (TRACE/LOW/MED) LOW

Date Received: 07/25/2013

% Moisture: not dec. 17

Date Analyzed: 08/01/2013

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	7.7	U
74-87-3	Chloromethane	7.7	U
75-01-4	Vinyl chloride	7.7	U
74-83-9	Bromomethane	7.7	U
75-00-3	Chloroethane	7.7	U
75-69-4	Trichlorofluoromethane	7.7	U
75-35-4	1,1-Dichloroethene	7.7	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	7.7	U
67-64-1	Acetone	15	U
75-15-0	Carbon disulfide	7.7	U
79-20-9	Methyl acetate	7.7	U
75-09-2	Methylene chloride	7.7	U
156-60-5	trans-1,2-Dichloroethene	7.7	U
1634-04-4	Methyl tert-butyl ether	7.7	U
75-34-3	1,1-Dichloroethane	7.7	U
156-59-2	cis-1,2-Dichloroethene	7.7	U
78-93-3	2-Butanone	15	U
74-97-5	Bromochloromethane	7.7	U
67-66-3	Chloroform	7.7	U
71-55-6	1,1,1-Trichloroethane	7.7	U
110-82-7	Cyclohexane	7.7	U
56-23-5	Carbon tetrachloride	7.7	U
71-43-2	Benzene	7.7	U
107-06-2	1,2-Dichloroethane	7.7	U
123-91-1	1,4-Dioxane	150	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

SOM01.2 (6/2007)

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AC1

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638

Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1238-16C

Sample wt/vol: 3.90 (g/mL) G

Lab File ID: V505178.D

Level: (TRACE/LOW/MED) LOW

Date Received: 07/25/2013

% Moisture: not dec. 17

Date Analyzed: 08/01/2013

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	7.7	U
108-87-2	Methylcyclohexane	7.7	U
78-87-5	1,2-Dichloropropane	7.7	U
75-27-4	Bromodichloromethane	7.7	U
10061-01-5	cis-1,3-Dichloropropene	7.7	U
108-10-1	4-Methyl-2-pentanone	15	U
108-88-3	Toluene	7.7	U
10061-02-6	trans-1,3-Dichloropropene	7.7	U
79-00-5	1,1,2-Trichloroethane	7.7	U
127-18-4	Tetrachloroethene	7.7	U
591-78-6	2-Hexanone	15	U
124-48-1	Dibromochloromethane	7.7	U
106-93-4	1,2-Dibromoethane	7.7	U
108-90-7	Chlorobenzene	7.7	U
100-41-4	Ethylbenzene	7.7	U
179601-23-1	m,p-Xylene	7.7	U
95-47-6	o-Xylene	7.7	U
100-42-5	Styrene	7.7	U
75-25-2	Bromoform	7.7	U
98-82-8	Isopropylbenzene	7.7	U
79-34-5	1,1,2,2-Tetrachloroethane	7.7	U
541-73-1	1,3-Dichlorobenzene	7.7	U
106-46-7	1,4-Dichlorobenzene	7.7	U
95-50-1	1,2-Dichlorobenzene	7.7	U
96-12-8	1,2-Dibromo-3-chloropropane	7.7	U
120-82-1	1,2,4-Trichlorobenzene	7.7	U
87-61-6	1,2,3-Trichlorobenzene	7.7	U

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
E0AC1

Lab Name: MITKEM LABORATORIES
Contract: EP-W-11-033
Lab Code: MITKEM Case No.: 43638
Mod. Ref No.: SDG No.: E0AA5
Matrix: (SOIL/SED/WATER) SOIL
Lab Sample ID: M1238-16C
Sample wt/vol: 3.90 (g/mL) G
Lab File ID: V505178.D
Level: (TRACE or LOW/MED) LOW
Date Received: 07/25/2013
% Moisture: not dec. 17
Date Analyzed: 08/01/2013
GC Column: DB-624 ID: 0.25 (mm)
Dilution Factor: 1.0
Soil Extract Volume: (uL)
Soil Aliquot Volume: (uL)
CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG
Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

SOM01.2 (6/2007)

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AC2

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638

Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1238-17C

Sample wt/vol: 4.30 (g/mL) G

Lab File ID: V505107.D

Level: (TRACE/LOW/MED) LOW

Date Received: 07/25/2013

% Moisture: not dec. 17

Date Analyzed: 07/29/2013

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	7.0	U
74-87-3	Chloromethane	7.0	U
75-01-4	Vinyl chloride	7.0	U
74-83-9	Bromomethane	7.0	U
75-00-3	Chloroethane	7.0	U
75-69-4	Trichlorofluoromethane	7.0	U
75-35-4	1,1-Dichloroethene	7.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	7.0	U
67-64-1	Acetone	14	U
75-15-0	Carbon disulfide	7.0	U
79-20-9	Methyl acetate	7.0	U
75-09-2	Methylene chloride	14 ~~3.8~~	~~BU~~ U
156-60-5	trans-1,2-Dichloroethene	7.0	U
1634-04-4	Methyl tert-butyl ether	7.0	U
75-34-3	1,1-Dichloroethane	7.0	U
156-59-2	cis-1,2-Dichloroethene	7.0	U
78-93-3	2-Butanone	14	U
74-97-5	Bromochloromethane	7.0	U
67-66-3	Chloroform	7.0	U
71-55-6	1,1,1-Trichloroethane	7.0	U
110-82-7	Cyclohexane	7.0	U
56-23-5	Carbon tetrachloride	7.0	U
71-43-2	Benzene	7.0	U
107-06-2	1,2-Dichloroethane	7.0	U
123-91-1	1,4-Dioxane	140	U

8/13/13

Report 1,4-Dioxane for Low-Medium VOA analysis only

SOM01.2 (6/2007)

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AC2

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM

Case No.: 43638

Mod. Ref No.:

SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1238-17C

Sample wt/vol: 4.30 (g/mL) G

Lab File ID: V505107.D

Level: (TRACE/LOW/MED) LOW

Date Received: 07/25/2013

% Moisture: not dec. 17

Date Analyzed: 07/29/2013

GC Column: DB-624

ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	7.0	U
108-87-2	Methylcyclohexane	7.0	U
78-87-5	1,2-Dichloropropane	7.0	U
75-27-4	Bromodichloromethane	7.0	U
10061-01-5	cis-1,3-Dichloropropene	7.0	U
108-10-1	4-Methyl-2-pentanone	14	U
108-88-3	Toluene	7.0	U
10061-02-6	trans-1,3-Dichloropropene	7.0	U
79-00-5	1,1,2-Trichloroethane	7.0	U
127-18-4	Tetrachloroethene	7.0	U
591-78-6	2-Hexanone	14	U
124-48-1	Dibromochloromethane	7.0	U
106-93-4	1,2-Dibromoethane	7.0	U
108-90-7	Chlorobenzene	7.0	U
100-41-4	Ethylbenzene	7.0	U
179601-23-1	m,p-Xylene	7.0	U
95-47-6	o-Xylene	7.0	U
100-42-5	Styrene	7.0	U
75-25-2	Bromoform	7.0	U
98-82-8	Isopropylbenzene	7.0	U
79-34-5	1,1,2,2-Tetrachloroethane	7.0	U
541-73-1	1,3-Dichlorobenzene	7.0	U
106-46-7	1,4-Dichlorobenzene	7.0	U
95-50-1	1,2-Dichlorobenzene	7.0	U
96-12-8	1,2-Dibromo-3-chloropropane	7.0	U
120-82-1	1,2,4-Trichlorobenzene	7.0	U
87-61-6	1,2,3-Trichlorobenzene	7.0	U

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
E0AC2

Lab Name: MITKEM LABORATORIES
Contract: EP-W-11-033
Lab Code: MITKEM
Case No.: 43638
Mod. Ref No.:
SDG No.: E0AA5
Matrix: (SOIL/SED/WATER) SOIL
Lab Sample ID: M1238-17C
Sample wt/vol: 4.30 (g/mL) G
Lab File ID: V505107.D
Level: (TRACE or LOW/MED) LOW
Date Received: 07/25/2013
% Moisture: not dec. 17
Date Analyzed: 07/29/2013
GC Column: DB-624
ID: 0.25 (mm)
Dilution Factor: 1.0
Soil Extract Volume: (uL)
Soil Aliquot Volume: (uL)
CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG
Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AC3

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638

Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1238-18C

Sample wt/vol: 5.20 (g/mL) G

Lab File ID: V505108.D

Level: (TRACE/LOW/MED) LOW

Date Received: 07/26/2013

% Moisture: not dec. 22

Date Analyzed: 07/29/2013

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	6.2	U
74-87-3	Chloromethane	6.2	U
75-01-4	Vinyl chloride	6.2	U
74-83-9	Bromomethane	6.2	U
75-00-3	Chloroethane	6.2	U
75-69-4	Trichlorofluoromethane	6.2	U
75-35-4	1,1-Dichloroethene	6.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	6.2	U
67-64-1	Acetone	12	U
75-15-0	Carbon disulfide	6.2	U
79-20-9	Methyl acetate	6.2	U
75-09-2	Methylene chloride	6.2	U
156-60-5	trans-1,2-Dichloroethene	6.2	U
1634-04-4	Methyl tert-butyl ether	6.2	U
75-34-3	1,1-Dichloroethane	6.2	U
156-59-2	cis-1,2-Dichloroethene	6.2	U
78-93-3	2-Butanone	12	U
74-97-5	Bromochloromethane	6.2	U
67-66-3	Chloroform	6.2	U
71-55-6	1,1,1-Trichloroethane	6.2	U
110-82-7	Cyclohexane	6.2	U
56-23-5	Carbon tetrachloride	6.2	U
71-43-2	Benzene	6.2	U
107-06-2	1,2-Dichloroethane	6.2	U
123-91-1	1,4-Dioxane	120	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

SOM01.2 (6/2007)

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AC3

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638

Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1238-18C

Sample wt/vol: 5.20 (g/mL) G

Lab File ID: V505108.D

Level: (TRACE/LOW/MED) LOW

Date Received: 07/26/2013

% Moisture: not dec. 22

Date Analyzed: 07/29/2013

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	6.2	U
108-87-2	Methylcyclohexane	6.2	U
78-87-5	1,2-Dichloropropane	6.2	U
75-27-4	Bromodichloromethane	6.2	U
10061-01-5	cis-1,3-Dichloropropene	6.2	U
108-10-1	4-Methyl-2-pentanone	12	U
108-88-3	Toluene	6.2	U
10061-02-6	trans-1,3-Dichloropropene	6.2	U
79-00-5	1,1,2-Trichloroethane	6.2	U
127-18-4	Tetrachloroethene	6.2	U
591-78-6	2-Hexanone	12	U
124-48-1	Dibromochloromethane	6.2	U
106-93-4	1,2-Dibromoethane	6.2	U
108-90-7	Chlorobenzene	6.2	U
100-41-4	Ethylbenzene	6.2	U
179601-23-1	m,p-Xylene	6.2	U
95-47-6	o-Xylene	6.2	U
100-42-5	Styrene	6.2	U
75-25-2	Bromoform	6.2	U
98-82-8	Isopropylbenzene	6.2	U
79-34-5	1,1,2,2-Tetrachloroethane	6.2	U
541-73-1	1,3-Dichlorobenzene	6.2	U
106-46-7	1,4-Dichlorobenzene	6.2	U
95-50-1	1,2-Dichlorobenzene	6.2	U
96-12-8	1,2-Dibromo-3-chloropropane	6.2	U
120-82-1	1,2,4-Trichlorobenzene	6.2	U
87-61-6	1,2,3-Trichlorobenzene	6.2	U

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
E0AC3

Lab Name: MITKEM LABORATORIES
Contract: EP-W-11-033
Lab Code: MITKEM
Case No.: 43638
Mod. Ref No.:
SDG No.: E0AA5
Matrix: (SOIL/SED/WATER) SOIL
Lab Sample ID: M1238-18C
Sample wt/vol: 5.20 (g/mL) G
Lab File ID: V505108.D
Level: (TRACE or LOW/MED) LOW
Date Received: 07/26/2013
% Moisture: not dec. 22
Date Analyzed: 07/29/2013
GC Column: DB-624
ID: 0.25 (mm)
Dilution Factor: 1.0
Soil Extract Volume: (uL)
Soil Aliquot Volume: (uL)
CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG
Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

SOM01.2 (6/2007)

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AC4

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638

Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1238-19C

Sample wt/vol: 5.20 (g/mL) G

Lab File ID: V505109.D

Level: (TRACE/LOW/MED) LOW

Date Received: 07/26/2013

% Moisture: not dec. 23

Date Analyzed: 07/29/2013

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	6.3	U
74-87-3	Chloromethane	6.3	U
75-01-4	Vinyl chloride	6.3	U
74-83-9	Bromomethane	6.3	U
75-00-3	Chloroethane	6.3	U
75-69-4	Trichlorofluoromethane	6.3	U
75-35-4	1,1-Dichloroethene	6.3	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	6.3	U
67-64-1	Acetone	13	U
75-15-0	Carbon disulfide	6.3	U
79-20-9	Methyl acetate	6.3	U
75-09-2	Methylene chloride	6.3	U
156-60-5	trans-1,2-Dichloroethene	6.3	U
1634-04-4	Methyl tert-butyl ether	6.3	U
75-34-3	1,1-Dichloroethane	6.3	U
156-59-2	cis-1,2-Dichloroethene	6.3	U
78-93-3	2-Butanone	13	U
74-97-5	Bromochloromethane	6.3	U
67-66-3	Chloroform	6.3	U
71-55-6	1,1,1-Trichloroethane	6.3	U
110-82-7	Cyclohexane	6.3	U
56-23-5	Carbon tetrachloride	6.3	U
71-43-2	Benzene	6.3	U
107-06-2	1,2-Dichloroethane	6.3	U
123-91-1	1,4-Dioxane	130	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AC4

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM

Case No.: 43638

Mod. Ref No.:

SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1238-19C

Sample wt/vol: 5.20 (g/mL) G

Lab File ID: V505109.D

Level: (TRACE/LOW/MED) LOW

Date Received: 07/26/2013

% Moisture: not dec. 23

Date Analyzed: 07/29/2013

GC Column: DB-624

ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	6.3	U
108-87-2	Methylcyclohexane	6.3	U
78-87-5	1,2-Dichloropropane	6.3	U
75-27-4	Bromodichloromethane	6.3	U
10061-01-5	cis-1,3-Dichloropropene	6.3	U
108-10-1	4-Methyl-2-pentanone	13	U
108-88-3	Toluene	6.3	U
10061-02-6	trans-1,3-Dichloropropene	6.3	U
79-00-5	1,1,2-Trichloroethane	6.3	U
127-18-4	Tetrachloroethene	6.3	U
591-78-6	2-Hexanone	13	U
124-48-1	Dibromochloromethane	6.3	U
106-93-4	1,2-Dibromoethane	6.3	U
108-90-7	Chlorobenzene	6.3	U
100-41-4	Ethylbenzene	6.3	U
179601-23-1	m,p-Xylene	6.3	U
95-47-6	o-Xylene	6.3	U
100-42-5	Styrene	6.3	U
75-25-2	Bromoform	6.3	U
98-82-8	Isopropylbenzene	6.3	U
79-34-5	1,1,2,2-Tetrachloroethane	6.3	U
541-73-1	1,3-Dichlorobenzene	6.3	U
106-46-7	1,4-Dichlorobenzene	6.3	U
95-50-1	1,2-Dichlorobenzene	6.3	U
96-12-8	1,2-Dibromo-3-chloropropane	6.3	U
120-82-1	1,2,4-Trichlorobenzene	6.3	U
87-61-6	1,2,3-Trichlorobenzene	6.3	U

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
E0AC4

Lab Name: MITKEM LABORATORIES
Contract: EP-W-11-033
Lab Code: MITKEM Case No.: 43638
Mod. Ref No.: SDG No.: E0AA5
Matrix: (SOIL/SED/WATER) SOIL
Lab Sample ID: M1238-19C
Sample wt/vol: 5.20 (g/mL) G
Lab File ID: V505109.D
Level: (TRACE or LOW/MED) LOW
Date Received: 07/26/2013
% Moisture: not dec. 23
Date Analyzed: 07/29/2013
GC Column: DB-624 ID: 0.25 (mm)
Dilution Factor: 1.0
Soil Extract Volume: (uL)
Soil Aliquot Volume: (uL)
CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG
Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AC5

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638

Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1238-20C

Sample wt/vol: 4.60 (g/mL) G

Lab File ID: V505110.D

Level: (TRACE/LOW/MED) LOW

Date Received: 07/26/2013

% Moisture: not dec. 17

Date Analyzed: 07/29/2013

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	6.5	U
74-87-3	Chloromethane	6.5	U
75-01-4	Vinyl chloride	6.5	U
74-83-9	Bromomethane	6.5	U
75-00-3	Chloroethane	6.5	U
75-69-4	Trichlorofluoromethane	6.5	U
75-35-4	1,1-Dichloroethene	6.5	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	13	U
67-64-1	Acetone	6.5	U
75-15-0	Carbon disulfide	6.5	U
79-20-9	Methyl acetate	6.5	U
75-09-2	Methylene chloride	6.5	U
156-60-5	trans-1,2-Dichloroethene	6.5	U
1634-04-4	Methyl tert-butyl ether	6.5	U
75-34-3	1,1-Dichloroethane	6.5	U
156-59-2	cis-1,2-Dichloroethene	13	U
78-93-3	2-Butanone	6.5	U
74-97-5	Bromochloromethane	6.5	U
67-66-3	Chloroform	6.5	U
71-55-6	1,1,1-Trichloroethane	6.5	U
110-82-7	Cyclohexane	6.5	U
56-23-5	Carbon tetrachloride	6.5	U
71-43-2	Benzene	6.5	U
107-06-2	1,2-Dichloroethane	130	U
123-91-1	1,4-Dioxane		

Report 1,4-Dioxane for Low-Medium VOA analysis only

SOM01.2 (6/2007)

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AC5

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638

Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1238-20C

Sample wt/vol: 4.60 (g/mL) G

Lab File ID: V505110.D

Level: (TRACE/LOW/MED) LOW

Date Received: 07/26/2013

% Moisture: not dec. 17

Date Analyzed: 07/29/2013

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	6.5	U
108-87-2	Methylcyclohexane	6.5	U
78-87-5	1,2-Dichloropropane	6.5	U
75-27-4	Bromodichloromethane	6.5	U
10061-01-5	cis-1,3-Dichloropropene	6.5	U
108-10-1	4-Methyl-2-pentanone	13	U
108-88-3	Toluene	6.5	U
10061-02-6	trans-1,3-Dichloropropene	6.5	U
79-00-5	1,1,2-Trichloroethane	6.5	U
127-18-4	Tetrachloroethene	6.5	U
591-78-6	2-Hexanone	13	U
124-48-1	Dibromochloromethane	6.5	U
106-93-4	1,2-Dibromoethane	6.5	U
108-90-7	Chlorobenzene	6.5	U
100-41-4	Ethylbenzene	6.5	U
179601-23-1	m,p-Xylene	6.5	U
95-47-6	o-Xylene	6.5	U
100-42-5	Styrene	6.5	U
75-25-2	Bromoform	6.5	U
98-82-8	Isopropylbenzene	6.5	U
79-34-5	1,1,2,2-Tetrachloroethane	6.5	U
541-73-1	1,3-Dichlorobenzene	6.5	U
106-46-7	1,4-Dichlorobenzene	6.5	U
95-50-1	1,2-Dichlorobenzene	6.5	U
96-12-8	1,2-Dibromo-3-chloropropane	6.5	U
120-82-1	1,2,4-Trichlorobenzene	6.5	U
87-61-6	1,2,3-Trichlorobenzene	6.5	U

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
E0AC5

Lab Name: MITKEM LABORATORIES
Contract: EP-W-11-033
Lab Code: MITKEM
Case No.: 43638
Mod. Ref No.:
SDG No.: E0AA5
Matrix: (SOIL/SED/WATER) SOIL
Lab Sample ID: M1238-20C
Sample wt/vol: 4.60 (g/mL) G
Lab File ID: V505110.D
Level: (TRACE or LOW/MED) LOW
Date Received: 07/26/2013
% Moisture: not dec. 17
Date Analyzed: 07/29/2013
GC Column: DB-624
ID: 0.25 (mm)
Dilution Factor: 1.0
Soil Extract Volume: (uL)
Soil Aliquot Volume: (uL)
CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG
Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

SOM01.2 (6/2007)

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKT5

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638

Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: MB-72900

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: V505102.D

Level: (TRACE/LOW/MED) LOW

Date Received:

% Moisture: not dec.

Date Analyzed: 07/29/2013

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	5.0	U
74-87-3	Chloromethane	5.0	U
75-01-4	Vinyl chloride	5.0	U
74-83-9	Bromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	10	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	5.0	U
79-20-9	Methyl acetate	2.2	J
75-09-2	Methylene chloride	5.0	U
156-60-5	trans-1,2-Dichloroethene	5.0	U
1634-04-4	Methyl tert-butyl ether	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	5.0	U
67-66-3	Chloroform	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
110-82-7	Cyclohexane	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
71-43-2	Benzene	5.0	U
107-06-2	1,2-Dichloroethane	100	U
123-91-1	1,4-Dioxane		

Report 1,4-Dioxane for Low-Medium VOA analysis only

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKT5

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638

Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: MB-72900

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: V505102.D

Level: (TRACE/LOW/MED) LOW

Date Received:

% Moisture: not dec.

Date Analyzed: 07/29/2013

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	5.0	U
108-87-2	Methylcyclohexane	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
179601-23-1	m,p-Xylene	5.0	U
95-47-6	o-Xylene	5.0	U
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
98-82-8	Isopropylbenzene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
VBLKT5

Lab Name: MITKEM LABORATORIES
Contract: EP-W-11-033
Lab Code: MITKEM Case No.: 43638
Mod. Ref No.: SDG No.: E0AA5
Matrix: (SOIL/SED/WATER) SOIL
Lab Sample ID: MB-72900
Sample wt/vol: 5.00 (g/mL) G
Lab File ID: V505102.D
Level: (TRACE or LOW/MED) LOW
Date Received:
% Moisture: not dec.
Date Analyzed: 07/29/2013
GC Column: DB-624 ID: 0.25 (mm)
Dilution Factor: 1.0
Soil Extract Volume: (uL)
Soil Aliquot Volume: (uL)
CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG
Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

SOM01.2 (6/2007)

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKX5

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638

Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: MB-72990

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: V505162.D

Level: (TRACE/LOW/MED) LOW

Date Received:

% Moisture: not dec.

Date Analyzed: 07/31/2013

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	5.0	U
74-87-3	Chloromethane	5.0	U
75-01-4	Vinyl chloride	5.0	U
74-83-9	Bromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	10	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	5.0	U
79-20-9	Methyl acetate	5.0	U
75-09-2	Methylene chloride	5.0	U
156-60-5	trans-1,2-Dichloroethene	5.0	U
1634-04-4	Methyl tert-butyl ether	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	5.0	U
67-66-3	Chloroform	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
110-82-7	Cyclohexane	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
71-43-2	Benzene	5.0	U
107-06-2	1,2-Dichloroethane	100	U
123-91-1	1,4-Dioxane		

Report 1,4-Dioxane for Low-Medium VOA analysis only

SOM01.2 (6/2007)

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKX5

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638

Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: MB-72990

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: V505162.D

Level: (TRACE/LOW/MED) LOW

Date Received:

% Moisture: not dec.

Date Analyzed: 07/31/2013

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	5.0	U
108-87-2	Methylcyclohexane	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
179601-23-1	m,p-Xylene	5.0	U
95-47-6	o-Xylene	5.0	U
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
98-82-8	Isopropylbenzene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
VBLKX5

Lab Name: MITKEM LABORATORIES
Contract: EP-W-11-033
Lab Code: MITKEM
Case No.: 43638
Mod. Ref No.:
SDG No.: E0AA5
Matrix: (SOIL/SED/WATER) SOIL
Lab Sample ID: MB-72990
Sample wt/vol: 5.00 (g/mL) G
Lab File ID: V505162.D
Level: (TRACE or LOW/MED) LOW
Date Received:
% Moisture: not dec.
Date Analyzed: 07/31/2013
GC Column: DB-624
ID: 0.25 (mm)
Dilution Factor: 1.0
Soil Extract Volume: (uL)
Soil Aliquot Volume: (uL)
CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG
Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

SOM01.2 (6/2007)

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VHBLKX5

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: VHBLKX5

Sample wt/vol: 10.0 (g/mL) G Lab File ID: V505179.D

Level: (TRACE/LOW/MED) LOW Date Received:

% Moisture: not dec. Date Analyzed: 08/01/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	5.0	U
74-87-3	Chloromethane	5.0	U
75-01-4	Vinyl chloride	5.0	U
74-83-9	Bromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U
67-64-1	Acetone	10	U
75-15-0	Carbon disulfide	5.0	U
79-20-9	Methyl acetate	5.0	U
75-09-2	Methylene chloride	5.0	U
156-60-5	trans-1,2-Dichloroethene	5.0	U
1634-04-4	Methyl tert-butyl ether	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	U
78-93-3	2-Butanone	10	U
74-97-5	Bromochloromethane	5.0	U
67-66-3	Chloroform	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
110-82-7	Cyclohexane	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
71-43-2	Benzene	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
123-91-1	1,4-Dioxane	100	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VHBLKX5

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM

Case No.: 43638

Mod. Ref No.:

SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: VHBLKX5

Sample wt/vol: 10.0 (g/mL) G

Lab File ID: V505179.D

Level: (TRACE/LOW/MED) LOW

Date Received:

% Moisture: not dec.

Date Analyzed: 08/01/2013

GC Column: DB-624

ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	5.0	U
108-87-2	Methylcyclohexane	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
179601-23-1	m,p-Xylene	5.0	U
95-47-6	o-Xylene	5.0	U
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
98-82-8	Isopropylbenzene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
VHBLKX5

Lab Name: MITKEM LABORATORIES
Contract: EP-W-11-033
Lab Code: MITKEM
Case No.: 43638
Mod. Ref No.:
SDG No.: E0AA5
Matrix: (SOIL/SED/WATER) SOIL
Lab Sample ID: VHBLKX5
Sample wt/vol: 10.0 (g/mL) G
Lab File ID: V505179.D
Level: (TRACE or LOW/MED) LOW
Date Received:
% Moisture: not dec.
Date Analyzed: 08/01/2013
GC Column: DB-624
ID: 0.25 (mm)
Dilution Factor: 1.0
Soil Extract Volume: (uL)
Soil Aliquot Volume: (uL)
CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG
Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

SOM01.2 (6/2007)

2J - FORM II SV-3

SOIL SEMIVOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Level: (LOW/MED) LOW

	EPA SAMPLE NO.	SDMC1 (PHL) #	SDMC2 (BCE) #	SDMC3 (2CP) #	SDMC4 (4MP) #	SDMC5 (NBZ) #	SDMC6 (2NP) #	SDMC7 (DCP) #	SDMC8 (4CA) #
01	SBLK4R	75	75	76	72	84	77	79	43
02	E0AA5	63	64	64	61	60	61	58	25
03	E0AA6	52	42	45	49	44	48	47	24
04	E0AA8	49	45	47	50	48	49	51	22
05	E0AA9	54	53	54	51	52	53	49	24
06	E0AB0	46	46	48	48	49	49	43	24
07	E0AB1	48	46	45	48	48	53	53	22
08	E0AB2	51	51	51	50	51	47	49	34
09	E0AB2MS	56	56	57	57	55	53	53	36
10	E0AB2MSD	48	47	50	48	48	50	48	33
11	E0AB3	47	45	46	44	44	43	43	12
12	E0AB4	50	52	51	54	54	51	48	22
13	E0AB5	49	49	49	50	48	51	46	16
14	E0AB6	52	52	55	53	57	56	56	22
15	E0AB7	57	52	54	55	54	52	54	15
16	E0AB8	54	51	53	49	51	46	49	23
17	E0AB9	47	52	50	49	46	47	47	17
18	E0AC0	50	48	48	46	48	50	47	16
19	E0AC1	49	56	53	45	53	50	49	12
20	E0AC2	48	50	52	46	55	48	47	20
21	E0AC3	57	56	51	47	55	57	53	14
22	E0AC4	53	56	54	44	54	55	49	23
23	E0AC5	70	68	69	64	65	62	58	27

			QC LIMITS
SDMC1	(PHL)	= Phenol-d5	(17-103)
SDMC2	(BCE)	= Bis(2-chloroethyl)ether-d8	(12-98)
SDMC3	(2CP)	= 2-Chlorophenol-d4	(13-101)
SDMC4	(4MP)	= 4-Methylphenol-d8	(8-100)
SDMC5	(NBZ)	= Nitrobenzene-d5	(16-103)
SDMC6	(2NP)	= 2-Nitrophenol-d4	(16-104)
SDMC7	(DCP)	= 2,4-Dichlorophenol-d3	(23-104)
SDMC8	(4CA)	= 4-Chloroaniline-d4	(1-145)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D DMC diluted out

2K - FORM II SV-4

SOIL SEMIVOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Level: (LOW/MED) LOW

	EPA SAMPLE NO.	SDMC9 (DMP) #	SDMC10 (ACY) #	SDMC11 (4NP) #	SDMC12 (FLR) #	SDMC13 (NMP) #	SDMC14 (ANC) #	SDMC15 (PYR) #	SDMC16 (BAP) #	TOT OUT
01	SBLK4R	85	81	91	82	67	79	69	75	0
02	E0AA5	66	62	68	67	53	63	60	63	0
03	E0AA6	56	53	63	55	40	52	50 *	52	1
04	E0AA8	57	51	64	57	41	53	48 *	52	1
05	E0AA9	58	55	54	56	47	53	55	56	0
06	E0AB0	56	51	53	54	36	48	52	49	0
07	E0AB1	56	52	61	57	41	55	50 *	56	1
08	E0AB2	55	52	55	56	39	53	52	54	0
09	E0AB2MS	62	57	62	60	45	54	56	60	0
10	E0AB2MSD	55	51	52	53	35	49	50 *	51	1
11	E0AB3	52	49	52	52	37	52	47 *	49	1
12	E0AB4	61	55	59	56	40	54	53	54	0
13	E0AB5	55	52	58	54	40	51	51 *	51	1
14	E0AB6	62	59	58	61	46	57	54	57	0
15	E0AB7	64	57	69	60	49	58	58	57	0
16	E0AB8	56	52	55	54	39	52	49 *	54	1
17	E0AB9	54	51	52	52	44	52	48 *	48	1
18	E0AC0	51	48	54	49	40	51	50 *	50	1
19	E0AC1	60	54	58	59	40	51	52	55	0
20	E0AC2	60	53	64	58	49	59	52	61	0
21	E0AC3	59	55	56	57	42	57	55	57	0
22	E0AC4	55	55	53	54	43	56	51 *	58	1
23	E0AC5	67	63	69	68	48	59	56	62	0

			QC LIMITS
SDMC9	(DMP)	= Dimethylphthalate-d6	(43-111)
SDMC10	(ACY)	= Acenaphthylene-d8	(20-97)
SDMC11	(4NP)	= 4-Nitrophenol-d4	(16-166)
SDMC12	(FLR)	= Fluorene-d10	(40-108)
SDMC13	(NMP)	= 4,6-Dinitro-2-methylphenol-d2	(1-121)
SDMC14	(ANC)	= Anthracene-d10	(22-98)
SDMC15	(PYR)	= Pyrene-d10	(51-120)
SDMC16	(BAP)	= Benzo(a)pyrene-d12	(43-111)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D DMC diluted out

3D - FORM III SV-2

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix Spike - EPA Sample No.: E0AB2

COMPOUND	SPIKE ADDED (µg/Kg)	SAMPLE CONCENTRATION (µg/Kg)	MS CONCENTRATION (µg/Kg)	MS %REC	#	QC. LIMITS REC.
Phenol	1329.0374	0.0000	720.3012	54		26-90
2-Chlorophenol	1329.0374	0.0000	684.6087	52		25-102
N-Nitroso-di-n-propylamine	1329.0374	0.0000	635.7415	48		41-126
4-Chloro-3-methylphenol	1329.0374	0.0000	708.3995	53		26-103
Acenaphthene	1329.0374	0.0000	656.3980	49		31-137
4-Nitrophenol	1329.0374	0.0000	803.7742	60		11-114
2,4-Dinitrotoluene	1329.0374	0.0000	708.9638	53		28-89
Pentachlorophenol	1329.0374	0.0000	841.7227	63		17-109
Pyrene	1329.0374	0.0000	437.3352	33	*	35-142

COMPOUND	SPIKE ADDED (µg/Kg)	MSD CONCENTRATION (µg/Kg)	MSD %REC	#	%RPD	#	QC LIMITS RPD	QC LIMITS REC.
Phenol	1346.5825	617.5871	46		17		0-35	26-90
2-Chlorophenol	1346.5825	607.6340	45		13		0-50	25-102
N-Nitroso-di-n-propylamine	1346.5825	541.2314	40	*	17		0-38	41-126
4-Chloro-3-methylphenol	1346.5825	635.1056	47		12		0-33	26-103
Acenaphthene	1346.5825	576.5411	43		14		0-19	31-137
4-Nitrophenol	1346.5825	635.8833	47		25		0-50	11-114
2,4-Dinitrotoluene	1346.5825	650.6446	48		10		0-47	28-89
Pentachlorophenol	1346.5825	857.0288	64		0		0-47	17-109
Pyrene	1346.5825	390.9480	29	*	13		0-36	35-142

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 9 outside limits

Spike Recovery: 3 out of 18 outside limits

COMMENTS:

SOM01.2 (6/2007)

4C - FORM IV SV
SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.
SBLK4R

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Lab File ID: S4F4610.D Lab Sample ID: MB-73021

Instrument ID: S4 Date Extracted: 08/02/2013

Matrix: (SOIL/SED/WATER) SOIL Date Analyzed: 08/03/2013

Level: (LOW/MED) LOW Time Analyzed: 17:33

Extraction: (Type) SONC GPC Cleanup: (Y/N) Y

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	E0AA5	M1238-01B	S4F4611.D	08/03/2013
02	E0AA6	M1238-02B	S4F4612.D	08/03/2013
03	E0AA8	M1238-03B	S4F4613.D	08/03/2013
04	E0AA9	M1238-04B	S4F4614.D	08/03/2013
05	E0AB0	M1238-05B	S4F4615.D	08/03/2013
06	E0AB1	M1238-06B	S4F4616.D	08/03/2013
07	E0AB2	M1238-07B	S4F4617.D	08/03/2013
08	E0AB2MS	M1238-07BMS	S4F4618.D	08/03/2013
09	E0AB2MSD	M1238-07BMSD	S4F4619.D	08/03/2013
10	E0AB3	M1238-08B	S4F4620.D	08/03/2013
11	E0AB4	M1238-09B	S4F4621.D	08/03/2013
12	E0AB5	M1238-10B	S4F4622.D	08/03/2013
13	E0AB6	M1238-11B	S4F4623.D	08/03/2013
14	E0AB7	M1238-12B	S4F4624.D	08/03/2013
15	E0AB8	M1238-13B	S4F4625.D	08/03/2013
16	E0AB9	M1238-14B	S4F4626.D	08/04/2013
17	E0AC0	M1238-15B	S4F4627.D	08/04/2013
18	E0AC1	M1238-16B	S4F4628.D	08/04/2013
19	E0AC2	M1238-17B	S4F4629.D	08/04/2013
20	E0AC3	M1238-18B	S4F4630.D	08/04/2013
21	E0AC4	M1238-19B	S4F4631.D	08/04/2013
22	E0AC5	M1238-20B	S4F4632.D	08/04/2013

COMMENTS:

8C - FORM VIII SV-1

SEMIVOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

GC Column: Rxi-5sil MS ID: 0.25 (mm) Init. Calib. Date(s): 07/25/2013 07/25/2013

EPA Sample No.(SSTD020##) SSTD0204S Date Analyzed: 08/03/2013

Lab File ID (Standard): S4F4609.D Time Analyzed: 16:19

Instrument ID: S4

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	32850	3.53	113661	4.824	62331	6.863
	UPPER LIMIT	65700	4.03	227322	5.324	124662	7.363
	LOWER LIMIT	16425	3.03	56831	4.324	31166	6.363
	EPA SAMPLE NO.						
01	SBLK4R	26090	3.530	87780	4.814	47526	6.863
02	E0AA5	28508	3.530	106415	4.824	56164	6.863
03	E0AA6	26104	3.530	93130	4.814	49122	6.863
04	E0AA8	27439	3.530	103428	4.814	57043	6.863
05	E0AA9	29895	3.530	107619	4.824	57873	6.863
06	E0AB0	28443	3.530	102079	4.824	52842	6.863
07	E0AB1	29467	3.530	100976	4.824	55454	6.863
08	E0AB2	29598	3.530	106245	4.824	56948	6.863
09	E0AB2MS	28989	3.530	106772	4.824	54088	6.863
10	E0AB2MSD	31271	3.530	110610	4.824	57928	6.863
11	E0AB3	28865	3.530	105672	4.824	55587	6.863
12	E0AB4	29078	3.530	108265	4.824	54757	6.863
13	E0AB5	34255	3.530	127760	4.824	65198	6.863
14	E0AB6	30840	3.530	107765	4.824	57153	6.863
15	E0AB7	31502	3.530	115262	4.824	58970	6.863

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = 200% of internal standard area

AREA LOWER LIMIT = 50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.

8D - FORM VIII SV-2

SEMIVOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

EPA Sample No.(SSTD020##) SSTD0204S Date Analyzed: 08/03/2013

Lab File ID (Standard): S4F4609.D Time Analyzed: 16:19

Instrument ID: S4 GC Column: Rxi-5sil MS ID: 0.25 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	103529	8.654	97050	11.852	99432	13.601
	UPPER LIMIT	207058	9.154	194100	12.352	198864	14.101
	LOWER LIMIT	51765	8.154	48525	11.352	49716	13.101
	EPA SAMPLE NO.						
01	SBLK4R	87536	8.654	90672	11.852	93679	13.601
02	E0AA5	95827	8.654	91289	11.852	80605	13.601
03	E0AA6	87517	8.654	86854	11.852	92011	13.601
04	E0AA8	96376	8.654	97000	11.852	96505	13.601
05	E0AA9	94217	8.654	83875	11.852	82818	13.601
06	E0AB0	93645	8.654	79631	11.852	88211	13.601
07	E0AB1	89943	8.654	90085	11.852	82553	13.601
08	E0AB2	94977	8.654	88467	11.852	91146	13.601
09	E0AB2MS	96236	8.654	87190	11.852	88073	13.601
10	E0AB2MSD	98735	8.654	94044	11.852	95425	13.601
11	E0AB3	93967	8.654	88302	11.852	93095	13.601
12	E0AB4	93813	8.654	86165	11.852	89877	13.601
13	E0AB5	108998	8.654	99585	11.852	101061	13.601
14	E0AB6	100074	8.654	93837	11.852	91417	13.601
15	E0AB7	102605	8.654	95698	11.852	99579	13.601

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = 200% of internal standard area

AREA LOWER LIMIT = 50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.

8C - FORM VIII SV-1

SEMIVOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

GC Column: Rxi-5sil MS ID: 0.25 (mm) Init. Calib. Date(s): 07/25/2013 07/25/2013

EPA Sample No.(SSTD020##) SSTD0204S Date Analyzed: 08/03/2013

Lab File ID (Standard): S4F4609.D Time Analyzed: 16:19

Instrument ID: S4

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	32850	3.53	113661	4.824	62331	6.863
	UPPER LIMIT	65700	4.03	227322	5.324	124662	7.363
	LOWER LIMIT	16425	3.03	56831	4.324	31166	6.363
	EPA SAMPLE NO.						
16	E0AB8	26339	3.530	98112	4.824	51982	6.863
17	E0AB9	27070	3.530	100338	4.824	50992	6.863
18	E0AC0	28588	3.530	104459	4.824	57517	6.863
19	E0AC1	27461	3.530	103458	4.824	52371	6.863
20	E0AC2	28551	3.530	102536	4.824	53140	6.863
21	E0AC3	29863	3.530	102135	4.824	53876	6.863
22	E0AC4	30052	3.530	107553	4.824	58701	6.863
23	E0AC5	21656	3.530	85743	4.824	47530	6.863

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = 200% of internal standard area

AREA LOWER LIMIT = 50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.

8D - FORM VIII SV-2

SEMIVOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

EPA Sample No.(SSTD020##) SSTD0204S Date Analyzed: 08/03/2013

Lab File ID (Standard): S4F4609.D Time Analyzed: 16:19

Instrument ID: S4 GC Column: Rxi-5sil MS ID: 0.25 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	103529	8.654	97050	11.852	99432	13.601
	UPPER LIMIT	207058	9.154	194100	12.352	198864	14.101
	LOWER LIMIT	51765	8.154	48525	11.352	49716	13.101
	EPA SAMPLE NO.						
16	E0AB8	89550	8.654	86533	11.852	81978	13.601
17	E0AB9	86312	8.654	81791	11.852	87471	13.601
18	E0AC0	92370	8.654	83812	11.852	85981	13.601
19	E0AC1	96287	8.654	88704	11.852	90173	13.601
20	E0AC2	86913	8.654	86176	11.852	86796	13.601
21	E0AC3	89063	8.654	86105	11.852	86620	13.601
22	E0AC4	91500	8.654	91871	11.852	87996	13.601
23	E0AC5	89275	8.654	89920	11.852	98367	13.601

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = 200% of internal standard area

AREA LOWER LIMIT = 50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AA5

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM

Case No.: 43638

Mod. Ref No.:

SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1238-01B

Sample wt/vol: 30.3 (g/mL) G

Lab File ID: S4F4611.D

Level: (LOW/MED) LOW

Extraction: (Type) SONC

% Moisture: 15

Decanted: (Y/N) N

Date Received: 07/24/2013

Concentrated Extract Volume: 500 (uL)

Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL)

GPC Factor: 2.00

Date Analyzed: 08/03/2013

GPC Cleanup: (Y/N) Y

pH: 7.0

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
100-52-7	Benzaldehyde	200	U
108-95-2	Phenol	200	U
111-44-4	Bis(2-chloroethyl)ether	200	U
95-57-8	2-Chlorophenol	200	U
95-48-7	2-Methylphenol	200	U
108-60-1	2,2'-Oxybis(1-chloropropane)	200	U
98-86-2	Acetophenone	200	U
106-44-5	4-Methylphenol	200	U
621-64-7	N-Nitroso-di-n-propylamine	200	U
67-72-1	Hexachloroethane	200	U
98-95-3	Nitrobenzene	200	U
78-59-1	Isophorone	200	U
88-75-5	2-Nitrophenol	200	U
105-67-9	2,4-Dimethylphenol	200	U
111-91-1	Bis(2-chloroethoxy)methane	200	U
120-83-2	2,4-Dichlorophenol	200	U
91-20-3	Naphthalene	200	U
106-47-8	4-Chloroaniline	200	U
87-68-3	Hexachlorobutadiene	200	U
105-60-2	Caprolactam	200	U
59-50-7	4-Chloro-3-methylphenol	200	U
91-57-6	2-Methylnaphthalene	200	U
77-47-4	Hexachlorocyclopentadiene	200	U
88-06-2	2,4,6-Trichlorophenol	200	U
95-95-4	2,4,5-Trichlorophenol	200	U
92-52-4	1,1'-Biphenyl	200	U
91-58-7	2-Chloronaphthalene	200	U
88-74-4	2-Nitroaniline	380	U
131-11-3	Dimethylphthalate	200	U
606-20-2	2,6-Dinitrotoluene	200	U
208-96-8	Acenaphthylene	200	U
99-09-2	3-Nitroaniline	380	U
83-32-9	Acenaphthene	200	U

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AA5

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-01B

Sample wt/vol: 30.3 (g/mL) G Lab File ID: S4F4611.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 15 Decanted: (Y/N) N Date Received: 07/24/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/03/2013

GPC Cleanup: (Y/N) Y pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
51-28-5	2,4-Dinitrophenol	380	U
100-02-7	4-Nitrophenol	380	U
132-64-9	Dibenzofuran	200	U
121-14-2	2,4-Dinitrotoluene	200	U
84-66-2	Diethylphthalate	200	U
86-73-7	Fluorene	200	U
7005-72-3	4-Chlorophenyl-phenylether	200	U
100-01-6	4-Nitroaniline	380	U
534-52-1	4,6-Dinitro-2-methylphenol	380	U
86-30-6	N-Nitrosodiphenylamine 1	200	U
95-94-3	1,2,4,5-Tetrachlorobenzene	200	U
101-55-3	4-Bromophenyl-phenylether	200	U
118-74-1	Hexachlorobenzene	200	U
1912-24-9	Atrazine	200	U
87-86-5	Pentachlorophenol	380	U
85-01-8	Phenanthrene	200	U
120-12-7	Anthracene	200	U
86-74-8	Carbazole	200	U
84-74-2	Di-n-butylphthalate	200	U
206-44-0	Fluoranthene	200	U
129-00-0	Pyrene	200	U
85-68-7	Butylbenzylphthalate	200	U
91-94-1	3,3'-Dichlorobenzidine	200	U
56-55-3	Benzo(a)anthracene	200	U
218-01-9	Chrysene	200	U
117-81-7	Bis(2-ethylhexyl)phthalate	200	U
117-84-0	Di-n-octylphthalate	200	U
205-99-2	Benzo(b)fluoranthene	200	U
207-08-9	Benzo(k)fluoranthene	200	U
50-32-8	Benzo(a)pyrene	200	U
193-39-5	Indeno(1,2,3-cd)pyrene	200	U
53-70-3	Dibenzo(a,h)anthracene	200	U
191-24-2	Benzo(g,h,i)perylene	200	U
58-90-2	2,3,4,6-Tetrachlorophenol	200	U

(1) Cannot be separated from Diphenylamine

1K - FORM I SV-TIC
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
E0AA5

Lab Name: MITKEM LABORATORIES
Contract: EP-W-11-033
Lab Code: MITKEM
Case No.: 43638
Mod. Ref No.:
SDG No.: E0AA5
Matrix: (SOIL/SED/WATER) SOIL
Lab Sample ID: M1238-01B
Sample wt/vol: 30.3 (g/mL) G
Lab File ID: S4F4611.D
Level: (TRACE or LOW/MED) LOW
Extraction: (Type) SONC
% Moisture: 15
Decanted: (Y/N) N
Date Received: 07/24/2013
Concentrated Extract Volume: 500 (uL)
Date Extracted: 08/02/2013
Injection Volume: 2.0 (uL)
GPC Factor: 2.00
Date Analyzed: 08/03/2013
GPC Cleanup: (Y/N) Y
pH: 7.0
Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	2.827	770	~~J~~ U
02		Unknown-02	2.899	80	~~J~~ U
03		Unknown-03	2.930	390	~~J~~ U
04		Unknown-04	2.951	700	~~J~~ U
05		Unknown-05	3.013	470	~~J~~ U
06		Unknown-06	3.044	720	~~J~~ U
07		Unknown-07	3.075	130	~~J~~ U
08		Unknown-08	3.623	170	J
09		Unknown-09	3.727	100	J
10		Unknown-10	4.420	120	J
11		Unknown-11	5.135	100	J
12		Unknown-12	5.373	220	J
13		Unknown-13	5.559	170	~~J~~ U
14		Unknown-14	6.408	100	J
15		Unknown-15	6.760	330	J
16		Unknown-16	11.200	250	J
17		Unknown-17	12.742	170	J
18		Unknown-18	12.815	270	J
19		Unknown-19	15.506	520	J
20		Unknown-20	15.713	240	J
	E96679[2]	Total Alkanes	N/A		

[2] EPA-designated Registry Number.

CM 8/16/13

SOM01.2 (6/2007)

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AA6

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-02B

Sample wt/vol: 30.8 (g/mL) G Lab File ID: S4F4612.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 6.7 Decanted: (Y/N) N Date Received: 07/24/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/03/2013

GPC Cleanup: (Y/N) Y pH: 6.7 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
100-52-7	Benzaldehyde	180	U
108-95-2	Phenol	180	U
111-44-4	Bis(2-chloroethyl)ether	180	U
95-57-8	2-Chlorophenol	180	U
95-48-7	2-Methylphenol	180	U
108-60-1	2,2'-Oxybis(1-chloropropane)	180	U
98-86-2	Acetophenone	180	U
106-44-5	4-Methylphenol	180	U
621-64-7	N-Nitroso-di-n-propylamine	180	U
67-72-1	Hexachloroethane	180	U
98-95-3	Nitrobenzene	180	U
78-59-1	Isophorone	180	U
88-75-5	2-Nitrophenol	180	U
105-67-9	2,4-Dimethylphenol	180	U
111-91-1	Bis(2-chloroethoxy)methane	180	U
120-83-2	2,4-Dichlorophenol	180	U
91-20-3	Naphthalene	180	U
106-47-8	4-Chloroaniline	180	U
87-68-3	Hexachlorobutadiene	180	U
105-60-2	Caprolactam	180	U
59-50-7	4-Chloro-3-methylphenol	180	U
91-57-6	2-Methylnaphthalene	180	U
77-47-4	Hexachlorocyclopentadiene	180	U
88-06-2	2,4,6-Trichlorophenol	180	U
95-95-4	2,4,5-Trichlorophenol	180	U
92-52-4	1,1'-Biphenyl	180	U
91-58-7	2-Chloronaphthalene	180	U
88-74-4	2-Nitroaniline	340	U
131-11-3	Dimethylphthalate	180	U
606-20-2	2,6-Dinitrotoluene	180	U
208-96-8	Acenaphthylene	180	U
99-09-2	3-Nitroaniline	340	U
83-32-9	Acenaphthene	180	U

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AA6

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-02B

Sample wt/vol: 30.8 (g/mL) G Lab File ID: S4F4612.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 6.7 Decanted: (Y/N) N Date Received: 07/24/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/03/2013

GPC Cleanup: (Y/N) Y pH: 6.7 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
51-28-5	2,4-Dinitrophenol	340	U
100-02-7	4-Nitrophenol	340	U
132-64-9	Dibenzofuran	180	U
121-14-2	2,4-Dinitrotoluene	180	U
84-66-2	Diethylphthalate	180	U
86-73-7	Fluorene	180	U
7005-72-3	4-Chlorophenyl-phenylether	180	U
100-01-6	4-Nitroaniline	340	U
534-52-1	4,6-Dinitro-2-methylphenol	340	U
86-30-6	N-Nitrosodiphenylamine (1)	180	U
95-94-3	1,2,4,5-Tetrachlorobenzene	180	U
101-55-3	4-Bromophenyl-phenylether	180	U
118-74-1	Hexachlorobenzene	180	U
1912-24-9	Atrazine	180	U
87-86-5	Pentachlorophenol	340	U
85-01-8	Phenanthrene	180	U
120-12-7	Anthracene	180	U
86-74-8	Carbazole	180	U
84-74-2	Di-n-butylphthalate	180	U
206-44-0	Fluoranthene	180	U
129-00-0	Pyrene	180	U
85-68-7	Butylbenzylphthalate	180	U
91-94-1	3,3'-Dichlorobenzidine	180	U
56-55-3	Benzo(a)anthracene	180	U
218-01-9	Chrysene	180	U
117-81-7	Bis(2-ethylhexyl)phthalate	180	U
117-84-0	Di-n-octylphthalate	180	U
205-99-2	Benzo(b)fluoranthene	180	U
207-08-9	Benzo(k)fluoranthene	180	U
50-32-8	Benzo(a)pyrene	180	U
193-39-5	Indeno(1,2,3-cd)pyrene	180	U
53-70-3	Dibenzo(a,h)anthracene	180	U
191-24-2	Benzo(g,h,i)perylene	180	U
58-90-2	2,3,4,6-Tetrachlorophenol	180	U

(1) Cannot be separated from Diphenylamine

SOM01.2 (6/2007)

1K - FORM I SV-TIC
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
E0AA6

Lab Name: MITKEM LABORATORIES
Contract: EP-W-11-033
Lab Code: MITKEM Case No.: 43638
Mod. Ref No.: SDG No.: E0AA5
Matrix: (SOIL/SED/WATER) SOIL
Lab Sample ID: M1238-02B
Sample wt/vol: 30.8 (g/mL) G
Lab File ID: S4F4612.D
Level: (TRACE or LOW/MED) LOW
Extraction: (Type) SONC
% Moisture: 6.7 Decanted: (Y/N) N
Date Received: 07/24/2013
Concentrated Extract Volume: 500 (uL)
Date Extracted: 08/02/2013
Injection Volume: 2.0 (uL) GPC Factor: 2.00
Date Analyzed: 08/03/2013
GPC Cleanup: (Y/N) Y pH: 6.7
Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	2.827	520	~~J~~ U
02		Unknown-02	2.930	280	~~J~~ U
03		Unknown-03	2.951	260	~~J~~ U
04		Unknown-04	3.013	300	~~J~~ U
05		Unknown-05	3.044	480	~~J~~ U
06		Unknown-06	3.241	730	J
07		Unknown-07	3.623	89	J
08		Unknown-08	4.420	120	J
09		Unknown-09	5.135	76	J
10		Unknown-10	5.373	170	J
11		Unknown-11	5.559	95	~~J~~ U
12		Unknown-12	6.397	76	J
13		Unknown-13	6.749	280	J
14		Unknown-14	7.184	86	J
15		Unknown-15	11.200	140	J
16		Unknown-16	12.815	150	J
17		Unknown-17	13.022	85	J
18		Unknown-18	13.280	450	J
19		Unknown-19	14.212	85	J
20		Unknown-20	14.926	150	J
21		Unknown-21	15.381	17000	J
22		Unknown-22	16.199	810	J
23		Unknown-23	16.416	350	J
24		Unknown-24	16.996	3000	J
	E96679[2]	Total Alkanes	N/A		

[2]EPA-designated Registry Number.

CM 8/16/13

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AA8

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-03B

Sample wt/vol: 30.3 (g/mL) G Lab File ID: S4F4613.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 6.1 Decanted: (Y/N) N Date Received: 07/25/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/03/2013

GPC Cleanup: (Y/N) Y pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
100-52-7	Benzaldehyde	180	U
108-95-2	Phenol	180	U
111-44-4	Bis(2-chloroethyl)ether	180	U
95-57-8	2-Chlorophenol	180	U
95-48-7	2-Methylphenol	180	U
108-60-1	2,2'-Oxybis(1-chloropropane)	180	U
98-86-2	Acetophenone	180	U
106-44-5	4-Methylphenol	180	U
621-64-7	N-Nitroso-di-n-propylamine	180	U
67-72-1	Hexachloroethane	180	U
98-95-3	Nitrobenzene	180	U
78-59-1	Isophorone	180	U
88-75-5	2-Nitrophenol	180	U
105-67-9	2,4-Dimethylphenol	180	U
111-91-1	Bis(2-chloroethoxy)methane	180	U
120-83-2	2,4-Dichlorophenol	180	U
91-20-3	Naphthalene	180	U
106-47-8	4-Chloroaniline	180	U
87-68-3	Hexachlorobutadiene	180	U
105-60-2	Caprolactam	180	U
59-50-7	4-Chloro-3-methylphenol	180	U
91-57-6	2-Methylnaphthalene	180	U
77-47-4	Hexachlorocyclopentadiene	180	U
88-06-2	2,4,6-Trichlorophenol	180	U
95-95-4	2,4,5-Trichlorophenol	180	U
92-52-4	1,1'-Biphenyl	180	U
91-58-7	2-Chloronaphthalene	180	U
88-74-4	2-Nitroaniline	350	U
131-11-3	Dimethylphthalate	180	U
606-20-2	2,6-Dinitrotoluene	180	U
208-96-8	Acenaphthylene	180	U
99-09-2	3-Nitroaniline	350	U
83-32-9	Acenaphthene	180	U

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AA8

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638

Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1238-03B

Sample wt/vol: 30.3 (g/mL) G

Lab File ID: S4F4613.D

Level: (LOW/MED) LOW

Extraction: (Type) SONC

% Moisture: 6.1 Decanted: (Y/N) N

Date Received: 07/25/2013

Concentrated Extract Volume: 500 (uL)

Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00

Date Analyzed: 08/03/2013

GPC Cleanup: (Y/N) Y pH: 7.0

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
51-28-5	2,4-Dinitrophenol	350	U
100-02-7	4-Nitrophenol	350	U
132-64-9	Dibenzofuran	180	U
121-14-2	2,4-Dinitrotoluene	180	U
84-66-2	Diethylphthalate	180	U
86-73-7	Fluorene	180	U
7005-72-3	4-Chlorophenyl-phenylether	180	U
100-01-6	4-Nitroaniline	350	U
534-52-1	4,6-Dinitro-2-methylphenol	350	U
86-30-6	N-Nitrosodiphenylamine (1)	180	U
95-94-3	1,2,4,5-Tetrachlorobenzene	180	U
101-55-3	4-Bromophenyl-phenylether	180	U
118-74-1	Hexachlorobenzene	180	U
1912-24-9	Atrazine	180	U
87-86-5	Pentachlorophenol	350	U
85-01-8	Phenanthrene	180	U
120-12-7	Anthracene	180	U
86-74-8	Carbazole	180	U
84-74-2	Di-n-butylphthalate	180	U
206-44-0	Fluoranthene	180	U
129-00-0	Pyrene	180	U
85-68-7	Butylbenzylphthalate	180	U
91-94-1	3,3'-Dichlorobenzidine	180	U
56-55-3	Benzo(a)anthracene	180	U
218-01-9	Chrysene	180	U
117-81-7	Bis(2-ethylhexyl)phthalate	180	U
117-84-0	Di-n-octylphthalate	180	U
205-99-2	Benzo(b)fluoranthene	180	U
207-08-9	Benzo(k)fluoranthene	180	U
50-32-8	Benzo(a)pyrene	180	U
193-39-5	Indeno(1,2,3-cd)pyrene	180	U
53-70-3	Dibenzo(a,h)anthracene	180	U
191-24-2	Benzo(g,h,i)perylene	180	U
58-90-2	2,3,4,6-Tetrachlorophenol	180	U

(1) Cannot be separated from Diphenylamine

SOM01.2 (6/2007)

1K - FORM I SV-TIC

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E0AA8

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-03B

Sample wt/vol: 30.3 (g/mL) G Lab File ID: S4F4613.D

Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 6.1 Decanted: (Y/N) N Date Received: 07/25/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/03/2013

GPC Cleanup: (Y/N) Y pH: 7.0 Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	2.826	520	~~J~~ U
02		Unknown-02	2.930	280	~~J~~ U
03		Unknown-03	2.951	420	~~J~~ U
04		Unknown-04	3.013	290	~~J~~ U
05		Unknown-05	3.044	470	~~J~~ U
06		Unknown-06	3.075	95	~~J~~ U
07		Unknown-07	3.240	800	J
08		Unknown-08	3.416	92	J
09		Unknown-09	3.623	110	J
10		Unknown-10	3.727	120	J
11		Unknown-11	5.373	170	J
12		Unknown-12	5.559	88	~~J~~ U
13		Unknown-13	6.397	78	J
14		Unknown-14	6.749	300	J
15	111-06-8	Hexadecanoic acid, butyl est	10.413	170	NJ
16		Unknown-15	11.200	90	J
17		Unknown-16	11.262	130	J
18		Unknown-17	11.717	75	J
19		Unknown-18	12.814	76	J
20		Unknown-19	13.021	150	J
21		Unknown-20	13.280	480	J
22		Unknown-21	15.361	150	J
23		Unknown-22	16.002	280	J
	E966796[2]	Total Alkanes	N/A		

[2]EPA-designated Registry Number.

CAL 8/16/13

SOM01.2 (6/2007)

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AA9

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638

Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1238-04B

Sample wt/vol: 30.6 (g/mL) G

Lab File ID: S4F4614.D

Level: (LOW/MED) LOW

Extraction: (Type) SONC

% Moisture: 9.1 Decanted: (Y/N) N

Date Received: 07/25/2013

Concentrated Extract Volume: 500 (uL)

Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00

Date Analyzed: 08/03/2013

GPC Cleanup: (Y/N) Y pH: 6.7

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
100-52-7	Benzaldehyde	180	U
108-95-2	Phenol	180	U
111-44-4	Bis(2-chloroethyl)ether	180	U
95-57-8	2-Chlorophenol	180	U
95-48-7	2-Methylphenol	180	U
108-60-1	2,2'-Oxybis(1-chloropropane)	180	U
98-86-2	Acetophenone	180	U
106-44-5	4-Methylphenol	180	U
621-64-7	N-Nitroso-di-n-propylamine	180	U
67-72-1	Hexachloroethane	180	U
98-95-3	Nitrobenzene	180	U
78-59-1	Isophorone	180	U
88-75-5	2-Nitrophenol	180	U
105-67-9	2,4-Dimethylphenol	180	U
111-91-1	Bis(2-chloroethoxy)methane	180	U
120-83-2	2,4-Dichlorophenol	180	U
91-20-3	Naphthalene	180	U
106-47-8	4-Chloroaniline	180	U
87-68-3	Hexachlorobutadiene	180	U
105-60-2	Caprolactam	180	U
59-50-7	4-Chloro-3-methylphenol	180	U
91-57-6	2-Methylnaphthalene	180	U
77-47-4	Hexachlorocyclopentadiene	180	U
88-06-2	2,4,6-Trichlorophenol	180	U
95-95-4	2,4,5-Trichlorophenol	180	U
92-52-4	1,1'-Biphenyl	180	U
91-58-7	2-Chloronaphthalene	180	U
88-74-4	2-Nitroaniline	360	U
131-11-3	Dimethylphthalate	180	U
606-20-2	2,6-Dinitrotoluene	180	U
208-96-8	Acenaphthylene	180	U
99-09-2	3-Nitroaniline	360	U
83-32-9	Acenaphthene	180	U

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AA9

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-04B

Sample wt/vol: 30.6 (g/mL) G Lab File ID: S4F4614.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 9.1 Decanted: (Y/N) N Date Received: 07/25/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/03/2013

GPC Cleanup: (Y/N) Y pH: 6.7 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
51-28-5	2,4-Dinitrophenol	360	U
100-02-7	4-Nitrophenol	360	U
132-64-9	Dibenzofuran	180	U
121-14-2	2,4-Dinitrotoluene	180	U
84-66-2	Diethylphthalate	180	U
86-73-7	Fluorene	180	U
7005-72-3	4-Chlorophenyl-phenylether	180	U
100-01-6	4-Nitroaniline	360	U
534-52-1	4,6-Dinitro-2-methylphenol	360	U
86-30-6	N-Nitrosodiphenylamine 1	180	U
95-94-3	1,2,4,5-Tetrachlorobenzene	180	U
101-55-3	4-Bromophenyl-phenylether	180	U
118-74-1	Hexachlorobenzene	180	U
1912-24-9	Atrazine	180	U
87-86-5	Pentachlorophenol	360	U
85-01-8	Phenanthrene	180	U
120-12-7	Anthracene	180	U
86-74-8	Carbazole	180	U
84-74-2	Di-n-butylphthalate	180	U
206-44-0	Fluoranthene	180	U
129-00-0	Pyrene	180	U
85-68-7	Butylbenzylphthalate	180	U
91-94-1	3,3'-Dichlorobenzidine	180	U
56-55-3	Benzo(a)anthracene	180	U
218-01-9	Chrysene	180	U
117-81-7	Bis(2-ethylhexyl)phthalate	180	U
117-84-0	Di-n-octylphthalate	180	U
205-99-2	Benzo(b)fluoranthene	180	U
207-08-9	Benzo(k)fluoranthene	180	U
50-32-8	Benzo(a)pyrene	180	U
193-39-5	Indeno(1,2,3-cd)pyrene	180	U
53-70-3	Dibenzo(a,h)anthracene	180	U
191-24-2	Benzo(g,h,i)perylene	180	U
58-90-2	2,3,4,6-Tetrachlorophenol	180	U

(1) Cannot be separated from Diphenylamine

SOM01.2 (6/2007)

1K - FORM I SV-TIC
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
E0AA9

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-04B

Sample wt/vol: 30.6 (g/mL) G Lab File ID: S4F4614.D

Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 9.1 Decanted: (Y/N) N Date Received: 07/25/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/03/2013

GPC Cleanup: (Y/N) Y pH: 6.7 Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	2.826	680	~~J~~ U
02		Unknown-02	2.930	360	~~J~~ U
03		Unknown-03	2.951	550	~~J~~ U
04		Unknown-04	3.013	390	~~J~~ U
05		Unknown-05	3.044	620	~~J~~ U
06		Unknown-06	3.075	110	~~J~~ U
07		Unknown-07	3.416	100	J
08		Unknown-08	3.623	190	J
09		Unknown-09	3.727	140	J
10		Unknown-10	4.420	100	J
11		Unknown-11	5.373	140	J
12		Unknown-12	5.559	110	~~J~~ U
13		Unknown-13	6.408	91	J
14		Unknown-14	6.759	320	J
15		Unknown-15	7.422	74	J
16		Unknown-16	11.200	300	J
17		Unknown-17	11.717	89	J
18		Unknown-18	12.814	150	J
19		Unknown-19	14.212	120	J
	E966796[2]	Total Alkanes	N/A		

[2]EPA-designated Registry Number.

OR 8/14/13

SOM01.2 (6/2007)

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AB0

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-05B

Sample wt/vol: 30.2 (g/mL) G Lab File ID: S4F4615.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 7.3 Decanted: (Y/N) N Date Received: 07/25/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/03/2013

GPC Cleanup: (Y/N) Y pH: 6.9 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
100-52-7	Benzaldehyde	180	U
108-95-2	Phenol	180	U
111-44-4	Bis(2-chloroethyl)ether	180	U
95-57-8	2-Chlorophenol	180	U
95-48-7	2-Methylphenol	180	U
108-60-1	2,2'-Oxybis(1-chloropropane)	180	U
98-86-2	Acetophenone	180	U
106-44-5	4-Methylphenol	180	U
621-64-7	N-Nitroso-di-n-propylamine	180	U
67-72-1	Hexachloroethane	180	U
98-95-3	Nitrobenzene	180	U
78-59-1	Isophorone	180	U
88-75-5	2-Nitrophenol	180	U
105-67-9	2,4-Dimethylphenol	180	U
111-91-1	Bis(2-chloroethoxy)methane	180	U
120-83-2	2,4-Dichlorophenol	180	U
91-20-3	Naphthalene	180	U
106-47-8	4-Chloroaniline	180	U
87-68-3	Hexachlorobutadiene	180	U
105-60-2	Caprolactam	180	U
59-50-7	4-Chloro-3-methylphenol	180	U
91-57-6	2-Methylnaphthalene	180	U
77-47-4	Hexachlorocyclopentadiene	180	U
88-06-2	2,4,6-Trichlorophenol	180	U
95-95-4	2,4,5-Trichlorophenol	180	U
92-52-4	1,1'-Biphenyl	180	U
91-58-7	2-Chloronaphthalene	180	U
88-74-4	2-Nitroaniline	350	U
131-11-3	Dimethylphthalate	180	U
606-20-2	2,6-Dinitrotoluene	180	U
208-96-8	Acenaphthylene	180	U
99-09-2	3-Nitroaniline	350	U
83-32-9	Acenaphthene	180	U

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AB0

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-05B

Sample wt/vol: 30.2 (g/mL) G Lab File ID: S4F4615.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 7.3 Decanted: (Y/N) N Date Received: 07/25/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/03/2013

GPC Cleanup: (Y/N) Y pH: 6.9 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
51-28-5	2,4-Dinitrophenol	350	U
100-02-7	4-Nitrophenol	350	U
132-64-9	Dibenzofuran	180	U
121-14-2	2,4-Dinitrotoluene	180	U
84-66-2	Diethylphthalate	180	U
86-73-7	Fluorene	180	U
7005-72-3	4-Chlorophenyl-phenylether	180	U
100-01-6	4-Nitroaniline	350	U
534-52-1	4,6-Dinitro-2-methylphenol	350	U
86-30-6	N-Nitrosodiphenylamine 1	180	U
95-94-3	1,2,4,5-Tetrachlorobenzene	180	U
101-55-3	4-Bromophenyl-phenylether	180	U
118-74-1	Hexachlorobenzene	180	U
1912-24-9	Atrazine	180	U
87-86-5	Pentachlorophenol	350	U
85-01-8	Phenanthrene	180	U
120-12-7	Anthracene	180	U
86-74-8	Carbazole	180	U
84-74-2	Di-n-butylphthalate	180	U
206-44-0	Fluoranthene	180	U
129-00-0	Pyrene	180	U
85-68-7	Butylbenzylphthalate	41	J
91-94-1	3,3'-Dichlorobenzidine	180	U
56-55-3	Benzo(a)anthracene	180	U
218-01-9	Chrysene	180	U
117-81-7	Bis(2-ethylhexyl)phthalate	38	J
117-84-0	Di-n-octylphthalate	180	U
205-99-2	Benzo(b)fluoranthene	180	U
207-08-9	Benzo(k)fluoranthene	180	U
50-32-8	Benzo(a)pyrene	180	U
193-39-5	Indeno(1,2,3-cd)pyrene	180	U
53-70-3	Dibenzo(a,h)anthracene	180	U
191-24-2	Benzo(g,h,i)perylene	180	U
58-90-2	2,3,4,6-Tetrachlorophenol	180	U

(1) Cannot be separated from Diphenylamine

SOM01.2 (6/2007)

1K - FORM I SV-TIC
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
E0AB0

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-05B

Sample wt/vol: 30.2 (g/mL) G Lab File ID: S4F4615.D

Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 7.3 Decanted: (Y/N) N Date Received: 07/25/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/03/2013

GPC Cleanup: (Y/N) Y pH: 6.9 Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	2.827	610	~~J~~ U
02		Unknown-02	2.930	340	~~J~~ U
03		Unknown-03	2.951	390	~~J~~ U
04		Unknown-04	3.013	370	~~J~~ U
05		Unknown-05	3.044	550	~~J~~ U
06		Unknown-06	3.075	110	~~J~~ U
07		Unknown-07	3.241	850	J
08		Unknown-08	3.623	140	J
09		Unknown-09	3.727	120	J
10		Unknown-10	3.934	72	J
11		Unknown-11	4.979	73	J
12		Unknown-12	5.373	140	J
13		Unknown-13	5.549	130	~~J~~ U
14		Unknown-14	6.749	240	J
15		Unknown-15	7.080	73	J
16		Unknown-16	11.200	190	J
17		Unknown-17	11.728	110	J
18		Unknown-18	12.815	150	J
19		Unknown-19	14.212	100	J
20		Unknown-20	15.371	7800	J
21		Unknown-21	15.702	220	J
22		Unknown-22	16.002	260	J
23		Unknown-23	16.199	420	J
24		Unknown-24	16.427	260	J
25		Unknown-25	16.996	1600	J
	E966796[2]	Total Alkanes	N/A		

[2]EPA-designated Registry Number.

CR 8/16/13

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AB1

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-06B

Sample wt/vol: 30.3 (g/mL) G Lab File ID: S4F4616.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 6.2 Decanted: (Y/N) N Date Received: 07/25/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/03/2013

GPC Cleanup: (Y/N) Y pH: 6.7 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
100-52-7	Benzaldehyde	180	U
108-95-2	Phenol	180	U
111-44-4	Bis(2-chloroethyl)ether	180	U
95-57-8	2-Chlorophenol	180	U
95-48-7	2-Methylphenol	180	U
108-60-1	2,2'-Oxybis(1-chloropropane)	180	U
98-86-2	Acetophenone	180	U
106-44-5	4-Methylphenol	180	U
621-64-7	N-Nitroso-di-n-propylamine	180	U
67-72-1	Hexachloroethane	180	U
98-95-3	Nitrobenzene	180	U
78-59-1	Isophorone	180	U
88-75-5	2-Nitrophenol	180	U
105-67-9	2,4-Dimethylphenol	180	U
111-91-1	Bis(2-chloroethoxy)methane	180	U
120-83-2	2,4-Dichlorophenol	180	U
91-20-3	Naphthalene	180	U
106-47-8	4-Chloroaniline	180	U
87-68-3	Hexachlorobutadiene	180	U
105-60-2	Caprolactam	180	U
59-50-7	4-Chloro-3-methylphenol	180	U
91-57-6	2-Methylnaphthalene	180	U
77-47-4	Hexachlorocyclopentadiene	180	U
88-06-2	2,4,6-Trichlorophenol	180	U
95-95-4	2,4,5-Trichlorophenol	180	U
92-52-4	1,1'-Biphenyl	180	U
91-58-7	2-Chloronaphthalene	180	U
88-74-4	2-Nitroaniline	350	U
131-11-3	Dimethylphthalate	180	U
606-20-2	2,6-Dinitrotoluene	180	U
208-96-8	Acenaphthylene	180	U
99-09-2	3-Nitroaniline	350	U
83-32-9	Acenaphthene	180	U

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AB1

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-06B

Sample wt/vol: 30.3 (g/mL) G Lab File ID: S4F4616.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 6.2 Decanted: (Y/N) N Date Received: 07/25/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/03/2013

GPC Cleanup: (Y/N) Y pH: 6.7 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
51-28-5	2,4-Dinitrophenol	350	U
100-02-7	4-Nitrophenol	350	U
132-64-9	Dibenzofuran	180	U
121-14-2	2,4-Dinitrotoluene	180	U
84-66-2	Diethylphthalate	180	U
86-73-7	Fluorene	180	U
7005-72-3	4-Chlorophenyl-phenylether	180	U
100-01-6	4-Nitroaniline	350	U
534-52-1	4,6-Dinitro-2-methylphenol	350	U
86-30-6	N-Nitrosodiphenylamine 1	180	U
95-94-3	1,2,4,5-Tetrachlorobenzene	180	U
101-55-3	4-Bromophenyl-phenylether	180	U
118-74-1	Hexachlorobenzene	180	U
1912-24-9	Atrazine	180	U
87-86-5	Pentachlorophenol	350	U
85-01-8	Phenanthrene	180	U
120-12-7	Anthracene	180	U
86-74-8	Carbazole	180	U
84-74-2	Di-n-butylphthalate	180	U
206-44-0	Fluoranthene	180	U
129-00-0	Pyrene	180	U
85-68-7	Butylbenzylphthalate	38	J
91-94-1	3,3'-Dichlorobenzidine	180	U
56-55-3	Benzo(a)anthracene	180	U
218-01-9	Chrysene	180	U
117-81-7	Bis(2-ethylhexyl)phthalate	38	J
117-84-0	Di-n-octylphthalate	180	U
205-99-2	Benzo(b)fluoranthene	180	U
207-08-9	Benzo(k)fluoranthene	180	U
50-32-8	Benzo(a)pyrene	180	U
193-39-5	Indeno(1,2,3-cd)pyrene	180	U
53-70-3	Dibenzo(a,h)anthracene	180	U
191-24-2	Benzo(g,h,i)perylene	180	U
58-90-2	2,3,4,6-Tetrachlorophenol	180	U

(1) Cannot be separated from Diphenylamine

1K - FORM I SV-TIC

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E0AB1

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-06B

Sample wt/vol: 30.3 (g/mL) G Lab File ID: S4F4616.D

Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 6.2 Decanted: (Y/N) N Date Received: 07/25/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/03/2013

GPC Cleanup: (Y/N) Y pH: 6.7 Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	2.837	450	~~J~~ U
02		Unknown-02	2.930	270	~~J~~ U
03		Unknown-03	2.951	360	~~J~~ U
04		Unknown-04	3.023	410	~~J~~ U
05		Unknown-05	3.044	350	~~J~~ U
06		Unknown-06	3.075	80	~~J~~ U
07		Unknown-07	3.416	76	J
08		Unknown-08	3.623	110	J
09		Unknown-09	3.727	74	J
10		Unknown-10	4.420	76	J
11		Unknown-11	4.979	82	J
12		Unknown-12	5.135	92	J
13		Unknown-13	5.373	180	J
14		Unknown-14	5.559	120	~~J~~ U
15		Unknown-15	6.397	130	J
16		Unknown-16	6.749	380	J
17		Unknown-17	11.200	180	J
18		Unknown-18	11.717	72	J
19		Unknown-19	12.483	72	J
20		Unknown-20	12.814	130	J
21		Unknown-21	14.212	130	J
22		Unknown-22	15.371	8500	J
23		Unknown-23	15.712	460	J
24		Unknown-24	16.013	370	J
25		Unknown-25	16.199	440	J
26		Unknown-26	16.416	330	J
27		Unknown-27	16.986	1800	J
	E96679[2]	Total Alkanes	N/A		

[2]EPA-designated Registry Number.

cm 8/16/13

SOM01.2 (6/2007)

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AB2

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-07B

Sample wt/vol: 30.2 (g/mL) G Lab File ID: S4F4617.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 2.0 Decanted: (Y/N) N Date Received: 07/25/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/03/2013

GPC Cleanup: (Y/N) Y pH: 6.9 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
100-52-7	Benzaldehyde	170	U
108-95-2	Phenol	170	U
111-44-4	Bis(2-chloroethyl)ether	170	U
95-57-8	2-Chlorophenol	170	U
95-48-7	2-Methylphenol	170	U
108-60-1	2,2´-Oxybis(1-chloropropane)	170	U
98-86-2	Acetophenone	170	U
106-44-5	4-Methylphenol	170	U
621-64-7	N-Nitroso-di-n-propylamine	170	U
67-72-1	Hexachloroethane	170	U
98-95-3	Nitrobenzene	170	U
78-59-1	Isophorone	170	U
88-75-5	2-Nitrophenol	170	U
105-67-9	2,4-Dimethylphenol	170	U
111-91-1	Bis(2-chloroethoxy)methane	170	U
120-83-2	2,4-Dichlorophenol	170	U
91-20-3	Naphthalene	170	U
106-47-8	4-Chloroaniline	170	U
87-68-3	Hexachlorobutadiene	170	U
105-60-2	Caprolactam	170	U
59-50-7	4-Chloro-3-methylphenol	170	U
91-57-6	2-Methylnaphthalene	170	U
77-47-4	Hexachlorocyclopentadiene	170	U
88-06-2	2,4,6-Trichlorophenol	170	U
95-95-4	2,4,5-Trichlorophenol	170	U
92-52-4	1,1´-Biphenyl	170	U
91-58-7	2-Chloronaphthalene	170	U
88-74-4	2-Nitroaniline	330	U
131-11-3	Dimethylphthalate	170	U
606-20-2	2,6-Dinitrotoluene	170	U
208-96-8	Acenaphthylene	170	U
99-09-2	3-Nitroaniline	330	U
83-32-9	Acenaphthene	170	U

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AB2

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638

Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1238-07B

Sample wt/vol: 30.2 (g/mL) G

Lab File ID: S4F4617.D

Level: (LOW/MED) LOW

Extraction: (Type) SONC

% Moisture: 2.0 Decanted: (Y/N) N

Date Received: 07/25/2013

Concentrated Extract Volume: 500 (uL)

Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00

Date Analyzed: 08/03/2013

GPC Cleanup: (Y/N) Y pH: 6.9

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
51-28-5	2,4-Dinitrophenol	330	U
100-02-7	4-Nitrophenol	330	U
132-64-9	Dibenzofuran	170	U
121-14-2	2,4-Dinitrotoluene	170	U
84-66-2	Diethylphthalate	170	U
86-73-7	Fluorene	170	U
7005-72-3	4-Chlorophenyl-phenylether	170	U
100-01-6	4-Nitroaniline	330	U
534-52-1	4,6-Dinitro-2-methylphenol	330	U
86-30-6	N-Nitrosodiphenylamine (1)	170	U
95-94-3	1,2,4,5-Tetrachlorobenzene	170	U
101-55-3	4-Bromophenyl-phenylether	170	U
118-74-1	Hexachlorobenzene	170	U
1912-24-9	Atrazine	170	U
87-86-5	Pentachlorophenol	330	U
85-01-8	Phenanthrene	170	U
120-12-7	Anthracene	170	U
86-74-8	Carbazole	170	U
84-74-2	Di-n-butylphthalate	170	U
206-44-0	Fluoranthene	170	U
129-00-0	Pyrene	170	U
85-68-7	Butylbenzylphthalate	170	U
91-94-1	3,3'-Dichlorobenzidine	170	U
56-55-3	Benzo(a)anthracene	170	U
218-01-9	Chrysene	170	U
117-81-7	Bis(2-ethylhexyl)phthalate	170	U
117-84-0	Di-n-octylphthalate	170	U
205-99-2	Benzo(b)fluoranthene	170	U
207-08-9	Benzo(k)fluoranthene	170	U
50-32-8	Benzo(a)pyrene	170	U
193-39-5	Indeno(1,2,3-cd)pyrene	170	U
53-70-3	Dibenzo(a,h)anthracene	170	U
191-24-2	Benzo(g,h,i)perylene	170	U
58-90-2	2,3,4,6-Tetrachlorophenol	170	U

(1) Cannot be separated from Diphenylamine

SOM01.2 (6/2007)

1K - FORM I SV-TIC
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
E0AB2

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-07B

Sample wt/vol: 30.2 (g/mL) G Lab File ID: S4F4617.D

Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 2.0 Decanted: (Y/N) N Date Received: 07/25/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/03/2013

GPC Cleanup: (Y/N) Y pH: 6.9 Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	2.837	440	~~J~~ U
02		Unknown-02	2.930	240	~~J~~ U
03		Unknown-03	2.951	180	~~J~~ U
04		Unknown-04	3.013	390	~~J~~ U
05		Unknown-05	3.044	320	~~J~~ U
06		Unknown-06	3.075	80	~~J~~ U
07		Unknown-07	3.416	85	J
08		Unknown-08	3.623	85	J
09		Unknown-09	3.727	71	J
10		Unknown-10	4.420	81	J
11		Unknown-11	5.114	88	J
12		Unknown-12	5.373	140	J
13		Unknown-13	5.559	79	~~J~~ U
14		Unknown-14	6.408	73	J
15		Unknown-15	6.749	250	J
16		Unknown-16	7.101	76	J
17		Unknown-17	7.422	85	J
18	111-06-8	Hexadecanoic acid, butyl est	10.413	150	NJ
19		Unknown-18	11.200	300	J
20		Unknown-19	11.272	130	J
21		Unknown-20	11.717	100	J
22		Unknown-21	12.814	170	J
23		Unknown-22	15.361	380	J
	E966796[2]	Total Alkanes	N/A		

[2] EPA-designated Registry Number.

CR 8/16/13

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AB2MS

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-07BMS

Sample wt/vol: 30.7 (g/mL) G Lab File ID: S4F4618.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 2.0 Decanted: (Y/N) N Date Received: 07/25/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/03/2013

GPC Cleanup: (Y/N) Y pH: 6.9 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
100-52-7	Benzaldehyde	170	U
108-95-2	Phenol	720	
111-44-4	Bis(2-chloroethyl)ether	170	U
95-57-8	2-Chlorophenol	680	
95-48-7	2-Methylphenol	170	U
108-60-1	2,2'-Oxybis(1-chloropropane)	170	U
98-86-2	Acetophenone	170	U
106-44-5	4-Methylphenol	170	U
621-64-7	N-Nitroso-di-n-propylamine	640	
67-72-1	Hexachloroethane	170	U
98-95-3	Nitrobenzene	170	U
78-59-1	Isophorone	170	U
88-75-5	2-Nitrophenol	170	U
105-67-9	2,4-Dimethylphenol	170	U
111-91-1	Bis(2-chloroethoxy)methane	170	U
120-83-2	2,4-Dichlorophenol	170	U
91-20-3	Naphthalene	170	U
106-47-8	4-Chloroaniline	170	U
87-68-3	Hexachlorobutadiene	170	U
105-60-2	Caprolactam	170	U
59-50-7	4-Chloro-3-methylphenol	710	
91-57-6	2-Methylnaphthalene	170	U
77-47-4	Hexachlorocyclopentadiene	170	U
88-06-2	2,4,6-Trichlorophenol	170	U
95-95-4	2,4,5-Trichlorophenol	170	U
92-52-4	1,1'-Biphenyl	170	U
91-58-7	2-Chloronaphthalene	170	U
88-74-4	2-Nitroaniline	330	U
131-11-3	Dimethylphthalate	170	U
606-20-2	2,6-Dinitrotoluene	170	U
208-96-8	Acenaphthylene	170	U
99-09-2	3-Nitroaniline	330	U
83-32-9	Acenaphthene	660	

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AB2MS

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-07BMS

Sample wt/vol: 30.7 (g/mL) G Lab File ID: S4F4618.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 2.0 Decanted: (Y/N) N Date Received: 07/25/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/03/2013

GPC Cleanup: (Y/N) Y pH: 6.9 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
51-28-5	2,4-Dinitrophenol	330	U
100-02-7	4-Nitrophenol	800	
132-64-9	Dibenzofuran	170	U
121-14-2	2,4-Dinitrotoluene	710	
84-66-2	Diethylphthalate	170	U
86-73-7	Fluorene	170	U
7005-72-3	4-Chlorophenyl-phenylether	170	U
100-01-6	4-Nitroaniline	330	U
534-52-1	4,6-Dinitro-2-methylphenol	330	U
86-30-6	N-Nitrosodiphenylamine 1	170	U
95-94-3	1,2,4,5-Tetrachlorobenzene	170	U
101-55-3	4-Bromophenyl-phenylether	170	U
118-74-1	Hexachlorobenzene	170	U
1912-24-9	Atrazine	170	U
87-86-5	Pentachlorophenol	840	
85-01-8	Phenanthrene	170	U
120-12-7	Anthracene	170	U
86-74-8	Carbazole	170	U
84-74-2	Di-n-butylphthalate	170	U
206-44-0	Fluoranthene	170	U
129-00-0	Pyrene	440	
85-68-7	Butylbenzylphthalate	36	J
91-94-1	3,3'-Dichlorobenzidine	170	U
56-55-3	Benzo(a)anthracene	170	U
218-01-9	Chrysene	170	U
117-81-7	Bis(2-ethylhexyl)phthalate	170	U
117-84-0	Di-n-octylphthalate	170	U
205-99-2	Benzo(b)fluoranthene	170	U
207-08-9	Benzo(k)fluoranthene	170	U
50-32-8	Benzo(a)pyrene	170	U
193-39-5	Indeno(1,2,3-cd)pyrene	170	U
53-70-3	Dibenzo(a,h)anthracene	170	U
191-24-2	Benzo(g,h,i)perylene	170	U
58-90-2	2,3,4,6-Tetrachlorophenol	170	U

(1) Cannot be separated from Diphenylamine

SOM01.2 (6/2007)

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AB2MSD

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638

Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1238-07BMSD

Sample wt/vol: 30.3 (g/mL) G

Lab File ID: S4F4619.D

Level: (LOW/MED) LOW

Extraction: (Type) SONC

% Moisture: 2.0 Decanted: (Y/N) N

Date Received: 07/25/2013

Concentrated Extract Volume: 500 (uL)

Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00

Date Analyzed: 08/03/2013

GPC Cleanup: (Y/N) Y pH: 6.9

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
100-52-7	Benzaldehyde	170	U
108-95-2	Phenol	620	
111-44-4	Bis(2-chloroethyl)ether	170	U
95-57-8	2-Chlorophenol	610	
95-48-7	2-Methylphenol	170	U
108-60-1	2,2'-Oxybis(1-chloropropane)	170	U
98-86-2	Acetophenone	170	U
106-44-5	4-Methylphenol	170	U
621-64-7	N-Nitroso-di-n-propylamine	540	
67-72-1	Hexachloroethane	170	U
98-95-3	Nitrobenzene	170	U
78-59-1	Isophorone	170	U
88-75-5	2-Nitrophenol	170	U
105-67-9	2,4-Dimethylphenol	170	U
111-91-1	Bis(2-chloroethoxy)methane	170	U
120-83-2	2,4-Dichlorophenol	170	U
91-20-3	Naphthalene	170	U
106-47-8	4-Chloroaniline	170	U
87-68-3	Hexachlorobutadiene	170	U
105-60-2	Caprolactam	170	U
59-50-7	4-Chloro-3-methylphenol	640	
91-57-6	2-Methylnaphthalene	170	U
77-47-4	Hexachlorocyclopentadiene	170	U
88-06-2	2,4,6-Trichlorophenol	170	U
95-95-4	2,4,5-Trichlorophenol	170	U
92-52-4	1,1'-Biphenyl	170	U
91-58-7	2-Chloronaphthalene	170	U
88-74-4	2-Nitroaniline	330	U
131-11-3	Dimethylphthalate	170	U
606-20-2	2,6-Dinitrotoluene	170	U
208-96-8	Acenaphthylene	170	U
99-09-2	3-Nitroaniline	330	U
83-32-9	Acenaphthene	580	

SOM01.2 (6/2007)

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AB2MSD

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-07BMSD

Sample wt/vol: 30.3 (g/mL) G Lab File ID: S4F4619.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 2.0 Decanted: (Y/N) N Date Received: 07/25/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/03/2013

GPC Cleanup: (Y/N) Y pH: 6.9 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
51-28-5	2,4-Dinitrophenol	330	U
100-02-7	4-Nitrophenol	640	
132-64-9	Dibenzofuran	170	U
121-14-2	2,4-Dinitrotoluene	650	
84-66-2	Diethylphthalate	170	U
86-73-7	Fluorene	170	U
7005-72-3	4-Chlorophenyl-phenylether	170	U
100-01-6	4-Nitroaniline	330	U
534-52-1	4,6-Dinitro-2-methylphenol	330	U
86-30-6	N-Nitrosodiphenylamine 1	170	U
95-94-3	1,2,4,5-Tetrachlorobenzene	170	U
101-55-3	4-Bromophenyl-phenylether	170	U
118-74-1	Hexachlorobenzene	170	U
1912-24-9	Atrazine	170	U
87-86-5	Pentachlorophenol	860	
85-01-8	Phenanthrene	170	U
120-12-7	Anthracene	170	U
86-74-8	Carbazole	170	U
84-74-2	Di-n-butylphthalate	170	U
206-44-0	Fluoranthene	170	U
129-00-0	Pyrene	390	
85-68-7	Butylbenzylphthalate	170	U
91-94-1	3,3'-Dichlorobenzidine	170	U
56-55-3	Benzo(a)anthracene	170	U
218-01-9	Chrysene	170	U
117-81-7	Bis(2-ethylhexyl)phthalate	170	U
117-84-0	Di-n-octylphthalate	170	U
205-99-2	Benzo(b)fluoranthene	170	U
207-08-9	Benzo(k)fluoranthene	170	U
50-32-8	Benzo(a)pyrene	170	U
193-39-5	Indeno(1,2,3-cd)pyrene	170	U
53-70-3	Dibenzo(a,h)anthracene	170	U
191-24-2	Benzo(g,h,i)perylene	170	U
58-90-2	2,3,4,6-Tetrachlorophenol	170	U

(1) Cannot be separated from Diphenylamine

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AB3

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638

Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1238-08B

Sample wt/vol: 30.8 (g/mL) G

Lab File ID: S4F4620.D

Level: (LOW/MED) LOW

Extraction: (Type) SONC

% Moisture: 33 Decanted: (Y/N) N

Date Received: 07/25/2013

Concentrated Extract Volume: 500 (uL)

Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00

Date Analyzed: 08/03/2013

GPC Cleanup: (Y/N) Y pH: 7.4

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
100-52-7	Benzaldehyde	250	U
108-95-2	Phenol	250	U
111-44-4	Bis(2-chloroethyl)ether	250	U
95-57-8	2-Chlorophenol	250	U
95-48-7	2-Methylphenol	250	U
108-60-1	2,2'-Oxybis(1-chloropropane)	250	U
98-86-2	Acetophenone	250	U
106-44-5	4-Methylphenol	250	U
621-64-7	N-Nitroso-di-n-propylamine	250	U
67-72-1	Hexachloroethane	250	U
98-95-3	Nitrobenzene	250	U
78-59-1	Isophorone	250	U
88-75-5	2-Nitrophenol	250	U
105-67-9	2,4-Dimethylphenol	250	U
111-91-1	Bis(2-chloroethoxy)methane	250	U
120-83-2	2,4-Dichlorophenol	250	U
91-20-3	Naphthalene	250	U
106-47-8	4-Chloroaniline	250	U
87-68-3	Hexachlorobutadiene	250	U
105-60-2	Caprolactam	250	U
59-50-7	4-Chloro-3-methylphenol	250	U
91-57-6	2-Methylnaphthalene	250	U
77-47-4	Hexachlorocyclopentadiene	250	U
88-06-2	2,4,6-Trichlorophenol	250	U
95-95-4	2,4,5-Trichlorophenol	250	U
92-52-4	1,1'-Biphenyl	250	U
91-58-7	2-Chloronaphthalene	250	U
88-74-4	2-Nitroaniline	480	U
131-11-3	Dimethylphthalate	250	U
606-20-2	2,6-Dinitrotoluene	250	U
208-96-8	Acenaphthylene	250	U
99-09-2	3-Nitroaniline	480	U
83-32-9	Acenaphthene	250	U

SOM01.2 (6/2007)

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AB3

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-08B

Sample wt/vol: 30.8 (g/mL) G Lab File ID: S4F4620.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 33 Decanted: (Y/N) N Date Received: 07/25/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/03/2013

GPC Cleanup: (Y/N) Y pH: 7.4 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
51-28-5	2,4-Dinitrophenol	480	U
100-02-7	4-Nitrophenol	480	U
132-64-9	Dibenzofuran	250	U
121-14-2	2,4-Dinitrotoluene	250	U
84-66-2	Diethylphthalate	250	U
86-73-7	Fluorene	250	U
7005-72-3	4-Chlorophenyl-phenylether	250	U
100-01-6	4-Nitroaniline	480	U
534-52-1	4,6-Dinitro-2-methylphenol	480	U
86-30-6	N-Nitrosodiphenylamine 1	250	U
95-94-3	1,2,4,5-Tetrachlorobenzene	250	U
101-55-3	4-Bromophenyl-phenylether	250	U
118-74-1	Hexachlorobenzene	250	U
1912-24-9	Atrazine	250	U
87-86-5	Pentachlorophenol	480	U
85-01-8	Phenanthrene	250	U
120-12-7	Anthracene	250	U
86-74-8	Carbazole	250	U
84-74-2	Di-n-butylphthalate	250	U
206-44-0	Fluoranthene	250	U
129-00-0	Pyrene	250	U
85-68-7	Butylbenzylphthalate	53	J
91-94-1	3,3'-Dichlorobenzidine	250	U
56-55-3	Benzo(a)anthracene	250	U
218-01-9	Chrysene	250	U
117-81-7	Bis(2-ethylhexyl)phthalate	52	J
117-84-0	Di-n-octylphthalate	250	U
205-99-2	Benzo(b)fluoranthene	250	U
207-08-9	Benzo(k)fluoranthene	250	U
50-32-8	Benzo(a)pyrene	250	U
193-39-5	Indeno(1,2,3-cd)pyrene	250	U
53-70-3	Dibenzo(a,h)anthracene	250	U
191-24-2	Benzo(g,h,i)perylene	250	U
58-90-2	2,3,4,6-Tetrachlorophenol	250	U

(1) Cannot be separated from Diphenylamine

1K - FORM I SV-TIC

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E0AB3

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-08B

Sample wt/vol: 30.8 (g/mL) G Lab File ID: S4F4620.D

Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 33 Decanted: (Y/N) N Date Received: 07/25/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/03/2013

GPC Cleanup: (Y/N) Y pH: 7.4 Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	2.837	710	~~J~~ U
02		Unknown-02	2.930	370	~~J~~ U
03		Unknown-03	2.961	410	~~J~~ U
04		Unknown-04	3.023	610	~~J~~ U
05		Unknown-05	3.044	570	~~J~~ U
06		Unknown-06	3.075	140	~~J~~ U
07		Unknown-07	3.624	200	J
08		Unknown-08	3.727	110	J
09		Unknown-09	4.421	190	J
10		Unknown-10	4.710	130	J
11		Unknown-11	5.373	270	J
12		Unknown-12	5.559	110	~~J~~ U
13		Unknown-13	6.408	100	J
14		Unknown-14	6.760	490	J
15		Unknown-15	7.991	120	J
16		Unknown-16	9.896	120	J
17		Unknown-17	9.968	110	J
18	80-05-7	Phenol, 4,4'-(1-methylethyli	10.455	220	NJ
19		Unknown-18	11.200	600	J
20		Unknown-19	11.283	130	J
21		Unknown-20	11.717	120	J
22		Unknown-21	12.815	480	J
23		Unknown-22	12.939	130	J
	E966796[2]	Total Alkanes	N/A		

[2]EPA-designated Registry Number.

CM 8/16/13

SOM01.2 (6/2007)

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AB4

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-09B

Sample wt/vol: 30.4 (g/mL) G Lab File ID: S4F4621.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 18 Decanted: (Y/N) N Date Received: 07/25/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/03/2013

GPC Cleanup: (Y/N) Y pH: 7.9 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
100-52-7	Benzaldehyde	200	U
108-95-2	Phenol	200	U
111-44-4	Bis(2-chloroethyl)ether	200	U
95-57-8	2-Chlorophenol	200	U
95-48-7	2-Methylphenol	200	U
108-60-1	2,2'-Oxybis(1-chloropropane)	200	U
98-86-2	Acetophenone	200	U
106-44-5	4-Methylphenol	200	U
621-64-7	N-Nitroso-di-n-propylamine	200	U
67-72-1	Hexachloroethane	200	U
98-95-3	Nitrobenzene	200	U
78-59-1	Isophorone	200	U
88-75-5	2-Nitrophenol	200	U
105-67-9	2,4-Dimethylphenol	200	U
111-91-1	Bis(2-chloroethoxy)methane	200	U
120-83-2	2,4-Dichlorophenol	200	U
91-20-3	Naphthalene	200	U
106-47-8	4-Chloroaniline	200	U
87-68-3	Hexachlorobutadiene	200	U
105-60-2	Caprolactam	200	U
59-50-7	4-Chloro-3-methylphenol	200	U
91-57-6	2-Methylnaphthalene	200	U
77-47-4	Hexachlorocyclopentadiene	200	U
88-06-2	2,4,6-Trichlorophenol	200	U
95-95-4	2,4,5-Trichlorophenol	200	U
92-52-4	1,1'-Biphenyl	200	U
91-58-7	2-Chloronaphthalene	200	U
88-74-4	2-Nitroaniline	400	U
131-11-3	Dimethylphthalate	200	U
606-20-2	2,6-Dinitrotoluene	200	U
208-96-8	Acenaphthylene	200	U
99-09-2	3-Nitroaniline	400	U
83-32-9	Acenaphthene	200	U

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AB4

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-09B

Sample wt/vol: 30.4 (g/mL) G Lab File ID: S4F4621.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 18 Decanted: (Y/N) N Date Received: 07/25/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/03/2013

GPC Cleanup: (Y/N) Y pH: 7.9 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
51-28-5	2,4-Dinitrophenol	400	U
100-02-7	4-Nitrophenol	400	U
132-64-9	Dibenzofuran	200	U
121-14-2	2,4-Dinitrotoluene	200	U
84-66-2	Diethylphthalate	200	U
86-73-7	Fluorene	200	U
7005-72-3	4-Chlorophenyl-phenylether	200	U
100-01-6	4-Nitroaniline	400	U
534-52-1	4,6-Dinitro-2-methylphenol	400	U
86-30-6	N-Nitrosodiphenylamine 1	200	U
95-94-3	1,2,4,5-Tetrachlorobenzene	200	U
101-55-3	4-Bromophenyl-phenylether	200	U
118-74-1	Hexachlorobenzene	200	U
1912-24-9	Atrazine	200	U
87-86-5	Pentachlorophenol	400	U
85-01-8	Phenanthrene	200	U
120-12-7	Anthracene	200	U
86-74-8	Carbazole	200	U
84-74-2	Di-n-butylphthalate	200	U
206-44-0	Fluoranthene	200	U
129-00-0	Pyrene	200	U
85-68-7	Butylbenzylphthalate	200	U
91-94-1	3,3'-Dichlorobenzidine	200	U
56-55-3	Benzo(a)anthracene	200	U
218-01-9	Chrysene	200	U
117-81-7	Bis(2-ethylhexyl)phthalate	200	U
117-84-0	Di-n-octylphthalate	200	U
205-99-2	Benzo(b)fluoranthene	200	U
207-08-9	Benzo(k)fluoranthene	200	U
50-32-8	Benzo(a)pyrene	200	U
193-39-5	Indeno(1,2,3-cd)pyrene	200	U
53-70-3	Dibenzo(a,h)anthracene	200	U
191-24-2	Benzo(g,h,i)perylene	200	U
58-90-2	2,3,4,6-Tetrachlorophenol	200	U

(1) Cannot be separated from Diphenylamine

SOM01.2 (6/2007)

1K - FORM I SV-TIC

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E0AB4

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-09B

Sample wt/vol: 30.4 (g/mL) G Lab File ID: S4F4621.D

Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 18 Decanted: (Y/N) N Date Received: 07/25/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/03/2013

GPC Cleanup: (Y/N) Y pH: 7.9 Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	2.837	600	~~J~~ U
02		Unknown-02	2.930	290	~~J~~ U
03		Unknown-03	2.951	450	~~J~~ U
04		Unknown-04	3.013	500	~~J~~ U
05		Unknown-05	3.044	400	~~J~~ U
06		Unknown-06	3.075	100	~~J~~ U
07		Unknown-07	3.623	140	J
08		Unknown-08	3.727	120	J
09		Unknown-09	4.420	100	J
10		Unknown-10	5.135	87	J
11		Unknown-11	5.373	180	J
12		Unknown-12	5.559	110	~~J~~ U
13		Unknown-13	6.749	340	J
14		Unknown-14	8.933	88	J
15		Unknown-15	9.978	120	J
16	80-05-7	Phenol, 4,4'-(1-methylethyli	10.455	290	NJ
17		Unknown-16	11.200	240	J
18	112-84-5	13-Docosenamide, (Z)-	12.814	140	NJ
	E966796[2]	Total Alkanes	N/A		

[2]EPA-designated Registry Number.

CR 8/16/13

SOM01.2 (6/2007)

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AB5

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638

Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1238-10B

Sample wt/vol: 30.4 (g/mL) G

Lab File ID: S4F4622.D

Level: (LOW/MED) LOW

Extraction: (Type) SONC

% Moisture: 23 Decanted: (Y/N) N

Date Received: 07/25/2013

Concentrated Extract Volume: 500 (uL)

Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00

Date Analyzed: 08/03/2013

GPC Cleanup: (Y/N) Y pH: 7.2

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
100-52-7	Benzaldehyde	220	U
108-95-2	Phenol	220	U
111-44-4	Bis(2-chloroethyl)ether	220	U
95-57-8	2-Chlorophenol	220	U
95-48-7	2-Methylphenol	220	U
108-60-1	2,2'-Oxybis(1-chloropropane)	220	U
98-86-2	Acetophenone	220	U
106-44-5	4-Methylphenol	220	U
621-64-7	N-Nitroso-di-n-propylamine	220	U
67-72-1	Hexachloroethane	220	U
98-95-3	Nitrobenzene	220	U
78-59-1	Isophorone	220	U
88-75-5	2-Nitrophenol	220	U
105-67-9	2,4-Dimethylphenol	220	U
111-91-1	Bis(2-chloroethoxy)methane	220	U
120-83-2	2,4-Dichlorophenol	220	U
91-20-3	Naphthalene	220	U
106-47-8	4-Chloroaniline	220	U
87-68-3	Hexachlorobutadiene	220	U
105-60-2	Caprolactam	220	U
59-50-7	4-Chloro-3-methylphenol	220	U
91-57-6	2-Methylnaphthalene	220	U
77-47-4	Hexachlorocyclopentadiene	220	U
88-06-2	2,4,6-Trichlorophenol	220	U
95-95-4	2,4,5-Trichlorophenol	220	U
92-52-4	1,1'-Biphenyl	220	U
91-58-7	2-Chloronaphthalene	220	U
88-74-4	2-Nitroaniline	420	U
131-11-3	Dimethylphthalate	220	U
606-20-2	2,6-Dinitrotoluene	220	U
208-96-8	Acenaphthylene	220	U
99-09-2	3-Nitroaniline	420	U
83-32-9	Acenaphthene	220	U

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AB5

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-10B

Sample wt/vol: 30.4 (g/mL) G Lab File ID: S4F4622.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 23 Decanted: (Y/N) N Date Received: 07/25/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/03/2013

GPC Cleanup: (Y/N) Y pH: 7.2 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
51-28-5	2,4-Dinitrophenol	420	U
100-02-7	4-Nitrophenol	420	U
132-64-9	Dibenzofuran	220	U
121-14-2	2,4-Dinitrotoluene	220	U
84-66-2	Diethylphthalate	220	U
86-73-7	Fluorene	220	U
7005-72-3	4-Chlorophenyl-phenylether	220	U
100-01-6	4-Nitroaniline	420	U
534-52-1	4,6-Dinitro-2-methylphenol	420	U
86-30-6	N-Nitrosodiphenylamine 1	220	U
95-94-3	1,2,4,5-Tetrachlorobenzene	220	U
101-55-3	4-Bromophenyl-phenylether	220	U
118-74-1	Hexachlorobenzene	220	U
1912-24-9	Atrazine	220	U
87-86-5	Pentachlorophenol	420	U
85-01-8	Phenanthrene	220	U
120-12-7	Anthracene	220	U
86-74-8	Carbazole	220	U
84-74-2	Di-n-butylphthalate	220	U
206-44-0	Fluoranthene	220	U
129-00-0	Pyrene	220	U
85-68-7	Butylbenzylphthalate	43	J
91-94-1	3,3'-Dichlorobenzidine	220	U
56-55-3	Benzo(a)anthracene	220	U
218-01-9	Chrysene	220	U
117-81-7	Bis(2-ethylhexyl)phthalate	47	J
117-84-0	Di-n-octylphthalate	220	U
205-99-2	Benzo(b)fluoranthene	220	U
207-08-9	Benzo(k)fluoranthene	220	U
50-32-8	Benzo(a)pyrene	220	U
193-39-5	Indeno(1,2,3-cd)pyrene	220	U
53-70-3	Dibenzo(a,h)anthracene	220	U
191-24-2	Benzo(g,h,i)perylene	220	U
58-90-2	2,3,4,6-Tetrachlorophenol	220	U

(1) Cannot be separated from Diphenylamine

SOM01.2 (6/2007)

1K - FORM I SV-TIC

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E0AB5

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-10B

Sample wt/vol: 30.4 (g/mL) G Lab File ID: S4F4622.D

Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 23 Decanted: (Y/N) N Date Received: 07/25/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/03/2013

GPC Cleanup: (Y/N) Y pH: 7.2 Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	2.837	610	~~J~~ U
02		Unknown-02	2.930	320	~~J~~ U
03		Unknown-03	2.951	400	~~J~~ U
04		Unknown-04	3.023	520	~~J~~ U
05		Unknown-05	3.044	440	~~J~~ U
06		Unknown-06	3.075	94	~~J~~ U
07		Unknown-07	3.623	190	J
08		Unknown-08	3.727	130	J
09		Unknown-09	4.141	100	J
10		Unknown-10	4.420	120	J
11		Unknown-11	5.373	180	J
12		Unknown-12	5.559	100	~~J~~ U
13		Unknown-13	6.760	340	J
14		Unknown-14	9.978	160	J
15		Unknown-15	10.103	87	J
16	80-05-7	Phenol, 4,4'-(1-methylethyli	10.455	170	NJ
17		Unknown-16	11.200	460	J
18	112-84-5	13-Docosenamide, (Z)-	12.814	230	NJ
19		Unknown-17	13.259	110	J
	E966796[2]	Total Alkanes	N/A		

[2]EPA-designated Registry Number.

CM 8/16/13

SOM01.2 (6/2007)

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AB6

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638

Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1238-11B

Sample wt/vol: 30.3 (g/mL) G

Lab File ID: S4F4623.D

Level: (LOW/MED) LOW

Extraction: (Type) SONC

% Moisture: 36 Decanted: (Y/N) N

Date Received: 07/25/2013

Concentrated Extract Volume: 500 (uL)

Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00

Date Analyzed: 08/03/2013

GPC Cleanup: (Y/N) Y pH: 7.3

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
100-52-7	Benzaldehyde	260	U
108-95-2	Phenol	260	U
111-44-4	Bis(2-chloroethyl)ether	260	U
95-57-8	2-Chlorophenol	260	U
95-48-7	2-Methylphenol	260	U
108-60-1	2,2'-Oxybis(1-chloropropane)	260	U
98-86-2	Acetophenone	260	U
106-44-5	4-Methylphenol	260	U
621-64-7	N-Nitroso-di-n-propylamine	260	U
67-72-1	Hexachloroethane	260	U
98-95-3	Nitrobenzene	260	U
78-59-1	Isophorone	260	U
88-75-5	2-Nitrophenol	260	U
105-67-9	2,4-Dimethylphenol	260	U
111-91-1	Bis(2-chloroethoxy)methane	260	U
120-83-2	2,4-Dichlorophenol	260	U
91-20-3	Naphthalene	260	U
106-47-8	4-Chloroaniline	260	U
87-68-3	Hexachlorobutadiene	260	U
105-60-2	Caprolactam	260	U
59-50-7	4-Chloro-3-methylphenol	260	U
91-57-6	2-Methylnaphthalene	260	U
77-47-4	Hexachlorocyclopentadiene	260	U
88-06-2	2,4,6-Trichlorophenol	260	U
95-95-4	2,4,5-Trichlorophenol	260	U
92-52-4	1,1'-Biphenyl	260	U
91-58-7	2-Chloronaphthalene	260	U
88-74-4	2-Nitroaniline	510	U
131-11-3	Dimethylphthalate	260	U
606-20-2	2,6-Dinitrotoluene	260	U
208-96-8	Acenaphthylene	260	U
99-09-2	3-Nitroaniline	510	U
83-32-9	Acenaphthene	260	U

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AB6

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-11B

Sample wt/vol: 30.3 (g/mL) G Lab File ID: S4F4623.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 36 Decanted: (Y/N) N Date Received: 07/25/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/03/2013

GPC Cleanup: (Y/N) Y pH: 7.3 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
51-28-5	2,4-Dinitrophenol	510	U
100-02-7	4-Nitrophenol	510	U
132-64-9	Dibenzofuran	260	U
121-14-2	2,4-Dinitrotoluene	260	U
84-66-2	Diethylphthalate	260	U
86-73-7	Fluorene	260	U
7005-72-3	4-Chlorophenyl-phenylether	260	U
100-01-6	4-Nitroaniline	510	U
534-52-1	4,6-Dinitro-2-methylphenol	510	U
86-30-6	N-Nitrosodiphenylamine 1	260	U
95-94-3	1,2,4,5-Tetrachlorobenzene	260	U
101-55-3	4-Bromophenyl-phenylether	260	U
118-74-1	Hexachlorobenzene	260	U
1912-24-9	Atrazine	260	U
87-86-5	Pentachlorophenol	510	U
85-01-8	Phenanthrene	260	U
120-12-7	Anthracene	260	U
86-74-8	Carbazole	260	U
84-74-2	Di-n-butylphthalate	260	U
206-44-0	Fluoranthene	260	U
129-00-0	Pyrene	260	U
85-68-7	Butylbenzylphthalate	58	J
91-94-1	3,3'-Dichlorobenzidine	260	U
56-55-3	Benzo(a)anthracene	260	U
218-01-9	Chrysene	260	U
117-81-7	Bis(2-ethylhexyl)phthalate	80	J
117-84-0	Di-n-octylphthalate	260	U
205-99-2	Benzo(b)fluoranthene	260	U
207-08-9	Benzo(k)fluoranthene	260	U
50-32-8	Benzo(a)pyrene	260	U
193-39-5	Indeno(1,2,3-cd)pyrene	260	U
53-70-3	Dibenzo(a,h)anthracene	260	U
191-24-2	Benzo(g,h,i)perylene	260	U
58-90-2	2,3,4,6-Tetrachlorophenol	260	U

(1) Cannot be separated from Diphenylamine

SOM01.2 (6/2007)

1K - FORM I SV-TIC

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E0AB6

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM

Case No.: 43638

Mod. Ref No.:

SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1238-11B

Sample wt/vol: 30.3 (g/mL) G

Lab File ID: S4F4623.D

Level: (TRACE or LOW/MED) LOW

Extraction: (Type) SONC

% Moisture: 36

Decanted: (Y/N) N

Date Received: 07/25/2013

Concentrated Extract Volume: 500 (uL)

Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL)

GPC Factor: 2.00

Date Analyzed: 08/03/2013

GPC Cleanup: (Y/N) Y

pH: 7.3

Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	2.837	760	~~J~~ U
02		Unknown-02	2.899	100	~~J~~ U
03		Unknown-03	2.930	390	~~J~~ U
04		Unknown-04	2.951	510	~~J~~ U
05		Unknown-05	3.013	640	~~J~~ U
06		Unknown-06	3.044	570	~~J~~ U
07		Unknown-07	3.075	130	~~J~~ U
08		Unknown-08	3.624	230	J
09		Unknown-09	3.727	190	J
10		Unknown-10	4.421	200	J
11		Unknown-11	5.135	100	J
12		Unknown-12	5.373	250	J
13		Unknown-13	5.559	130	~~J~~ U
14		Unknown-14	6.408	120	J
15		Unknown-15	6.749	450	J
16		Unknown-16	9.979	190	J
17	80-05-7	Phenol, 4,4'-(1-methylethyli	10.455	150	NJ
18		Unknown-17	11.200	370	J
19		Unknown-18	11.303	190	J
20	112-84-5	13-Docosenamide, (Z)-	12.815	410	NJ
21		Unknown-19	18.352	370	J
	E966796[2]	Total Alkanes	N/A		

[2]EPA-designated Registry Number.

OL 8/14/13

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AB7

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-12B

Sample wt/vol: 30.4 (g/mL) G Lab File ID: S4F4624.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 36 Decanted: (Y/N) N Date Received: 07/25/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/03/2013

GPC Cleanup: (Y/N) Y pH: 7.1 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
100-52-7	Benzaldehyde	260	U
108-95-2	Phenol	260	U
111-44-4	Bis(2-chloroethyl)ether	260	U
95-57-8	2-Chlorophenol	260	U
95-48-7	2-Methylphenol	260	U
108-60-1	2,2´-Oxybis(1-chloropropane)	260	U
98-86-2	Acetophenone	260	U
106-44-5	4-Methylphenol	260	U
621-64-7	N-Nitroso-di-n-propylamine	260	U
67-72-1	Hexachloroethane	260	U
98-95-3	Nitrobenzene	260	U
78-59-1	Isophorone	260	U
88-75-5	2-Nitrophenol	260	U
105-67-9	2,4-Dimethylphenol	260	U
111-91-1	Bis(2-chloroethoxy)methane	260	U
120-83-2	2,4-Dichlorophenol	260	U
91-20-3	Naphthalene	260	U
106-47-8	4-Chloroaniline	260	U
87-68-3	Hexachlorobutadiene	260	U
105-60-2	Caprolactam	260	U
59-50-7	4-Chloro-3-methylphenol	260	U
91-57-6	2-Methylnaphthalene	260	U
77-47-4	Hexachlorocyclopentadiene	260	U
88-06-2	2,4,6-Trichlorophenol	260	U
95-95-4	2,4,5-Trichlorophenol	260	U
92-52-4	1,1´-Biphenyl	260	U
91-58-7	2-Chloronaphthalene	260	U
88-74-4	2-Nitroaniline	510	U
131-11-3	Dimethylphthalate	260	U
606-20-2	2,6-Dinitrotoluene	260	U
208-96-8	Acenaphthylene	260	U
99-09-2	3-Nitroaniline	510	U
83-32-9	Acenaphthene	260	U

SOM01.2 (6/2007)

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AB7

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638

Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1238-12B

Sample wt/vol: 30.4 (g/mL) G

Lab File ID: S4F4624.D

Level: (LOW/MED) LOW

Extraction: (Type) SONC

% Moisture: 36 Decanted: (Y/N) N

Date Received: 07/25/2013

Concentrated Extract Volume: 500 (uL)

Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00

Date Analyzed: 08/03/2013

GPC Cleanup: (Y/N) Y pH: 7.1

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
51-28-5	2,4-Dinitrophenol	510	U
100-02-7	4-Nitrophenol	510	U
132-64-9	Dibenzofuran	260	U
121-14-2	2,4-Dinitrotoluene	260	U
84-66-2	Diethylphthalate	260	U
86-73-7	Fluorene	260	U
7005-72-3	4-Chlorophenyl-phenylether	260	U
100-01-6	4-Nitroaniline	510	U
534-52-1	4,6-Dinitro-2-methylphenol	510	U
86-30-6	N-Nitrosodiphenylamine 1	260	U
95-94-3	1,2,4,5-Tetrachlorobenzene	260	U
101-55-3	4-Bromophenyl-phenylether	260	U
118-74-1	Hexachlorobenzene	260	U
1912-24-9	Atrazine	260	U
87-86-5	Pentachlorophenol	510	U
85-01-8	Phenanthrene	260	U
120-12-7	Anthracene	260	U
86-74-8	Carbazole	260	U
84-74-2	Di-n-butylphthalate	260	U
206-44-0	Fluoranthene	260	U
129-00-0	Pyrene	260	U
85-68-7	Butylbenzylphthalate	72	J
91-94-1	3,3'-Dichlorobenzidine	260	U
56-55-3	Benzo(a)anthracene	260	U
218-01-9	Chrysene	260	U
117-81-7	Bis(2-ethylhexyl)phthalate	1500	
117-84-0	Di-n-octylphthalate	260	U
205-99-2	Benzo(b)fluoranthene	260	U
207-08-9	Benzo(k)fluoranthene	260	U
50-32-8	Benzo(a)pyrene	260	U
193-39-5	Indeno(1,2,3-cd)pyrene	260	U
53-70-3	Dibenzo(a,h)anthracene	260	U
191-24-2	Benzo(g,h,i)perylene	260	U
58-90-2	2,3,4,6-Tetrachlorophenol	260	U

(1) Cannot be separated from Diphenylamine

SOM01.2 (6/2007)

1K - FORM I SV-TIC
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
E0AB7

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-12B

Sample wt/vol: 30.4 (g/mL) G Lab File ID: S4F4624.D

Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 36 Decanted: (Y/N) N Date Received: 07/25/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/03/2013

GPC Cleanup: (Y/N) Y pH: 7.1 Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	2.827	810	~~J~~ U
02		Unknown-02	2.930	430	~~J~~ U
03		Unknown-03	2.951	540	~~J~~ U
04		Unknown-04	3.013	500	~~J~~ U
05		Unknown-05	3.044	760	~~J~~ U
06		Unknown-06	3.075	130	~~J~~ U
07		Unknown-07	3.624	320	J
08		Unknown-08	3.727	210	J
09		Unknown-09	3.893	130	J
10		Unknown-10	4.421	290	J
11		Unknown-11	4.700	160	J
12		Unknown-12	5.135	110	J
13		Unknown-13	5.373	290	J
14		Unknown-14	5.559	170	~~J~~ U
15		Unknown-15	6.408	130	J
16		Unknown-16	6.760	520	J
17		Unknown-17	8.892	120	J
18		Unknown-18	10.103	170	J
19		Unknown-19	10.455	150	J
20		Unknown-20	11.200	640	J
21		Unknown-21	11.303	140	J
22		Unknown-22	11.500	130	J
23		Unknown-23	11.717	130	J
24		Unknown-24	12.483	130	J
25		Unknown-25	12.815	510	J
26		Unknown-26	12.939	200	J
27		Unknown-27	14.212	120	J
28		Unknown-28	16.002	310	J
29	58801-23-3	Hop-22(29)-en-3.beta.-ol	16.903	3400	NJ
	E96679[2]	Total Alkanes	N/A	150	J

[2] EPA-designated Registry Number.

CM 8/16/13

SOM01.2 (6/2007)

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AB8

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-13B

Sample wt/vol: 30.4 (g/mL) G Lab File ID: S4F4625.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 23 Decanted: (Y/N) N Date Received: 07/25/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/03/2013

GPC Cleanup: (Y/N) Y pH: 7.5 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
100-52-7	Benzaldehyde	220	U
108-95-2	Phenol	220	U
111-44-4	Bis(2-chloroethyl)ether	220	U
95-57-8	2-Chlorophenol	220	U
95-48-7	2-Methylphenol	220	U
108-60-1	2,2'-Oxybis(1-chloropropane)	220	U
98-86-2	Acetophenone	220	U
106-44-5	4-Methylphenol	220	U
621-64-7	N-Nitroso-di-n-propylamine	220	U
67-72-1	Hexachloroethane	220	U
98-95-3	Nitrobenzene	220	U
78-59-1	Isophorone	220	U
88-75-5	2-Nitrophenol	220	U
105-67-9	2,4-Dimethylphenol	220	U
111-91-1	Bis(2-chloroethoxy)methane	220	U
120-83-2	2,4-Dichlorophenol	220	U
91-20-3	Naphthalene	220	U
106-47-8	4-Chloroaniline	220	U
87-68-3	Hexachlorobutadiene	220	U
105-60-2	Caprolactam	220	U
59-50-7	4-Chloro-3-methylphenol	220	U
91-57-6	2-Methylnaphthalene	220	U
77-47-4	Hexachlorocyclopentadiene	220	U
88-06-2	2,4,6-Trichlorophenol	220	U
95-95-4	2,4,5-Trichlorophenol	220	U
92-52-4	1,1'-Biphenyl	220	U
91-58-7	2-Chloronaphthalene	220	U
88-74-4	2-Nitroaniline	420	U
131-11-3	Dimethylphthalate	220	U
606-20-2	2,6-Dinitrotoluene	220	U
208-96-8	Acenaphthylene	220	U
99-09-2	3-Nitroaniline	420	U
83-32-9	Acenaphthene	220	U

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AB8

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638

Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1238-13B

Sample wt/vol: 30.4 (g/mL) G

Lab File ID: S4F4625.D

Level: (LOW/MED) LOW

Extraction: (Type) SONC

% Moisture: 23 Decanted: (Y/N) N

Date Received: 07/25/2013

Concentrated Extract Volume: 500 (uL)

Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00

Date Analyzed: 08/03/2013

GPC Cleanup: (Y/N) Y pH: 7.5

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
51-28-5	2,4-Dinitrophenol	420	U
100-02-7	4-Nitrophenol	420	U
132-64-9	Dibenzofuran	220	U
121-14-2	2,4-Dinitrotoluene	220	U
84-66-2	Diethylphthalate	220	U
86-73-7	Fluorene	220	U
7005-72-3	4-Chlorophenyl-phenylether	220	U
100-01-6	4-Nitroaniline	420	U
534-52-1	4,6-Dinitro-2-methylphenol	420	U
86-30-6	N-Nitrosodiphenylamine (1)	220	U
95-94-3	1,2,4,5-Tetrachlorobenzene	220	U
101-55-3	4-Bromophenyl-phenylether	220	U
118-74-1	Hexachlorobenzene	220	U
1912-24-9	Atrazine	220	U
87-86-5	Pentachlorophenol	420	U
85-01-8	Phenanthrene	220	U
120-12-7	Anthracene	220	U
86-74-8	Carbazole	220	U
84-74-2	Di-n-butylphthalate	220	U
206-44-0	Fluoranthene	220	U
129-00-0	Pyrene	220	U
85-68-7	Butylbenzylphthalate	65	J
91-94-1	3,3'-Dichlorobenzidine	220	U
56-55-3	Benzo(a)anthracene	220	U
218-01-9	Chrysene	220	U
117-81-7	Bis(2-ethylhexyl)phthalate	73	J
117-84-0	Di-n-octylphthalate	220	U
205-99-2	Benzo(b)fluoranthene	220	U
207-08-9	Benzo(k)fluoranthene	220	U
50-32-8	Benzo(a)pyrene	220	U
193-39-5	Indeno(1,2,3-cd)pyrene	220	U
53-70-3	Dibenzo(a,h)anthracene	220	U
191-24-2	Benzo(g,h,i)perylene	220	U
58-90-2	2,3,4,6-Tetrachlorophenol	220	U

(1) Cannot be separated from Diphenylamine

SOM01.2 (6/2007)

1K - FORM I SV-TIC

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E0AB8

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-13B

Sample wt/vol: 30.4 (g/mL) G Lab File ID: S4F4625.D

Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 23 Decanted: (Y/N) N Date Received: 07/25/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/03/2013

GPC Cleanup: (Y/N) Y pH: 7.5 Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	2.837	710	~~J~~ U
02		Unknown-02	2.930	370	~~J~~ U
03		Unknown-03	2.951	380	~~J~~ U
04		Unknown-04	3.013	570	~~J~~ U
05		Unknown-05	3.044	510	~~J~~ U
06		Unknown-06	3.075	94	~~J~~ U
07		Unknown-07	3.624	190	J
08		Unknown-08	4.420	110	J
09		Unknown-09	5.373	220	J
10		Unknown-10	5.559	140	~~J~~ U
11		Unknown-11	6.749	370	J
12		Unknown-12	9.979	110	J
13		Unknown-13	10.206	100	J
14		Unknown-14	11.200	310	J
15		Unknown-15	11.293	87	J
16		Unknown-16	12.815	320	J
17		Unknown-17	12.939	97	J
18		Unknown-18	16.913	330	J
	E966796[2]	Total Alkanes	N/A		

[2]EPA-designated Registry Number.

CM 8/16/13

SOM01.2 (6/2007)

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AB9

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638

Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1238-14B

Sample wt/vol: 30.6 (g/mL) G

Lab File ID: S4F4626.D

Level: (LOW/MED) LOW

Extraction: (Type) SONC

% Moisture: 26 Decanted: (Y/N) N

Date Received: 07/25/2013

Concentrated Extract Volume: 500 (uL)

Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00

Date Analyzed: 08/04/2013

GPC Cleanup: (Y/N) Y pH: 7.5

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
100-52-7	Benzaldehyde	230	U
108-95-2	Phenol	230	U
111-44-4	Bis(2-chloroethyl)ether	230	U
95-57-8	2-Chlorophenol	230	U
95-48-7	2-Methylphenol	230	U
108-60-1	2,2´-Oxybis(1-chloropropane)	230	U
98-86-2	Acetophenone	230	U
106-44-5	4-Methylphenol	230	U
621-64-7	N-Nitroso-di-n-propylamine	230	U
67-72-1	Hexachloroethane	230	U
98-95-3	Nitrobenzene	230	U
78-59-1	Isophorone	230	U
88-75-5	2-Nitrophenol	230	U
105-67-9	2,4-Dimethylphenol	230	U
111-91-1	Bis(2-chloroethoxy)methane	230	U
120-83-2	2,4-Dichlorophenol	230	U
91-20-3	Naphthalene	230	U
106-47-8	4-Chloroaniline	230	U
87-68-3	Hexachlorobutadiene	230	U
105-60-2	Caprolactam	230	U
59-50-7	4-Chloro-3-methylphenol	230	U
91-57-6	2-Methylnaphthalene	230	U
77-47-4	Hexachlorocyclopentadiene	230	U
88-06-2	2,4,6-Trichlorophenol	230	U
95-95-4	2,4,5-Trichlorophenol	230	U
92-52-4	1,1´-Biphenyl	230	U
91-58-7	2-Chloronaphthalene	230	U
88-74-4	2-Nitroaniline	440	U
131-11-3	Dimethylphthalate	230	U
606-20-2	2,6-Dinitrotoluene	230	U
208-96-8	Acenaphthylene	230	U
99-09-2	3-Nitroaniline	440	U
83-32-9	Acenaphthene	230	U

SOM01.2 (6/2007)

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AB9

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-14B

Sample wt/vol: 30.6 (g/mL) G Lab File ID: S4F4626.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 26 Decanted: (Y/N) N Date Received: 07/25/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/04/2013

GPC Cleanup: (Y/N) Y pH: 7.5 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
51-28-5	2,4-Dinitrophenol	440	U
100-02-7	4-Nitrophenol	440	U
132-64-9	Dibenzofuran	230	U
121-14-2	2,4-Dinitrotoluene	230	U
84-66-2	Diethylphthalate	230	U
86-73-7	Fluorene	230	U
7005-72-3	4-Chlorophenyl-phenylether	230	U
100-01-6	4-Nitroaniline	440	U
534-52-1	4,6-Dinitro-2-methylphenol	440	U
86-30-6	N-Nitrosodiphenylamine 1	230	U
95-94-3	1,2,4,5-Tetrachlorobenzene	230	U
101-55-3	4-Bromophenyl-phenylether	230	U
118-74-1	Hexachlorobenzene	230	U
1912-24-9	Atrazine	230	U
87-86-5	Pentachlorophenol	440	U
85-01-8	Phenanthrene	230	U
120-12-7	Anthracene	230	U
86-74-8	Carbazole	230	U
84-74-2	Di-n-butylphthalate	230	U
206-44-0	Fluoranthene	230	U
129-00-0	Pyrene	230	U
85-68-7	Butylbenzylphthalate	50	J
91-94-1	3,3'-Dichlorobenzidine	230	U
56-55-3	Benzo(a)anthracene	230	U
218-01-9	Chrysene	230	U
117-81-7	Bis(2-ethylhexyl)phthalate	84	J
117-84-0	Di-n-octylphthalate	230	U
205-99-2	Benzo(b)fluoranthene	230	U
207-08-9	Benzo(k)fluoranthene	230	U
50-32-8	Benzo(a)pyrene	230	U
193-39-5	Indeno(1,2,3-cd)pyrene	230	U
53-70-3	Dibenzo(a,h)anthracene	230	U
191-24-2	Benzo(g,h,i)perylene	230	U
58-90-2	2,3,4,6-Tetrachlorophenol	230	U

(1) Cannot be separated from Diphenylamine

SOM01.2 (6/2007)

1K - FORM I SV-TIC
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
E0AB9

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-14B

Sample wt/vol: 30.6 (g/mL) G Lab File ID: S4F4626.D

Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 26 Decanted: (Y/N) N Date Received: 07/25/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/04/2013

GPC Cleanup: (Y/N) Y pH: 7.5 Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	2.837	700	~~J~~ U
02		Unknown-02	2.930	360	~~J~~ U
03		Unknown-03	2.961	350	~~J~~ U
04		Unknown-04	3.013	550	~~J~~ U
05		Unknown-05	3.044	500	~~J~~ U
06		Unknown-06	3.075	100	~~J~~ U
07		Unknown-07	3.623	250	J
08		Unknown-08	3.727	110	J
09		Unknown-09	4.420	320	J
10		Unknown-10	4.700	140	J
11		Unknown-11	5.373	260	J
12		Unknown-12	5.559	160	~~J~~ U
13		Unknown-13	6.408	90	J
14		Unknown-14	6.759	510	J
15		Unknown-15	8.964	140	J
16	111-06-8	Hexadecanoic acid, butyl est	10.413	340	NJ
17	80-05-7	Phenol, 4,4'-(1-methylethyli	10.454	160	NJ
18		Unknown-16	11.200	410	J
19		Unknown-17	11.262	460	J
20	~~593-45-3~~	~~Octadecane~~	~~12.403~~	~~130~~	NJ AK
21		Unknown-18	12.814	440	J
22		Unknown-19	12.939	170	J
23		Unknown-20	13.259	250	J
24		Unknown-21	14.212	120	J
25	1000214-20-7	Stigmasterol, 22,23-dihydro-	16.002	660	NJ
26		Unknown-22	16.509	240	J
27		Unknown-23	16.572	440	J
28		Unknown-24	16.903	510	J
29		Unknown-25	18.352	260	J
	E966796[2]	Total Alkanes	N/A		

[2]EPA-designated Registry Number.

OK 8/14/13

SOM01.2 (6/2007)

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AC0

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-15B

Sample wt/vol: 30.2 (g/mL) G Lab File ID: S4F4627.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 23 Decanted: (Y/N) N Date Received: 07/25/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/04/2013

GPC Cleanup: (Y/N) Y pH: 7.6 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
100-52-7	Benzaldehyde	220	U
108-95-2	Phenol	220	U
111-44-4	Bis(2-chloroethyl)ether	220	U
95-57-8	2-Chlorophenol	220	U
95-48-7	2-Methylphenol	220	U
108-60-1	2,2'-Oxybis(1-chloropropane)	220	U
98-86-2	Acetophenone	220	U
106-44-5	4-Methylphenol	220	U
621-64-7	N-Nitroso-di-n-propylamine	220	U
67-72-1	Hexachloroethane	220	U
98-95-3	Nitrobenzene	220	U
78-59-1	Isophorone	220	U
88-75-5	2-Nitrophenol	220	U
105-67-9	2,4-Dimethylphenol	220	U
111-91-1	Bis(2-chloroethoxy)methane	220	U
120-83-2	2,4-Dichlorophenol	220	U
91-20-3	Naphthalene	220	U
106-47-8	4-Chloroaniline	220	U
87-68-3	Hexachlorobutadiene	220	U
105-60-2	Caprolactam	220	U
59-50-7	4-Chloro-3-methylphenol	220	U
91-57-6	2-Methylnaphthalene	220	U
77-47-4	Hexachlorocyclopentadiene	220	U
88-06-2	2,4,6-Trichlorophenol	220	U
95-95-4	2,4,5-Trichlorophenol	220	U
92-52-4	1,1'-Biphenyl	220	U
91-58-7	2-Chloronaphthalene	220	U
88-74-4	2-Nitroaniline	420	U
131-11-3	Dimethylphthalate	220	U
606-20-2	2,6-Dinitrotoluene	220	U
208-96-8	Acenaphthylene	220	U
99-09-2	3-Nitroaniline	420	U
83-32-9	Acenaphthene	220	U

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AC0

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-15B

Sample wt/vol: 30.2 (g/mL) G Lab File ID: S4F4627.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 23 Decanted: (Y/N) N Date Received: 07/25/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/04/2013

GPC Cleanup: (Y/N) Y pH: 7.6 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
51-28-5	2,4-Dinitrophenol	420	U
100-02-7	4-Nitrophenol	420	U
132-64-9	Dibenzofuran	220	U
121-14-2	2,4-Dinitrotoluene	220	U
84-66-2	Diethylphthalate	220	U
86-73-7	Fluorene	220	U
7005-72-3	4-Chlorophenyl-phenylether	220	U
100-01-6	4-Nitroaniline	420	U
534-52-1	4,6-Dinitro-2-methylphenol	420	U
86-30-6	N-Nitrosodiphenylamine 1	220	U
95-94-3	1,2,4,5-Tetrachlorobenzene	220	U
101-55-3	4-Bromophenyl-phenylether	220	U
118-74-1	Hexachlorobenzene	220	U
1912-24-9	Atrazine	220	U
87-86-5	Pentachlorophenol	420	U
85-01-8	Phenanthrene	220	U
120-12-7	Anthracene	220	U
86-74-8	Carbazole	220	U
84-74-2	Di-n-butylphthalate	220	U
206-44-0	Fluoranthene	220	U
129-00-0	Pyrene	220	U
85-68-7	Butylbenzylphthalate	43	J
91-94-1	3,3'-Dichlorobenzidine	220	U
56-55-3	Benzo(a)anthracene	220	U
218-01-9	Chrysene	220	U
117-81-7	Bis(2-ethylhexyl)phthalate	220	U
117-84-0	Di-n-octylphthalate	220	U
205-99-2	Benzo(b)fluoranthene	220	U
207-08-9	Benzo(k)fluoranthene	220	U
50-32-8	Benzo(a)pyrene	220	U
193-39-5	Indeno(1,2,3-cd)pyrene	220	U
53-70-3	Dibenzo(a,h)anthracene	220	U
191-24-2	Benzo(g,h,i)perylene	220	U
58-90-2	2,3,4,6-Tetrachlorophenol	220	U

(1) Cannot be separated from Diphenylamine

1K - FORM I SV-TIC

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E0AC0

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-15B

Sample wt/vol: 30.2 (g/mL) G Lab File ID: S4F4627.D

Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 23 Decanted: (Y/N) N Date Received: 07/25/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/04/2013

GPC Cleanup: (Y/N) Y pH: 7.6 Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	2.826	610	~~J~~ U
02		Unknown-02	2.930	300	~~J~~ U
03		Unknown-03	2.951	420	~~J~~ U
04		Unknown-04	3.013	580	~~J~~ U
05		Unknown-05	3.044	460	~~J~~ U
06		Unknown-06	3.075	150	~~J~~ U
07		Unknown-07	3.416	230	J
08		Unknown-08	3.623	220	J
09		Unknown-09	3.727	140	J
10		Unknown-10	4.420	90	J
11		Unknown-11	5.373	200	J
12		Unknown-12	5.559	120	~~J~~ U
13		Unknown-13	6.749	400	J
14		Unknown-14	9.968	310	J
15		Unknown-15	10.103	110	J
16	111-06-8	Hexadecanoic acid, butyl est	10.413	200	NJ
17		Unknown-16	10.455	130	J
18	1000130-97-9	E-15-Heptadecenal	10.879	170	NJ
19		Unknown-17	11.262	200	J
20		Unknown-18	11.717	160	J
21		Unknown-19	12.814	140	J
22		Unknown-20	12.939	150	J
23		Unknown-21	18.352	480	J
	E966796 [2]	Total Alkanes	N/A		

[2] EPA-designated Registry Number.

CAL 8/14/13

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AC1

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-16B

Sample wt/vol: 30.3 (g/mL) G Lab File ID: S4F4628.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 17 Decanted: (Y/N) N Date Received: 07/25/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/04/2013

GPC Cleanup: (Y/N) Y pH: 6.9 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
100-52-7	Benzaldehyde	200	U
108-95-2	Phenol	200	U
111-44-4	Bis(2-chloroethyl)ether	200	U
95-57-8	2-Chlorophenol	200	U
95-48-7	2-Methylphenol	200	U
108-60-1	2,2'-Oxybis(1-chloropropane)	200	U
98-86-2	Acetophenone	200	U
106-44-5	4-Methylphenol	200	U
621-64-7	N-Nitroso-di-n-propylamine	200	U
67-72-1	Hexachloroethane	200	U
98-95-3	Nitrobenzene	200	U
78-59-1	Isophorone	200	U
88-75-5	2-Nitrophenol	200	U
105-67-9	2,4-Dimethylphenol	200	U
111-91-1	Bis(2-chloroethoxy)methane	200	U
120-83-2	2,4-Dichlorophenol	200	U
91-20-3	Naphthalene	200	U
106-47-8	4-Chloroaniline	200	U
87-68-3	Hexachlorobutadiene	200	U
105-60-2	Caprolactam	200	U
59-50-7	4-Chloro-3-methylphenol	200	U
91-57-6	2-Methylnaphthalene	200	U
77-47-4	Hexachlorocyclopentadiene	200	U
88-06-2	2,4,6-Trichlorophenol	200	U
95-95-4	2,4,5-Trichlorophenol	200	U
92-52-4	1,1'-Biphenyl	200	U
91-58-7	2-Chloronaphthalene	200	U
88-74-4	2-Nitroaniline	390	U
131-11-3	Dimethylphthalate	200	U
606-20-2	2,6-Dinitrotoluene	200	U
208-96-8	Acenaphthylene	200	U
99-09-2	3-Nitroaniline	390	U
83-32-9	Acenaphthene	200	U

SOM01.2 (6/2007)

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AC1

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-16B

Sample wt/vol: 30.3 (g/mL) G Lab File ID: S4F4628.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 17 Decanted: (Y/N) N Date Received: 07/25/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/04/2013

GPC Cleanup: (Y/N) Y pH: 6.9 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
51-28-5	2,4-Dinitrophenol	390	U
100-02-7	4-Nitrophenol	390	U
132-64-9	Dibenzofuran	200	U
121-14-2	2,4-Dinitrotoluene	200	U
84-66-2	Diethylphthalate	200	U
86-73-7	Fluorene	200	U
7005-72-3	4-Chlorophenyl-phenylether	200	U
100-01-6	4-Nitroaniline	390	U
534-52-1	4,6-Dinitro-2-methylphenol	390	U
86-30-6	N-Nitrosodiphenylamine 1	200	U
95-94-3	1,2,4,5-Tetrachlorobenzene	200	U
101-55-3	4-Bromophenyl-phenylether	200	U
118-74-1	Hexachlorobenzene	200	U
1912-24-9	Atrazine	200	U
87-86-5	Pentachlorophenol	390	U
85-01-8	Phenanthrene	200	U
120-12-7	Anthracene	200	U
86-74-8	Carbazole	200	U
84-74-2	Di-n-butylphthalate	200	U
206-44-0	Fluoranthene	200	U
129-00-0	Pyrene	200	U
85-68-7	Butylbenzylphthalate	45	J
91-94-1	3,3'-Dichlorobenzidine	200	U
56-55-3	Benzo(a)anthracene	200	U
218-01-9	Chrysene	200	U
117-81-7	Bis(2-ethylhexyl)phthalate	70	J
117-84-0	Di-n-octylphthalate	200	U
205-99-2	Benzo(b)fluoranthene	200	U
207-08-9	Benzo(k)fluoranthene	200	U
50-32-8	Benzo(a)pyrene	200	U
193-39-5	Indeno(1,2,3-cd)pyrene	200	U
53-70-3	Dibenzo(a,h)anthracene	200	U
191-24-2	Benzo(g,h,i)perylene	200	U
58-90-2	2,3,4,6-Tetrachlorophenol	200	U

(1) Cannot be separated from Diphenylamine

SOM01.2 (6/2007)

1K - FORM I SV-TIC

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E0AC1

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-16B

Sample wt/vol: 30.3 (g/mL) G Lab File ID: S4F4628.D

Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 17 Decanted: (Y/N) N Date Received: 07/25/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/04/2013

GPC Cleanup: (Y/N) Y pH: 6.9 Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	2.837	620	~~J~~ U
02		Unknown-02	2.930	320	~~J~~ U
03		Unknown-03	2.951	480	~~J~~ U
04		Unknown-04	3.013	530	~~J~~ U
05		Unknown-05	3.044	470	~~J~~ U
06		Unknown-06	3.075	92	~~J~~ U
07		Unknown-07	3.416	130	J
08		Unknown-08	3.623	230	J
09		Unknown-09	3.727	170	J
10		Unknown-10	4.420	91	J
11		Unknown-11	5.373	200	J
12		Unknown-12	5.559	130	~~J~~ U
13		Unknown-13	6.408	120	J
14		Unknown-14	6.760	410	J
15		Unknown-15	7.080	96	J
16		Unknown-16	9.979	280	J
17		Unknown-17	10.103	100	J
18		Unknown-18	10.217	84	J
19	111-06-8	Hexadecanoic acid, butyl est	10.413	260	NJ
20	80-05-7	Phenol, 4,4'-(1-methylethyli	10.455	160	NJ
21		Unknown-19	11.200	180	J
22	646-13-9	Octadecanoic acid, 2-methylp	11.272	210	NJ
23		Unknown-20	11.728	87	J
24		Unknown-21	12.814	140	J
25		Unknown-22	12.939	140	J
	E966796[2]	Total Alkanes	N/A		

[2]EPA-designated Registry Number.

on sheet 3

SOM01.2 (6/2007)

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AC2

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-17B

Sample wt/vol: 30.7 (g/mL) G Lab File ID: S4F4629.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 17 Decanted: (Y/N) N Date Received: 07/25/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/04/2013

GPC Cleanup: (Y/N) Y pH: 7.6 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
100-52-7	Benzaldehyde	200	U
108-95-2	Phenol	200	U
111-44-4	Bis(2-chloroethyl)ether	200	U
95-57-8	2-Chlorophenol	200	U
95-48-7	2-Methylphenol	200	U
108-60-1	2,2'-Oxybis(1-chloropropane)	200	U
98-86-2	Acetophenone	200	U
106-44-5	4-Methylphenol	200	U
621-64-7	N-Nitroso-di-n-propylamine	200	U
67-72-1	Hexachloroethane	200	U
98-95-3	Nitrobenzene	200	U
78-59-1	Isophorone	200	U
88-75-5	2-Nitrophenol	200	U
105-67-9	2,4-Dimethylphenol	200	U
111-91-1	Bis(2-chloroethoxy)methane	200	U
120-83-2	2,4-Dichlorophenol	200	U
91-20-3	Naphthalene	200	U
106-47-8	4-Chloroaniline	200	U
87-68-3	Hexachlorobutadiene	200	U
105-60-2	Caprolactam	200	U
59-50-7	4-Chloro-3-methylphenol	200	U
91-57-6	2-Methylnaphthalene	200	U
77-47-4	Hexachlorocyclopentadiene	200	U
88-06-2	2,4,6-Trichlorophenol	200	U
95-95-4	2,4,5-Trichlorophenol	200	U
92-52-4	1,1'-Biphenyl	200	U
91-58-7	2-Chloronaphthalene	200	U
88-74-4	2-Nitroaniline	390	U
131-11-3	Dimethylphthalate	200	U
606-20-2	2,6-Dinitrotoluene	200	U
208-96-8	Acenaphthylene	200	U
99-09-2	3-Nitroaniline	390	U
83-32-9	Acenaphthene	200	U

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AC2

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638

Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1238-17B

Sample wt/vol: 30.7 (g/mL) G

Lab File ID: S4F4629.D

Level: (LOW/MED) LOW

Extraction: (Type) SONC

% Moisture: 17 Decanted: (Y/N) N

Date Received: 07/25/2013

Concentrated Extract Volume: 500 (uL)

Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00

Date Analyzed: 08/04/2013

GPC Cleanup: (Y/N) Y pH: 7.6

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
51-28-5	2,4-Dinitrophenol	390	U
100-02-7	4-Nitrophenol	390	U
132-64-9	Dibenzofuran	200	U
121-14-2	2,4-Dinitrotoluene	200	U
84-66-2	Diethylphthalate	200	U
86-73-7	Fluorene	200	U
7005-72-3	4-Chlorophenyl-phenylether	200	U
100-01-6	4-Nitroaniline	390	U
534-52-1	4,6-Dinitro-2-methylphenol	390	U
86-30-6	N-Nitrosodiphenylamine (1)	200	U
95-94-3	1,2,4,5-Tetrachlorobenzene	200	U
101-55-3	4-Bromophenyl-phenylether	200	U
118-74-1	Hexachlorobenzene	200	U
1912-24-9	Atrazine	200	U
87-86-5	Pentachlorophenol	390	U
85-01-8	Phenanthrene	200	U
120-12-7	Anthracene	200	U
86-74-8	Carbazole	200	U
84-74-2	Di-n-butylphthalate	200	U
206-44-0	Fluoranthene	200	U
129-00-0	Pyrene	200	U
85-68-7	Butylbenzylphthalate	50	J
91-94-1	3,3'-Dichlorobenzidine	200	U
56-55-3	Benzo(a)anthracene	200	U
218-01-9	Chrysene	200	U
117-81-7	Bis(2-ethylhexyl)phthalate	290	
117-84-0	Di-n-octylphthalate	200	U
205-99-2	Benzo(b)fluoranthene	200	U
207-08-9	Benzo(k)fluoranthene	200	U
50-32-8	Benzo(a)pyrene	200	U
193-39-5	Indeno(1,2,3-cd)pyrene	200	U
53-70-3	Dibenzo(a,h)anthracene	200	U
191-24-2	Benzo(g,h,i)perylene	200	U
58-90-2	2,3,4,6-Tetrachlorophenol	200	U

(1) Cannot be separated from Diphenylamine

SOM01.2 (6/2007)

1K - FORM I SV-TIC
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
E0AC2

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-17B

Sample wt/vol: 30.7 (g/mL) G Lab File ID: S4F4629.D

Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 17 Decanted: (Y/N) N Date Received: 07/25/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/04/2013

GPC Cleanup: (Y/N) Y pH: 7.6 Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	2.837	680	~~J~~ U
02		Unknown-02	2.930	340	~~J~~ U
03		Unknown-03	2.951	520	~~J~~ U
04		Unknown-04	3.023	520	~~J~~ U
05		Unknown-05	3.044	480	~~J~~ U
06		Unknown-06	3.075	130	~~J~~ U
07		Unknown-07	3.623	140	J
08		Unknown-08	4.420	190	J
09		Unknown-09	4.700	87	J
10		Unknown-10	5.373	270	J
11		Unknown-11	5.559	130	~~J~~ U
12		Unknown-12	6.397	82	J
13		Unknown-13	6.760	440	J
14		Unknown-14	10.403	81	J
15		Unknown-15	11.200	330	J
16	112-84-5	13-Docosenamide, (Z)-	12.814	300	NJ
17		Unknown-16	12.939	92	J
	E966796[2]	Total Alkanes	N/A		

[2]EPA-designated Registry Number.

CR 8/16/13

SOM01.2 (6/2007)

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AC3

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-18B

Sample wt/vol: 30.7 (g/mL) G Lab File ID: S4F4630.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 22 Decanted: (Y/N) N Date Received: 07/26/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/04/2013

GPC Cleanup: (Y/N) Y pH: 7.7 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
100-52-7	Benzaldehyde	210	U
108-95-2	Phenol	210	U
111-44-4	Bis(2-chloroethyl)ether	210	U
95-57-8	2-Chlorophenol	210	U
95-48-7	2-Methylphenol	210	U
108-60-1	2,2'-Oxybis(1-chloropropane)	210	U
98-86-2	Acetophenone	210	U
106-44-5	4-Methylphenol	210	U
621-64-7	N-Nitroso-di-n-propylamine	210	U
67-72-1	Hexachloroethane	210	U
98-95-3	Nitrobenzene	210	U
78-59-1	Isophorone	210	U
88-75-5	2-Nitrophenol	210	U
105-67-9	2,4-Dimethylphenol	210	U
111-91-1	Bis(2-chloroethoxy)methane	210	U
120-83-2	2,4-Dichlorophenol	210	U
91-20-3	Naphthalene	210	U
106-47-8	4-Chloroaniline	210	U
87-68-3	Hexachlorobutadiene	210	U
105-60-2	Caprolactam	210	U
59-50-7	4-Chloro-3-methylphenol	210	U
91-57-6	2-Methylnaphthalene	210	U
77-47-4	Hexachlorocyclopentadiene	210	U
88-06-2	2,4,6-Trichlorophenol	210	U
95-95-4	2,4,5-Trichlorophenol	210	U
92-52-4	1,1'-Biphenyl	210	U
91-58-7	2-Chloronaphthalene	210	U
88-74-4	2-Nitroaniline	410	U
131-11-3	Dimethylphthalate	210	U
606-20-2	2,6-Dinitrotoluene	210	U
208-96-8	Acenaphthylene	210	U
99-09-2	3-Nitroaniline	410	U
83-32-9	Acenaphthene	210	U

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AC3

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-18B

Sample wt/vol: 30.7 (g/mL) G Lab File ID: S4F4630.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 22 Decanted: (Y/N) N Date Received: 07/26/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/04/2013

GPC Cleanup: (Y/N) Y pH: 7.7 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
51-28-5	2,4-Dinitrophenol	410	U
100-02-7	4-Nitrophenol	410	U
132-64-9	Dibenzofuran	210	U
121-14-2	2,4-Dinitrotoluene	210	U
84-66-2	Diethylphthalate	210	U
86-73-7	Fluorene	210	U
7005-72-3	4-Chlorophenyl-phenylether	210	U
100-01-6	4-Nitroaniline	410	U
534-52-1	4,6-Dinitro-2-methylphenol	410	U
86-30-6	N-Nitrosodiphenylamine [1]	210	U
95-94-3	1,2,4,5-Tetrachlorobenzene	210	U
101-55-3	4-Bromophenyl-phenylether	210	U
118-74-1	Hexachlorobenzene	210	U
1912-24-9	Atrazine	210	U
87-86-5	Pentachlorophenol	410	U
85-01-8	Phenanthrene	210	U
120-12-7	Anthracene	210	U
86-74-8	Carbazole	210	U
84-74-2	Di-n-butylphthalate	45	J
206-44-0	Fluoranthene	210	U
129-00-0	Pyrene	210	U
85-68-7	Butylbenzylphthalate	62	J
91-94-1	3,3'-Dichlorobenzidine	210	U
56-55-3	Benzo(a)anthracene	210	U
218-01-9	Chrysene	210	U
117-81-7	Bis(2-ethylhexyl)phthalate	160	J
117-84-0	Di-n-octylphthalate	210	U
205-99-2	Benzo(b)fluoranthene	210	U
207-08-9	Benzo(k)fluoranthene	210	U
50-32-8	Benzo(a)pyrene	210	U
193-39-5	Indeno(1,2,3-cd)pyrene	210	U
53-70-3	Dibenzo(a,h)anthracene	210	U
191-24-2	Benzo(g,h,i)perylene	210	U
58-90-2	2,3,4,6-Tetrachlorophenol	210	U

(1) Cannot be separated from Diphenylamine

SOM01.2 (6/2007)

1K - FORM I SV-TIC

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E0AC3

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-18B

Sample wt/vol: 30.7 (g/mL) G Lab File ID: S4F4630.D

Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 22 Decanted: (Y/N) N Date Received: 07/26/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/04/2013

GPC Cleanup: (Y/N) Y pH: 7.7 Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	2.826	850	~~J~~ U
02		Unknown-02	2.930	400	~~J~~ U
03		Unknown-03	2.951	740	~~J~~ U
04		Unknown-04	3.013	740	~~J~~ U
05		Unknown-05	3.044	590	~~J~~ U
06		Unknown-06	3.075	100	~~J~~ U
07		Unknown-07	3.623	290	J
08		Unknown-08	3.727	150	J
09		Unknown-09	4.420	250	J
10		Unknown-10	4.700	120	J
11		Unknown-11	5.373	300	J
12		Unknown-12	5.559	180	~~J~~ U
13		Unknown-13	6.760	440	J
14	143-07-7	Dodecanoic acid	7.143	98	NJ
15		Unknown-14	10.217	100	J
16		Unknown-15	11.200	420	J
17		Unknown-16	11.500	100	J
18		Unknown-17	12.814	540	J
19		Unknown-18	12.939	140	J
	E966796[2]	Total Alkanes	N/A		

[2] EPA-designated Registry Number.

SOM01.2 (6/2007)

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AC4

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-19B

Sample wt/vol: 30.6 (g/mL) G Lab File ID: S4F4631.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 23 Decanted: (Y/N) N Date Received: 07/26/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/04/2013

GPC Cleanup: (Y/N) Y pH: 7.6 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
100-52-7	Benzaldehyde	220	U
108-95-2	Phenol	220	U
111-44-4	Bis(2-chloroethyl)ether	220	U
95-57-8	2-Chlorophenol	220	U
95-48-7	2-Methylphenol	220	U
108-60-1	2,2´-Oxybis(1-chloropropane)	220	U
98-86-2	Acetophenone	220	U
106-44-5	4-Methylphenol	220	U
621-64-7	N-Nitroso-di-n-propylamine	220	U
67-72-1	Hexachloroethane	220	U
98-95-3	Nitrobenzene	220	U
78-59-1	Isophorone	220	U
88-75-5	2-Nitrophenol	220	U
105-67-9	2,4-Dimethylphenol	220	U
111-91-1	Bis(2-chloroethoxy)methane	220	U
120-83-2	2,4-Dichlorophenol	220	U
91-20-3	Naphthalene	220	U
106-47-8	4-Chloroaniline	220	U
87-68-3	Hexachlorobutadiene	220	U
105-60-2	Caprolactam	220	U
59-50-7	4-Chloro-3-methylphenol	220	U
91-57-6	2-Methylnaphthalene	220	U
77-47-4	Hexachlorocyclopentadiene	220	U
88-06-2	2,4,6-Trichlorophenol	220	U
95-95-4	2,4,5-Trichlorophenol	220	U
92-52-4	1,1´-Biphenyl	220	U
91-58-7	2-Chloronaphthalene	220	U
88-74-4	2-Nitroaniline	420	U
131-11-3	Dimethylphthalate	220	U
606-20-2	2,6-Dinitrotoluene	220	U
208-96-8	Acenaphthylene	220	U
99-09-2	3-Nitroaniline	420	U
83-32-9	Acenaphthene	220	U

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AC4

Lab Name: MITKEM LABORATORIES

Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638

Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: M1238-19B

Sample wt/vol: 30.6 (g/mL) G

Lab File ID: S4F4631.D

Level: (LOW/MED) LOW

Extraction: (Type) SONC

% Moisture: 23 Decanted: (Y/N) N

Date Received: 07/26/2013

Concentrated Extract Volume: 500 (uL)

Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00

Date Analyzed: 08/04/2013

GPC Cleanup: (Y/N) Y pH: 7.6

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
51-28-5	2,4-Dinitrophenol	420	U
100-02-7	4-Nitrophenol	420	U
132-64-9	Dibenzofuran	220	U
121-14-2	2,4-Dinitrotoluene	220	U
84-66-2	Diethylphthalate	220	U
86-73-7	Fluorene	220	U
7005-72-3	4-Chlorophenyl-phenylether	220	U
100-01-6	4-Nitroaniline	420	U
534-52-1	4,6-Dinitro-2-methylphenol	420	U
86-30-6	N-Nitrosodiphenylamine 1	220	U
95-94-3	1,2,4,5-Tetrachlorobenzene	220	U
101-55-3	4-Bromophenyl-phenylether	220	U
118-74-1	Hexachlorobenzene	220	U
1912-24-9	Atrazine	220	U
87-86-5	Pentachlorophenol	420	U
85-01-8	Phenanthrene	220	U
120-12-7	Anthracene	220	U
86-74-8	Carbazole	220	U
84-74-2	Di-n-butylphthalate	43	J
206-44-0	Fluoranthene	220	U
129-00-0	Pyrene	220	U
85-68-7	Butylbenzylphthalate	51	J
91-94-1	3,3'-Dichlorobenzidine	220	U
56-55-3	Benzo(a)anthracene	220	U
218-01-9	Chrysene	220	U
117-81-7	Bis(2-ethylhexyl)phthalate	130	J
117-84-0	Di-n-octylphthalate	220	U
205-99-2	Benzo(b)fluoranthene	220	U
207-08-9	Benzo(k)fluoranthene	220	U
50-32-8	Benzo(a)pyrene	220	U
193-39-5	Indeno(1,2,3-cd)pyrene	220	U
53-70-3	Dibenzo(a,h)anthracene	220	U
191-24-2	Benzo(g,h,i)perylene	220	U
58-90-2	2,3,4,6-Tetrachlorophenol	220	U

(1) Cannot be separated from Diphenylamine

SOM01.2 (6/2007)

1K - FORM I SV-TIC

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E0AC4

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-19B

Sample wt/vol: 30.6 (g/mL) G Lab File ID: S4F4631.D

Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 23 Decanted: (Y/N) N Date Received: 07/26/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/04/2013

GPC Cleanup: (Y/N) Y pH: 7.6 Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	2.826	850	~~J~~ U
02		Unknown-02	2.930	420	~~J~~ U
03		Unknown-03	2.951	410	~~J~~ U
04		Unknown-04	3.013	740	~~J~~ U
05		Unknown-05	3.044	610	~~J~~ U
06		Unknown-06	3.075	130	~~J~~ U
07		Unknown-07	3.416	120	J
08		Unknown-08	3.623	180	J
09		Unknown-09	3.727	140	J
10		Unknown-10	4.420	120	J
11		Unknown-11	5.373	210	J
12		Unknown-12	5.559	120	~~J~~ U
13		Unknown-13	6.759	330	J
14		Unknown-14	7.422	150	J
15		Unknown-15	8.892	110	J
16		Unknown-16	10.216	100	J
17		Unknown-17	11.200	270	J
18		Unknown-18	12.814	320	J
19		Unknown-19	12.939	140	J
	E966796[2]	Total Alkanes	N/A		

[2] EPA-designated Registry Number.

CR 8/16/13

SOM01.2 (6/2007)

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AC5

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-20B

Sample wt/vol: 30.3 (g/mL) G Lab File ID: S4F4632.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 17 Decanted: (Y/N) N Date Received: 07/26/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/04/2013

GPC Cleanup: (Y/N) Y pH: 7.6 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
100-52-7	Benzaldehyde	200	U
108-95-2	Phenol	200	U
111-44-4	Bis(2-chloroethyl)ether	200	U
95-57-8	2-Chlorophenol	200	U
95-48-7	2-Methylphenol	200	U
108-60-1	2,2´-Oxybis(1-chloropropane)	200	U
98-86-2	Acetophenone	200	U
106-44-5	4-Methylphenol	200	U
621-64-7	N-Nitroso-di-n-propylamine	200	U
67-72-1	Hexachloroethane	200	U
98-95-3	Nitrobenzene	200	U
78-59-1	Isophorone	200	U
88-75-5	2-Nitrophenol	200	U
105-67-9	2,4-Dimethylphenol	200	U
111-91-1	Bis(2-chloroethoxy)methane	200	U
120-83-2	2,4-Dichlorophenol	200	U
91-20-3	Naphthalene	200	U
106-47-8	4-Chloroaniline	200	U
87-68-3	Hexachlorobutadiene	200	U
105-60-2	Caprolactam	200	U
59-50-7	4-Chloro-3-methylphenol	200	U
91-57-6	2-Methylnaphthalene	200	U
77-47-4	Hexachlorocyclopentadiene	200	U
88-06-2	2,4,6-Trichlorophenol	200	U
95-95-4	2,4,5-Trichlorophenol	200	U
92-52-4	1,1´-Biphenyl	200	U
91-58-7	2-Chloronaphthalene	200	U
88-74-4	2-Nitroaniline	390	U
131-11-3	Dimethylphthalate	200	U
606-20-2	2,6-Dinitrotoluene	200	U
208-96-8	Acenaphthylene	200	U
99-09-2	3-Nitroaniline	390	U
83-32-9	Acenaphthene	200	U

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0AC5

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-20B

Sample wt/vol: 30.3 (g/mL) G Lab File ID: S4F4632.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 17 Decanted: (Y/N) N Date Received: 07/26/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/04/2013

GPC Cleanup: (Y/N) Y pH: 7.6 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
51-28-5	2,4-Dinitrophenol	390	U
100-02-7	4-Nitrophenol	390	U
132-64-9	Dibenzofuran	200	U
121-14-2	2,4-Dinitrotoluene	200	U
84-66-2	Diethylphthalate	200	U
86-73-7	Fluorene	200	U
7005-72-3	4-Chlorophenyl-phenylether	200	U
100-01-6	4-Nitroaniline	390	U
534-52-1	4,6-Dinitro-2-methylphenol	390	U
86-30-6	N-Nitrosodiphenylamine 1	200	U
95-94-3	1,2,4,5-Tetrachlorobenzene	200	U
101-55-3	4-Bromophenyl-phenylether	200	U
118-74-1	Hexachlorobenzene	200	U
1912-24-9	Atrazine	200	U
87-86-5	Pentachlorophenol	390	U
85-01-8	Phenanthrene	200	U
120-12-7	Anthracene	200	U
86-74-8	Carbazole	200	U
84-74-2	Di-n-butylphthalate	200	U
206-44-0	Fluoranthene	200	U
129-00-0	Pyrene	200	U
85-68-7	Butylbenzylphthalate	48	J
91-94-1	3,3'-Dichlorobenzidine	200	U
56-55-3	Benzo(a)anthracene	200	U
218-01-9	Chrysene	200	U
117-81-7	Bis(2-ethylhexyl)phthalate	120	J
117-84-0	Di-n-octylphthalate	200	U
205-99-2	Benzo(b)fluoranthene	200	U
207-08-9	Benzo(k)fluoranthene	200	U
50-32-8	Benzo(a)pyrene	200	U
193-39-5	Indeno(1,2,3-cd)pyrene	200	U
53-70-3	Dibenzo(a,h)anthracene	200	U
191-24-2	Benzo(g,h,i)perylene	200	U
58-90-2	2,3,4,6-Tetrachlorophenol	200	U

(1) Cannot be separated from Diphenylamine

1K - FORM I SV-TIC
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
E0AC5

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1238-20B

Sample wt/vol: 30.3 (g/mL) G Lab File ID: S4F4632.D

Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 17 Decanted: (Y/N) N Date Received: 07/26/2013

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/04/2013

GPC Cleanup: (Y/N) Y pH: 7.6 Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	2.837	860	~~J~~ U
02		Unknown-02	2.930	410	~~J~~ U
03		Unknown-03	2.961	530	~~J~~ U
04		Unknown-04	3.023	720	~~J~~ U
05		Unknown-05	3.044	630	~~J~~ U
06		Unknown-06	3.075	100	~~J~~ U
07		Unknown-07	3.623	320	J
08		Unknown-08	3.727	140	J
09		Unknown-09	4.079	85	J
10		Unknown-10	4.420	130	J
11		Unknown-11	5.373	190	J
12		Unknown-12	5.559	160	~~J~~ U
13		Unknown-13	6.397	120	J
14		Unknown-14	6.749	280	J
15		Unknown-15	11.200	290	J
16		Unknown-16	12.814	310	J
17		Unknown-17	12.939	150	J
	E966796[2]	Total Alkanes	N/A		

[2]EPA-designated Registry Number.

CM 8/14/13

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK4R

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: MB-73021

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S4F4610.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: Decanted: (Y/N) Date Received:

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/03/2013

GPC Cleanup: (Y/N) Y pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
100-52-7	Benzaldehyde	170	U
108-95-2	Phenol	170	U
111-44-4	Bis(2-chloroethyl)ether	170	U
95-57-8	2-Chlorophenol	170	U
95-48-7	2-Methylphenol	170	U
108-60-1	2,2'-Oxybis(1-chloropropane)	170	U
98-86-2	Acetophenone	170	U
106-44-5	4-Methylphenol	170	U
621-64-7	N-Nitroso-di-n-propylamine	170	U
67-72-1	Hexachloroethane	170	U
98-95-3	Nitrobenzene	170	U
78-59-1	Isophorone	170	U
88-75-5	2-Nitrophenol	170	U
105-67-9	2,4-Dimethylphenol	170	U
111-91-1	Bis(2-chloroethoxy)methane	170	U
120-83-2	2,4-Dichlorophenol	170	U
91-20-3	Naphthalene	170	U
106-47-8	4-Chloroaniline	170	U
87-68-3	Hexachlorobutadiene	170	U
105-60-2	Caprolactam	170	U
59-50-7	4-Chloro-3-methylphenol	170	U
91-57-6	2-Methylnaphthalene	170	U
77-47-4	Hexachlorocyclopentadiene	170	U
88-06-2	2,4,6-Trichlorophenol	170	U
95-95-4	2,4,5-Trichlorophenol	170	U
92-52-4	1,1'-Biphenyl	170	U
91-58-7	2-Chloronaphthalene	170	U
88-74-4	2-Nitroaniline	330	U
131-11-3	Dimethylphthalate	170	U
606-20-2	2,6-Dinitrotoluene	170	U
208-96-8	Acenaphthylene	170	U
99-09-2	3-Nitroaniline	330	U
83-32-9	Acenaphthene	170	U

SOM01.2 (6/2007)

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK4R

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: MB-73021

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S4F4610.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: Decanted: (Y/N) Date Received:

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/03/2013

GPC Cleanup: (Y/N) Y pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
51-28-5	2,4-Dinitrophenol	330	U
100-02-7	4-Nitrophenol	330	U
132-64-9	Dibenzofuran	170	U
121-14-2	2,4-Dinitrotoluene	170	U
84-66-2	Diethylphthalate	170	U
86-73-7	Fluorene	170	U
7005-72-3	4-Chlorophenyl-phenylether	170	U
100-01-6	4-Nitroaniline	330	U
534-52-1	4,6-Dinitro-2-methylphenol	330	U
86-30-6	N-Nitrosodiphenylamine 1	170	U
95-94-3	1,2,4,5-Tetrachlorobenzene	170	U
101-55-3	4-Bromophenyl-phenylether	170	U
118-74-1	Hexachlorobenzene	170	U
1912-24-9	Atrazine	170	U
87-86-5	Pentachlorophenol	330	U
85-01-8	Phenanthrene	170	U
120-12-7	Anthracene	170	U
86-74-8	Carbazole	170	U
84-74-2	Di-n-butylphthalate	170	U
206-44-0	Fluoranthene	170	U
129-00-0	Pyrene	170	U
85-68-7	Butylbenzylphthalate	170	U
91-94-1	3,3'-Dichlorobenzidine	170	U
56-55-3	Benzo(a)anthracene	170	U
218-01-9	Chrysene	170	U
117-81-7	Bis(2-ethylhexyl)phthalate	170	U
117-84-0	Di-n-octylphthalate	170	U
205-99-2	Benzo(b)fluoranthene	170	U
207-08-9	Benzo(k)fluoranthene	170	U
50-32-8	Benzo(a)pyrene	170	U
193-39-5	Indeno(1,2,3-cd)pyrene	170	U
53-70-3	Dibenzo(a,h)anthracene	170	U
191-24-2	Benzo(g,h,i)perylene	170	U
58-90-2	2,3,4,6-Tetrachlorophenol	170	U

(1) Cannot be separated from Diphenylamine

1K - FORM I SV-TIC

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK4R

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 43638 Mod. Ref No.: SDG No.: E0AA5

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: MB-73021

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S4F4610.D

Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC

% Moisture: Decanted: (Y/N) Date Received:

Concentrated Extract Volume: 500 (uL) Date Extracted: 08/02/2013

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 08/03/2013

GPC Cleanup: (Y/N) Y pH: Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	2.827	710	J
02		Unknown-02	2.899	110	J
03		Unknown-03	2.930	300	J
04		Unknown-04	2.951	170	J
05		Unknown-05	3.013	450	J
06		Unknown-06	3.044	620	J
07		Unknown-07	3.075	68	J
08		Unknown-08	3.913	120	J
09		Unknown-09	5.559	360	J
	E966796[2]	Total Alkanes	N/A		

[2]EPA-designated Registry Number.

SOM01.2 (6/2007)

Data File: \\Avogadro\Organics\S4.I\130803.B\S4F4613.D

Date : 03-AUG-2013 18:48

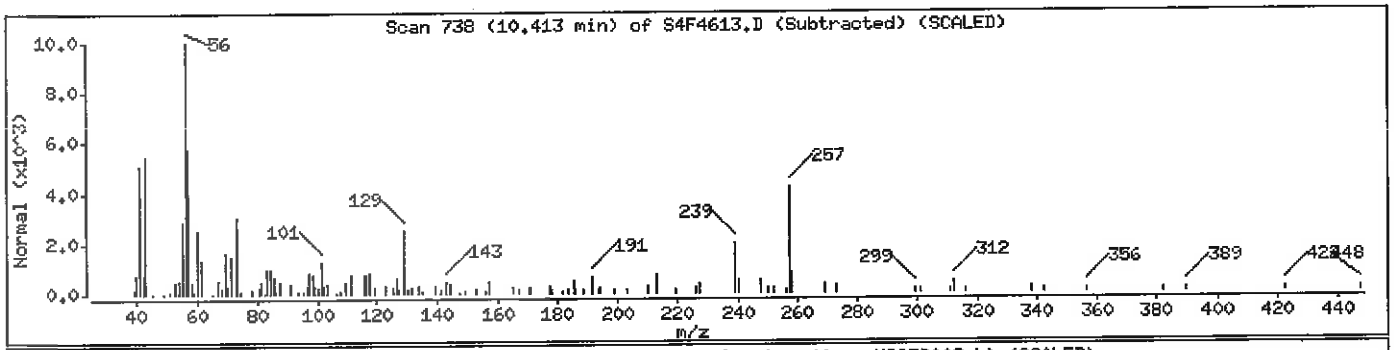
Client ID: E0AA8 Instrument: S4.i

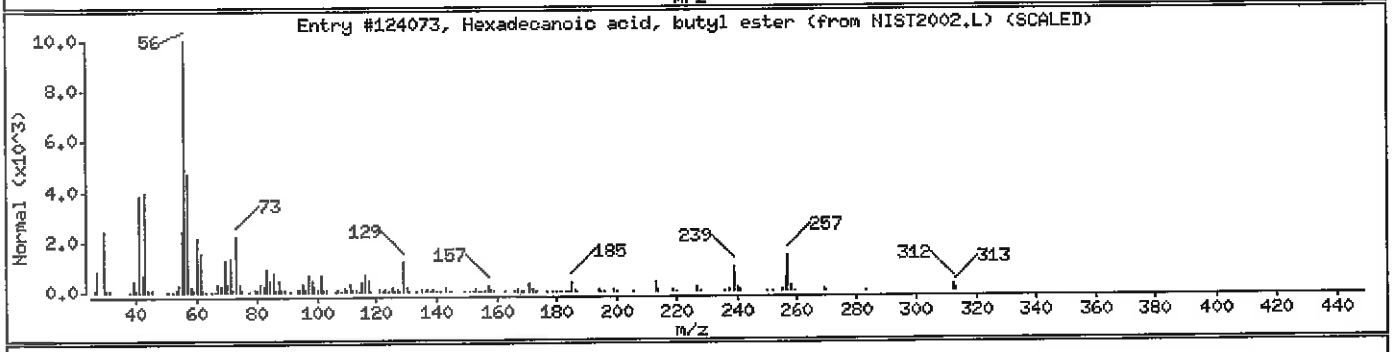
Sample Info: M1238-03B,,73021,,

Volume Injected (uL): 2.0 Operator: CLM SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Hexadecanoic acid, butyl ester	111-06-8	NIST2002.L	124073	86	C20H40O2	312





Data File: \\Avogadro\Organics\S4.I\130803.B\S4F4617.D

Date : 03-AUG-2013 20:27

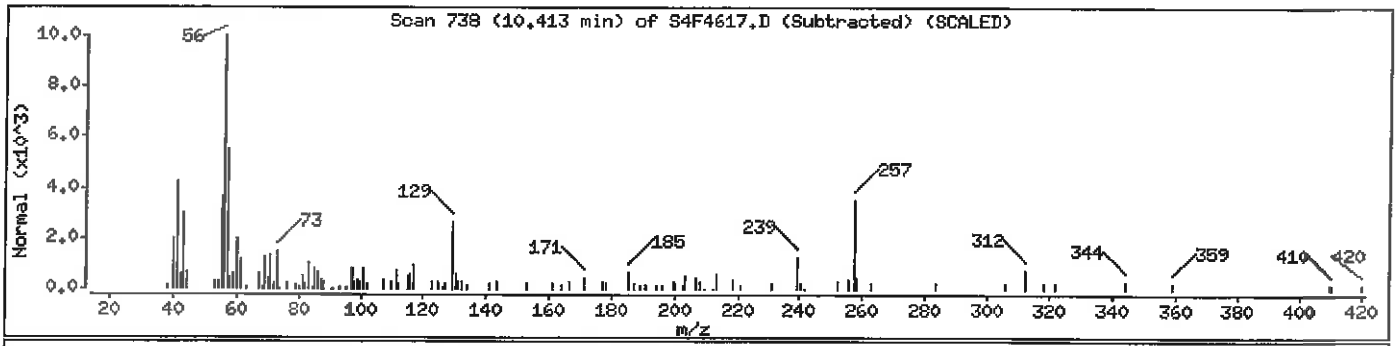
Client ID: EOAB2 Instrument: S4.i

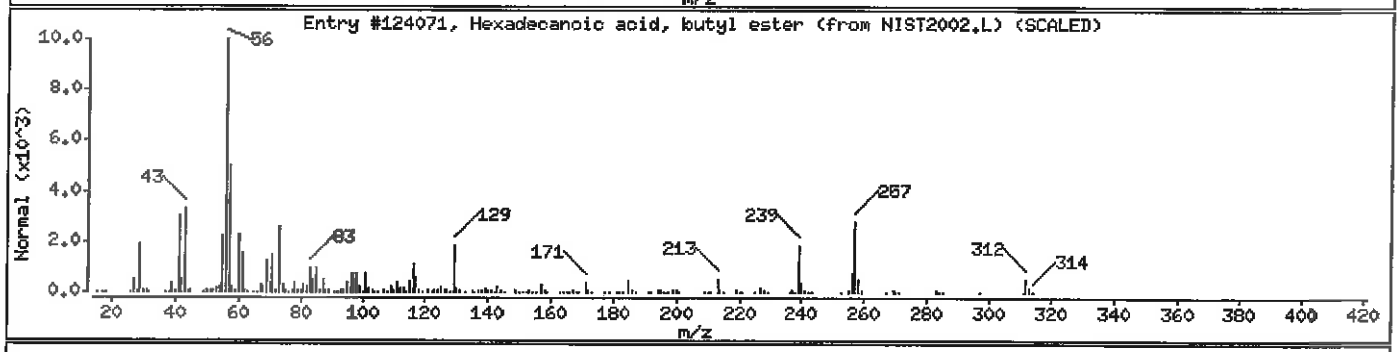
Sample Info: M1238-07B,,73021,,

Volume Injected (uL): 2.0 Operator: CLM SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Hexadecanoic acid, butyl ester	111-06-8	NIST2002.L	124071	87	C20H40O2	312





Data File: \\Avogadro\Organics\S4.I\130803.B\S4F4626.D

Date : 04-AUG-2013 00:13

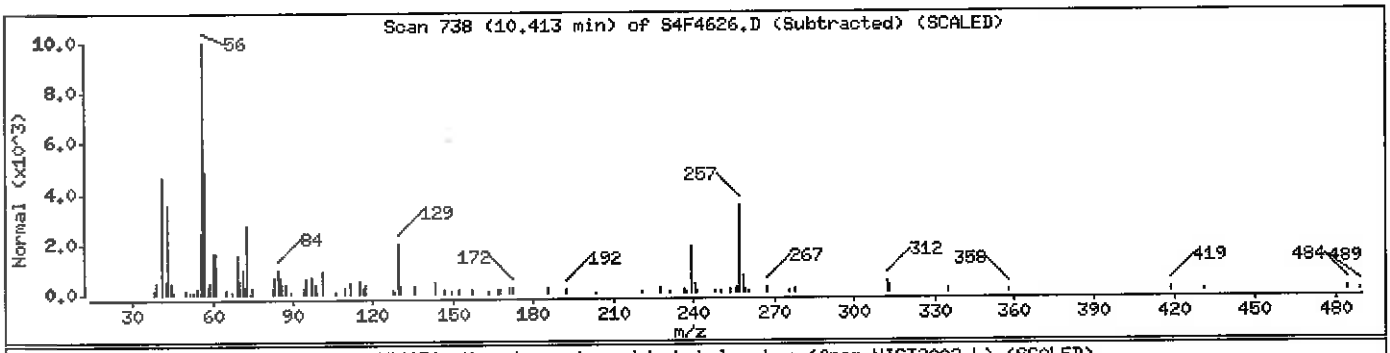
Client ID: E0AB9 Instrument: S4.i

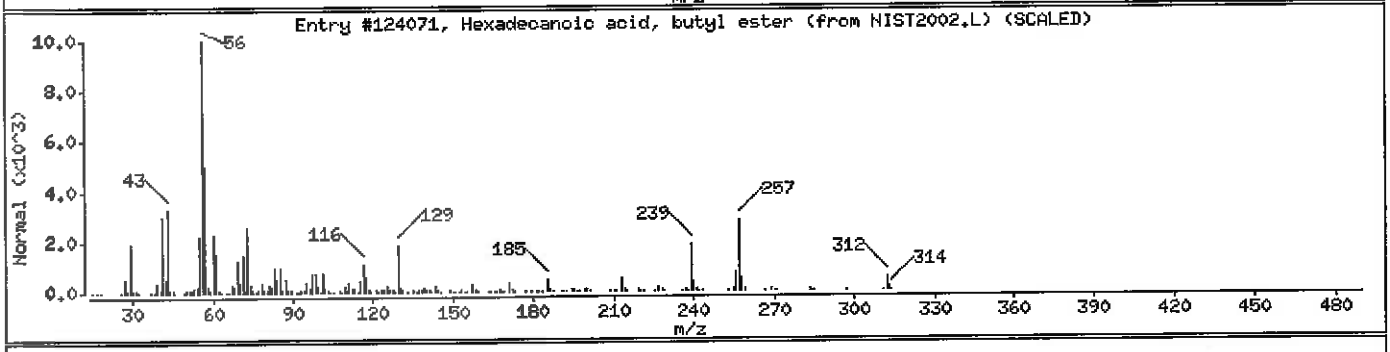
Sample Info: M1238-14B,,73021,,

Volume Injected (uL): 2.0 Operator: CLM SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Hexadecanoic acid, butyl ester	111-06-8	NIST2002.L	124071	93	C20H40O2	312





Data File: \\Avogadro\Organics\S4.I\130803.B\S4F4627.D

Date : 04-AUG-2013 00:38

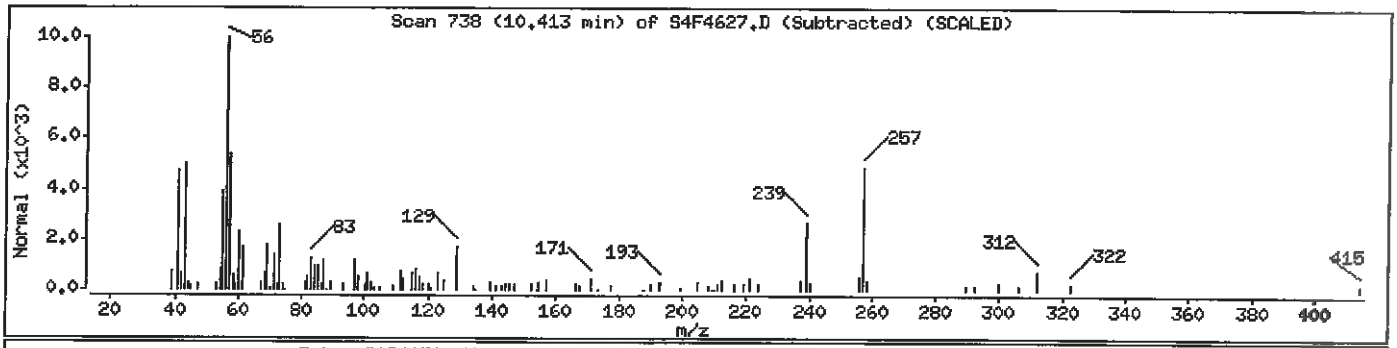
Client ID: EOAC0 Instrument: S4.i

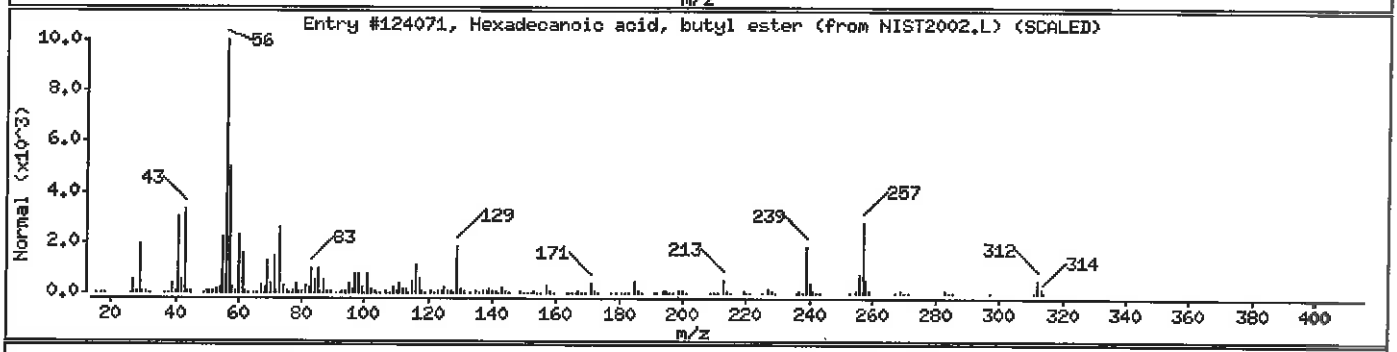
Sample Info: M1238-15B,,73021,,

Volume Injected (uL): 2.0 Operator: CLM SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Hexadecanoic acid, butyl ester	111-06-8	NIST2002.L	124071	96	C20H40O2	312





Data File: \\Avogadro\Organics\S4.I\130803.B\S4F4628.D

Date : 04-AUG-2013 01:03

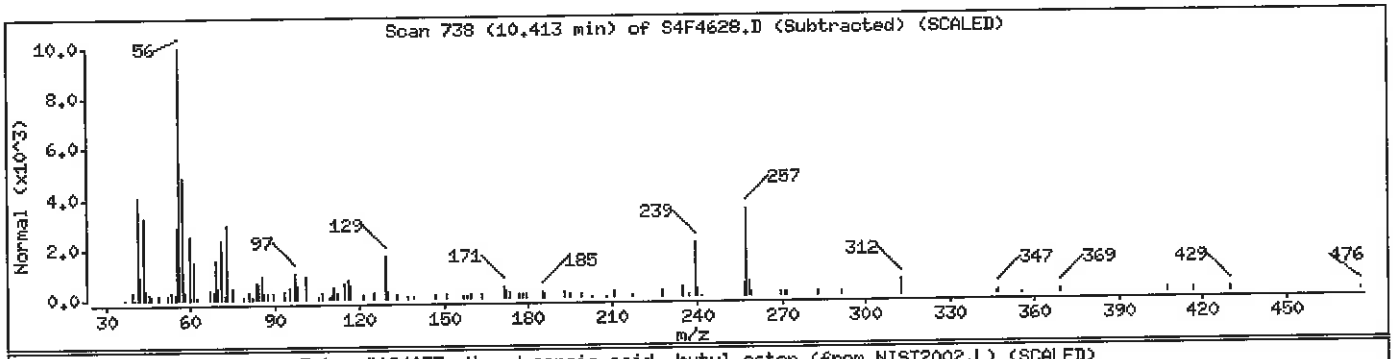
Client ID: E0AC1 Instrument: S4.i

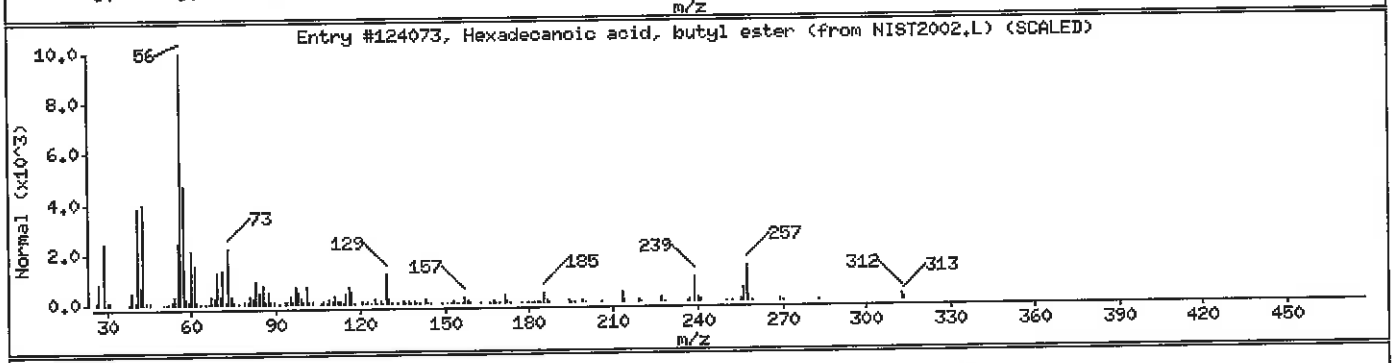
Sample Info: M1238-16B,,73021,,

Volume Injected (uL): 2.0 Operator: CLM SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Hexadecanoic acid, butyl ester	111-06-8	NIST2002.L	124073	94	C20H40O2	312





Data File: \\Avogadro\Organics\S4.I\130803.B\S4F4629.D

Date : 04-AUG-2013 01:28

Client ID: EOAC2

Instrument: S4.i

Sample Info: M1238-17B,,73021,,

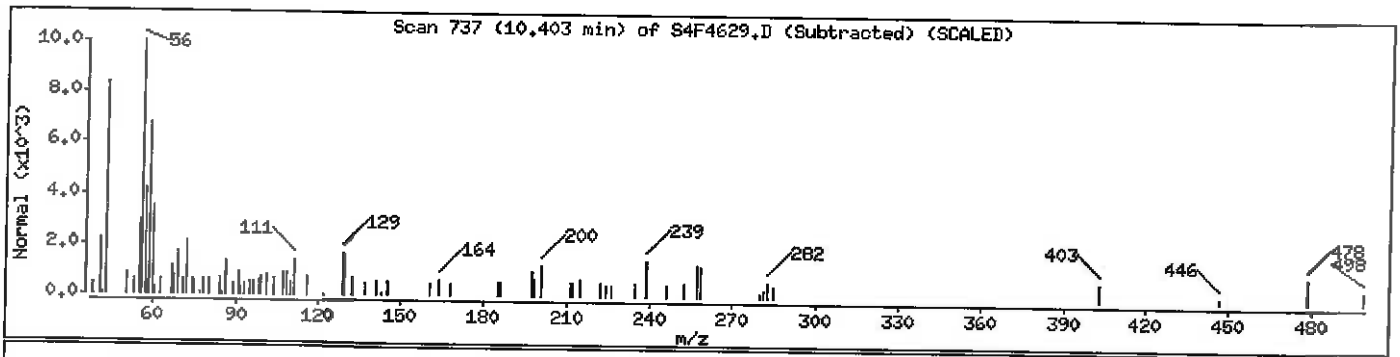
Volume Injected (uL): 2.0

Operator: CLM SRC: LIMS

Column phase: RXI-5SILMS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\130803.B\S4F4620.D

Date : 03-AUG-2013 21:43

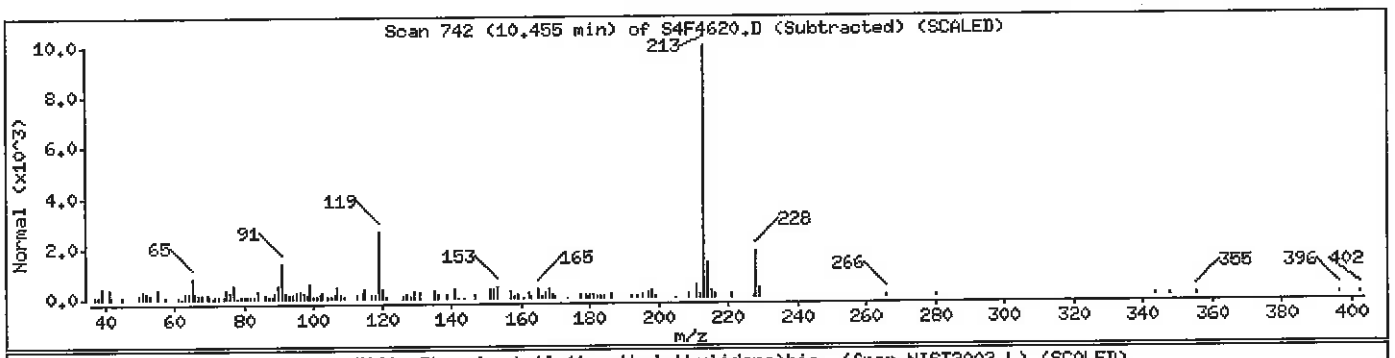
Client ID: E0AB3 Instrument: S4.i

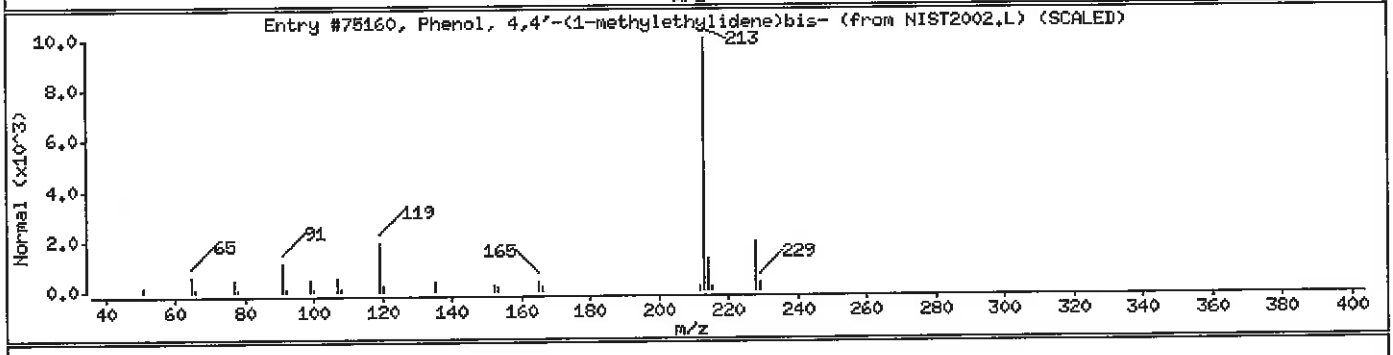
Sample Info: M1238-08B,,73021,,

Volume Injected (uL): 2.0 Operator: CLM SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Phenol, 4,4'-(1-methylethylidene)bis-	80-05-7	NIST2002.L	75160	96	C15H16O2	228





Data File: \\Avogadro\Organics\S4.I\130803.B\S4F4621.D

Date : 03-AUG-2013 22:08

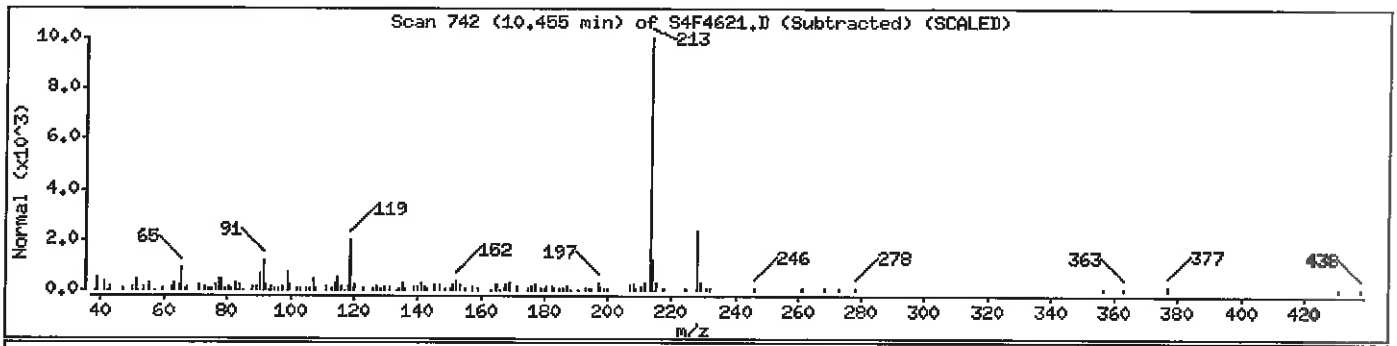
Client ID: E0AB4 Instrument: S4.i

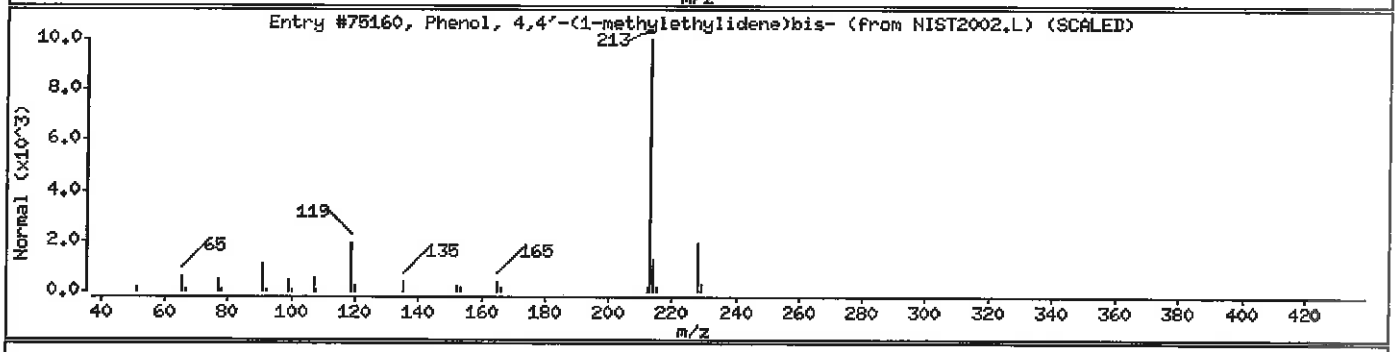
Sample Info: M1238-09B,,73021,,

Volume Injected (uL): 2.0 Operator: CLM SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Phenol, 4,4'-(1-methylethylidene)bis-	80-05-7	NIST2002.L	75160	90	C15H16O2	228





Data File: \\Avogadro\Organics\S4.I\130803.B\S4F4622.D

Date : 03-AUG-2013 22:33

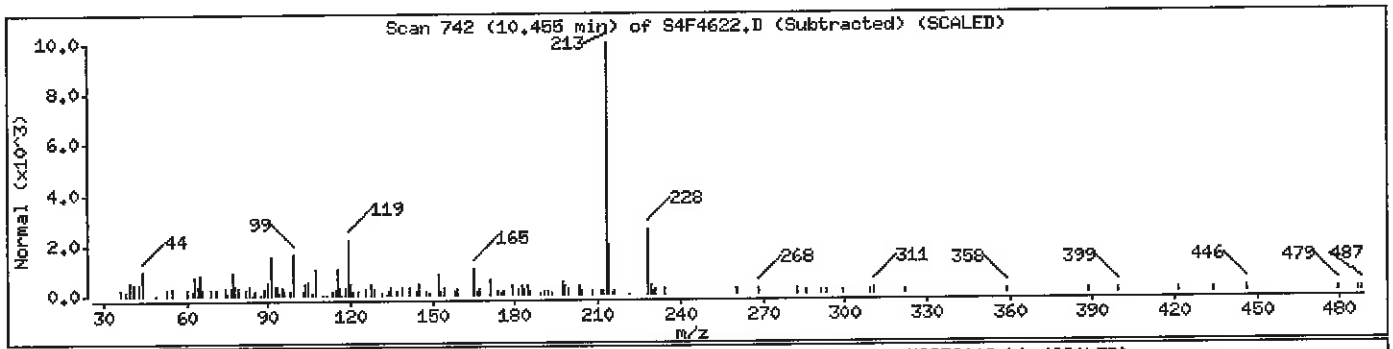
Client ID: EQAB5 Instrument: S4.i

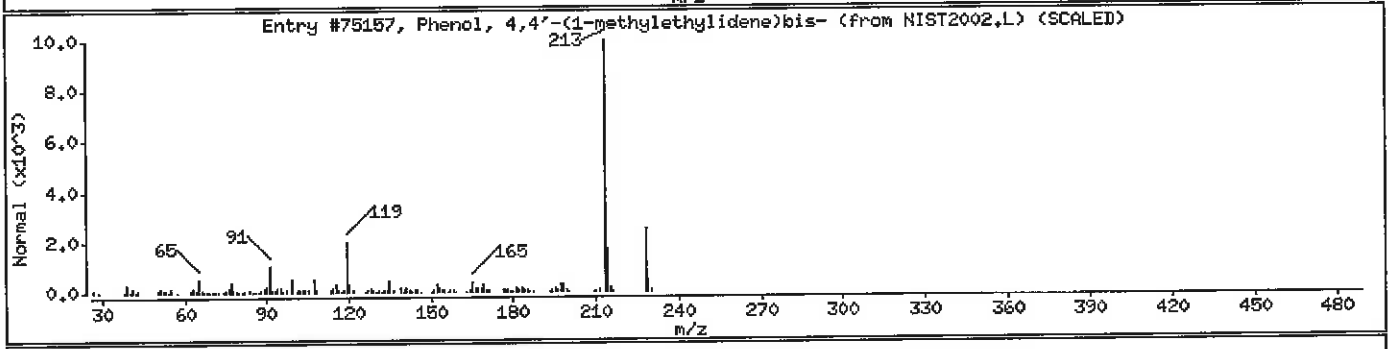
Sample Info: M1238-10B,,73021,,

Volume Injected (uL): 2.0 Operator: CLM SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Phenol, 4,4'-(1-methylethylidene)bis-	80-05-7	NIST2002.L	75157	90	C15H16O2	228





Data File: \\Avogadro\Organics\S4.I\130803.B\S4F4623.D

Date : 03-AUG-2013 22:58

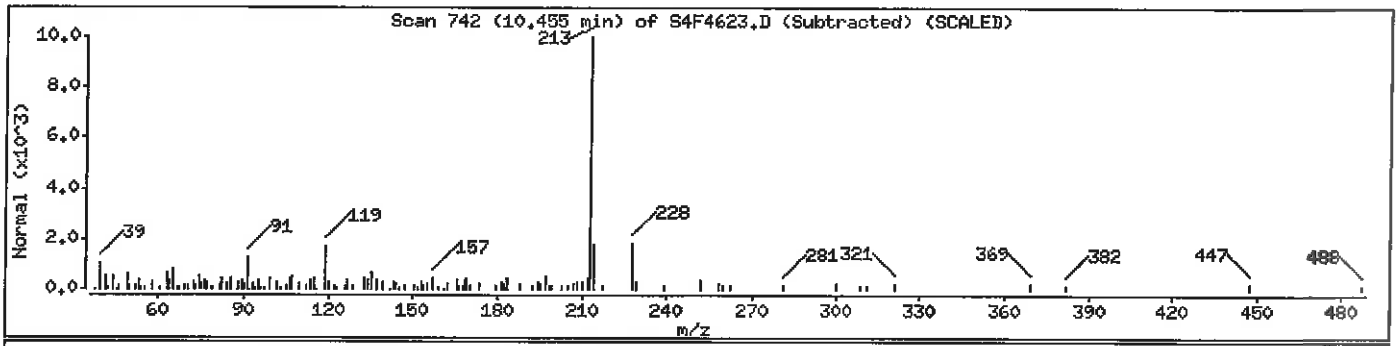
Client ID: EOAB6 Instrument: S4.i

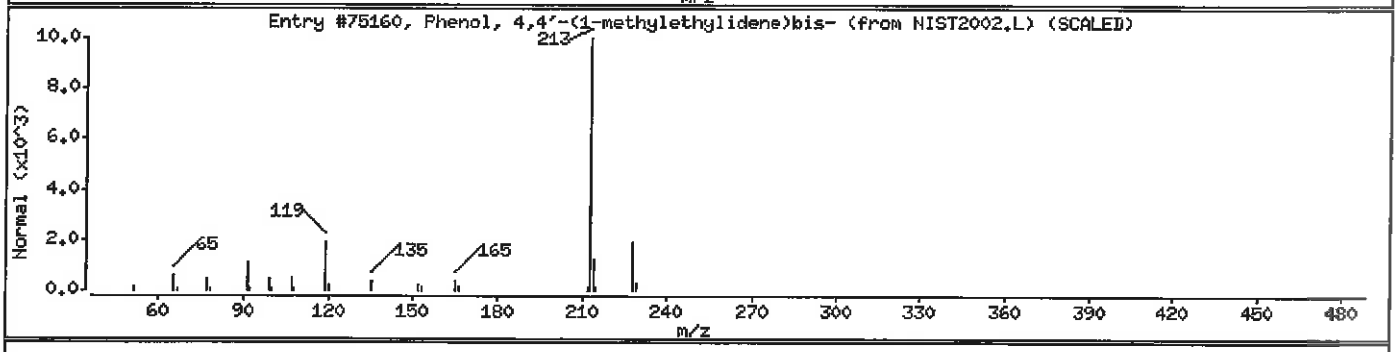
Sample Info: M1238-11B,,73021,,

Volume Injected (uL): 2.0 Operator: CLM SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Phenol, 4,4'-(1-methylethylidene)bis-	80-05-7	NIST2002.L	75160	89	C15H16O2	228





Data File: \\Avogadro\Organics\S4.I\130803.B\S4F4624.D

Date : 03-AUG-2013 23:23

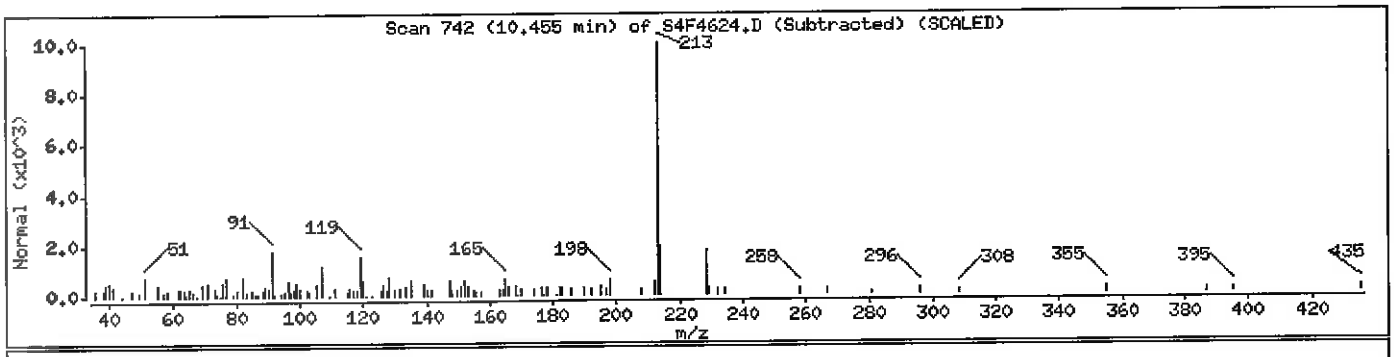
Client ID: E0AB7 Instrument: S4.i

Sample Info: M1238-12B,,73021,,

Volume Injected (uL): 2.0 Operator: CLM SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\130803.B\S4F4626.D

Date : 04-AUG-2013 00:13

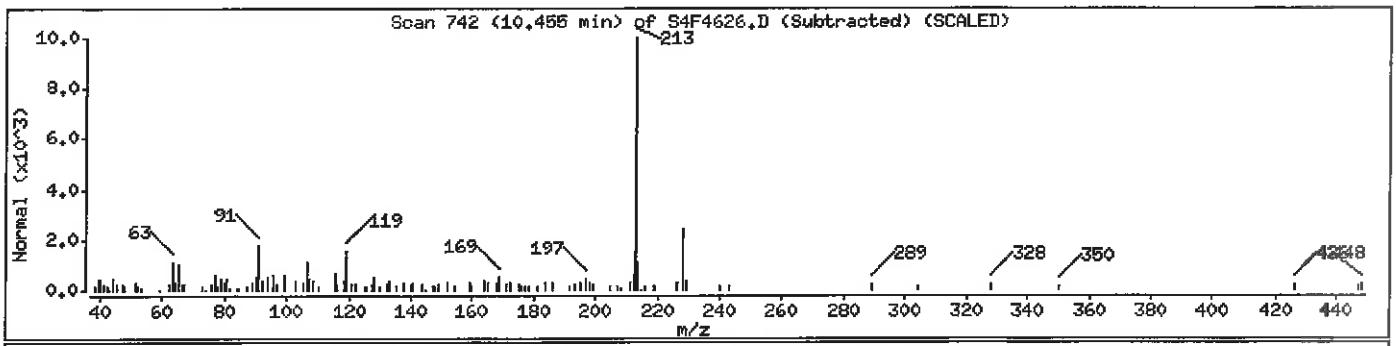
Client ID: E0AB9 Instrument: S4.i

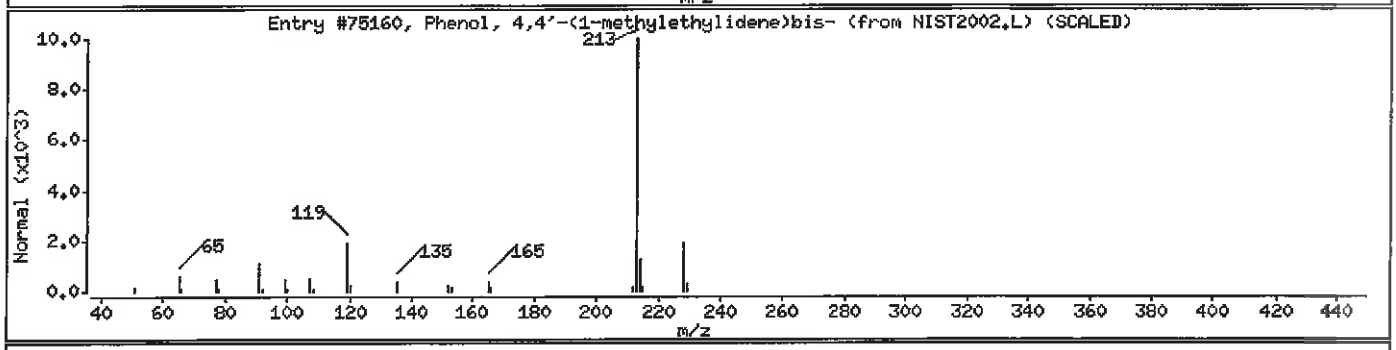
Sample Info: M1238-14B,,73021,,

Volume Injected (uL): 2.0 Operator: CLH SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Phenol, 4,4'-(1-methylethylidene)bis-	80-05-7	NIST2002.L	75160	87	C15H16O2	228





Data File: \\Avogadro\Organics\S4.I\130803.B\S4F4627.D

Date : 04-AUG-2013 00:38

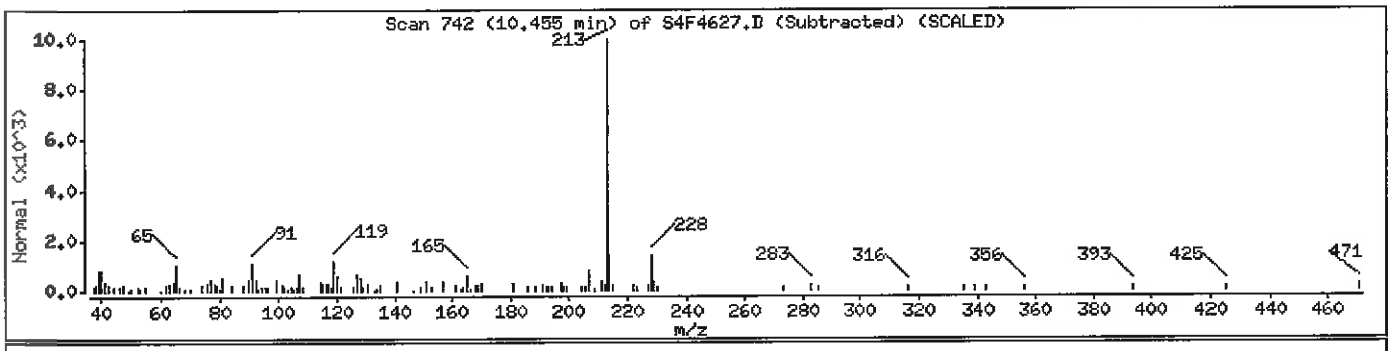
Client ID: EOACO | Instrument: S4.i

Sample Info: M1238-15B,,73021,,

Volume Injected (uL): 2.0 | Operator: CLM SRC: LIMS

Column phase: RXI-5SILMS | Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\130803.B\S4F4628.D

Date : 04-AUG-2013 01:03

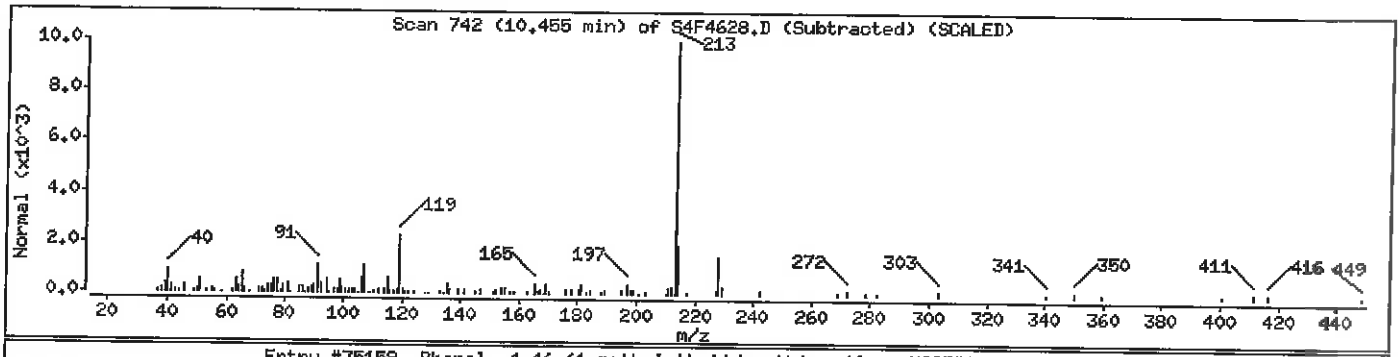
Client ID: E0AC1 Instrument: S4.i

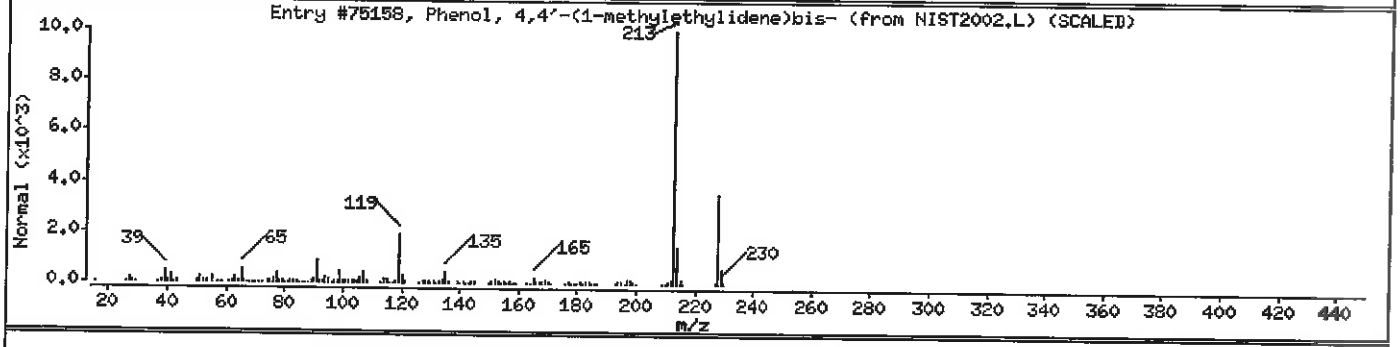
Sample Info: M1238-16B,,73021,,

Volume Injected (uL): 2.0 Operator: CLM SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Phenol, 4,4'-(1-methylethylidene)bis-	80-05-7	NIST2002.L	75158	87	C15H16O2	228





Data File: \\Avogadro\Organics\S4.I\130803.B\S4F4613.D

Date : 03-AUG-2013 18:48

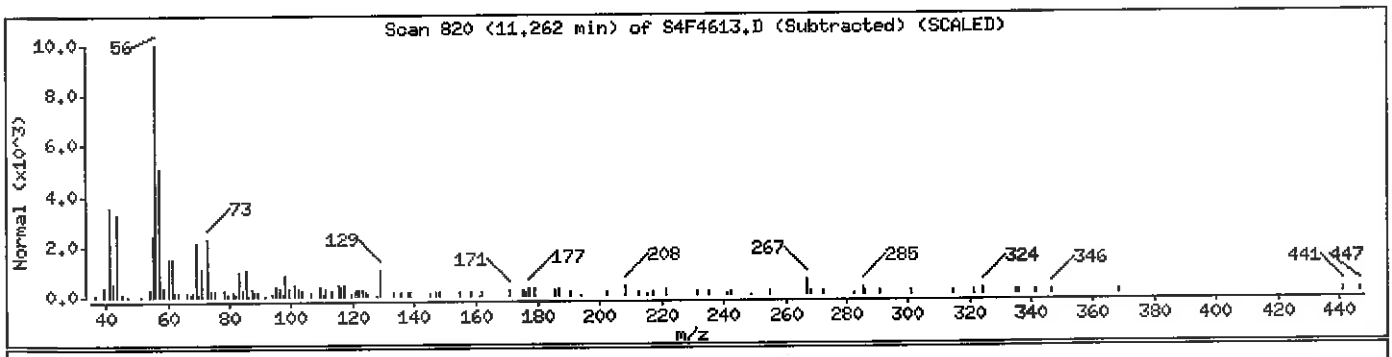
Client ID: E0AA8 Instrument: S4.i

Sample Info: M1238-03B,,73021,,

Volume Injected (uL): 2.0 Operator: CLM SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\130803.B\S4F4617.D

Date : 03-AUG-2013 20:27

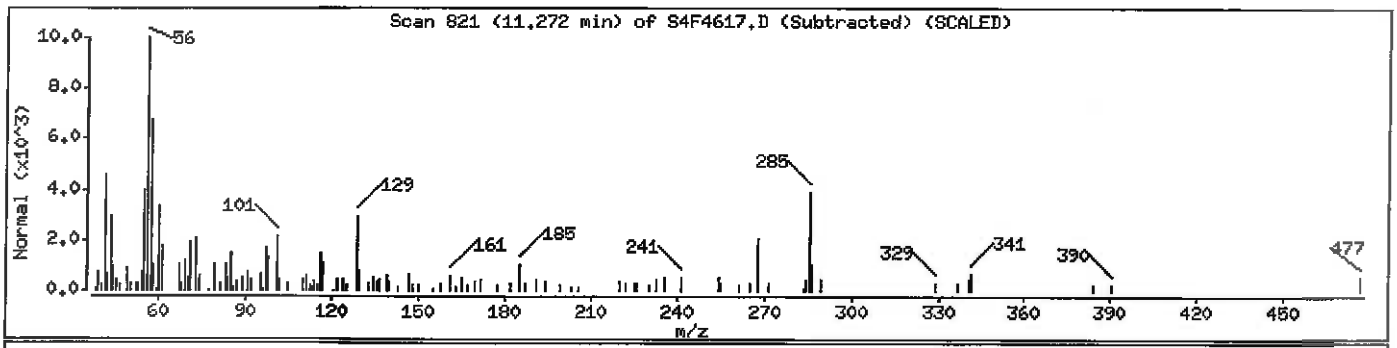
Client ID: EOAB2 Instrument: S4.i

Sample Info: M1238-07B,,73021,,

Volume Injected (uL): 2.0 Operator: CLM SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\130803.B\S4F4626.D

Date : 04-AUG-2013 00:13

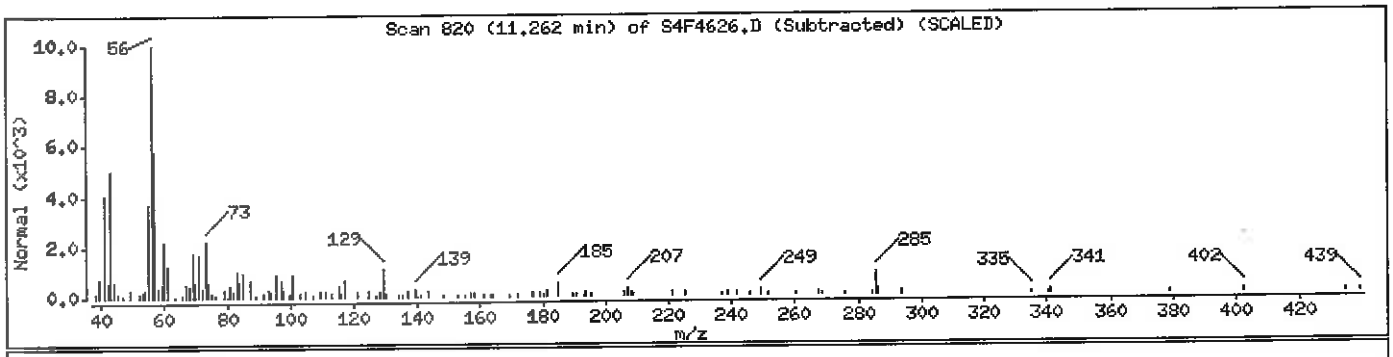
Client ID: E0AB9 Instrument: S4.i

Sample Info: M1238-14B,,73021,,

Volume Injected (uL): 2.0 Operator: CLM SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\130803.B\S4F4627.D

Date : 04-AUG-2013 00:38

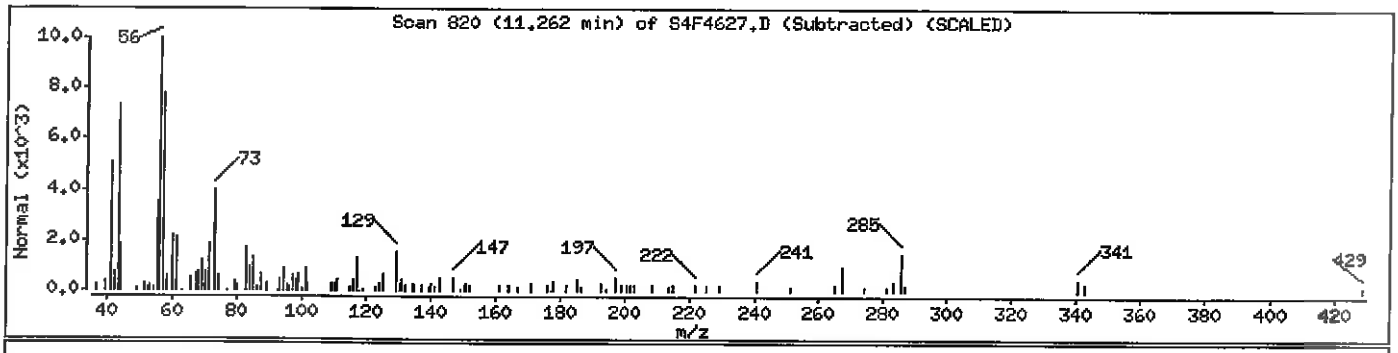
Client ID: E0AC0 Instrument: S4.i

Sample Info: M1238-15B,,73021,,

Volume Injected (uL): 2.0 Operator: CLM SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\130803.B\S4F4628.D

Date : 04-AUG-2013 01:03

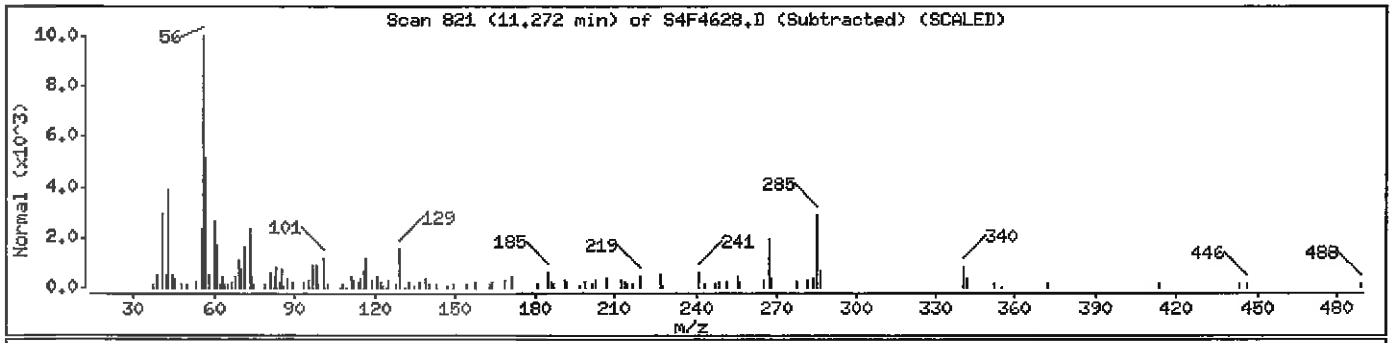
Client ID: EOAC1 Instrument: S4.i

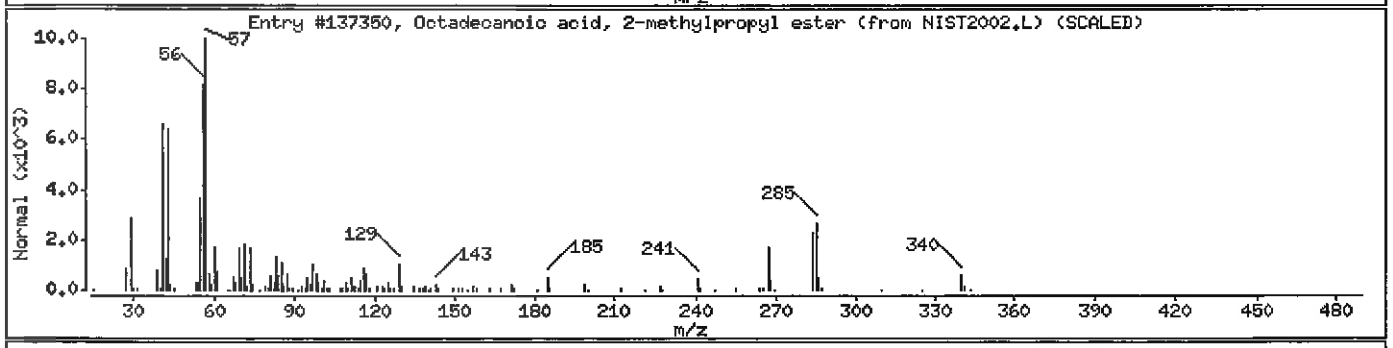
Sample Info: M1238-16B,,73021,,

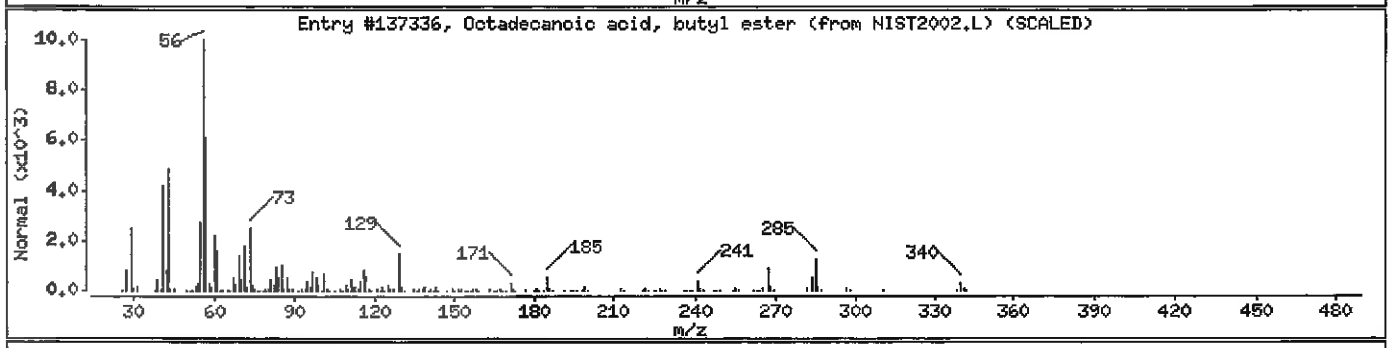
Volume Injected (uL): 2.0 Operator: CLM SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Octadecanoic acid, 2-methylpropyl ester	646-13-9	NIST2002.L	137350	95	C22H44O2	340
Octadecanoic acid, butyl ester	123-95-5	NIST2002.L	137336	90	C22H44O2	340







Data File: \\Avogadro\Organics\S4.I\130803.B\S4F4611.D

Date : 03-AUG-2013 17:58

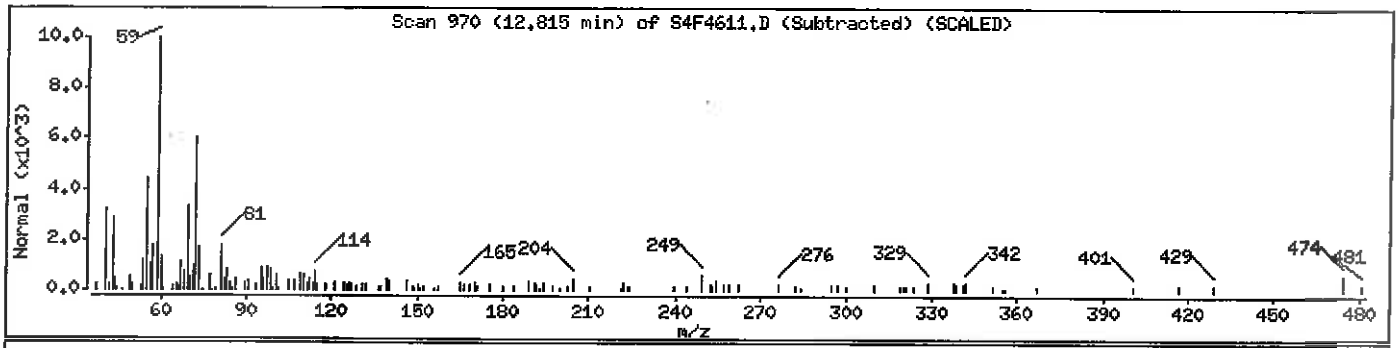
Client ID: E0AA5 Instrument: S4.i

Sample Info: M1238-01B,,73021,,

Volume Injected (uL): 2.0 Operator: CLM SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\130803.B\S4F4612.D

Date : 03-AUG-2013 18:23

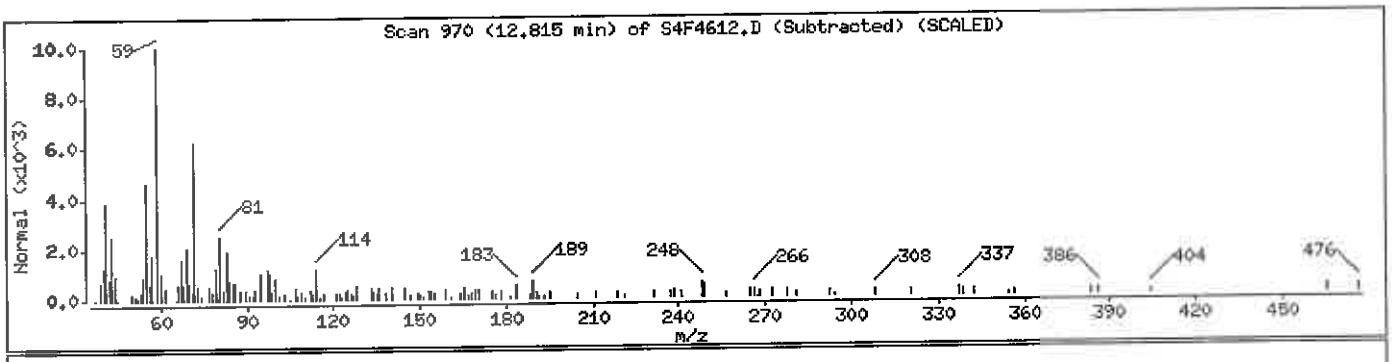
Client ID: E0AA6 Instrument: S4.i

Sample Info: M1238-02B,,73021,,

Volume Injected (uL): 2.0 Operator: CLM SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\130803.B\S4F4613.D

Date : 03-AUG-2013 18:48

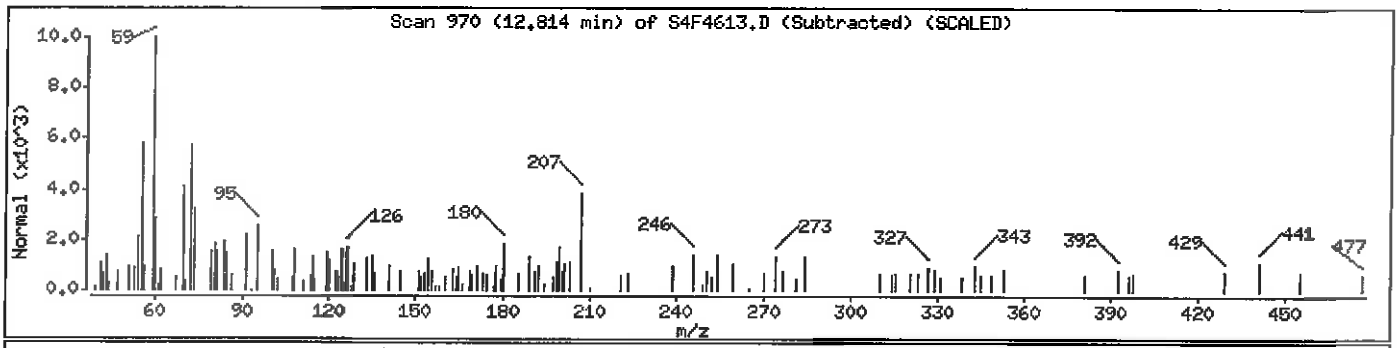
Client ID: EOAA8 Instrument: S4.i

Sample Info: M1238-03B,,73021,,

Volume Injected (uL): 2.0 Operator: CLH SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\130803.B\S4F4614.D

Date : 03-AUG-2013 19:12

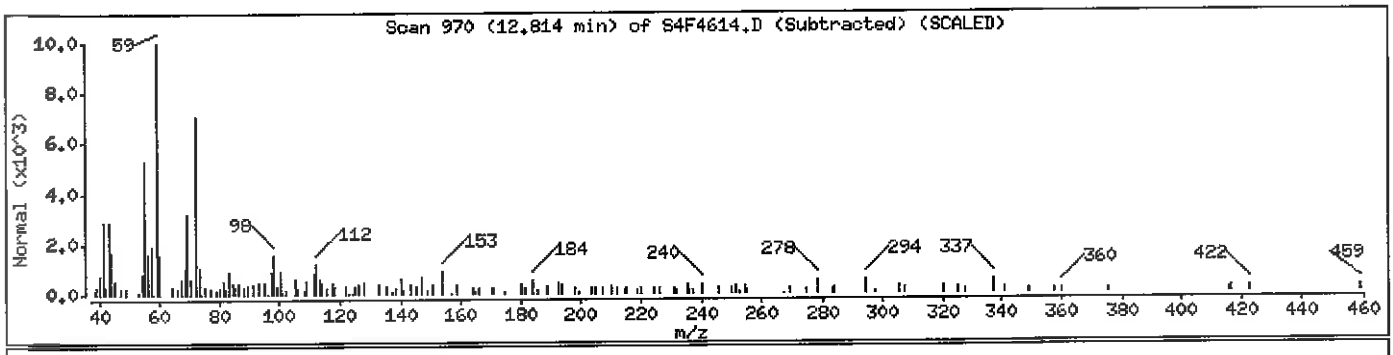
Client ID: E0AA9 Instrument: S4.i

Sample Info: M1238-04B,,73021,,

Volume Injected (uL): 2.0 Operator: CLM SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\130803.B\S4F4615.D

Date : 03-AUG-2013 19:38

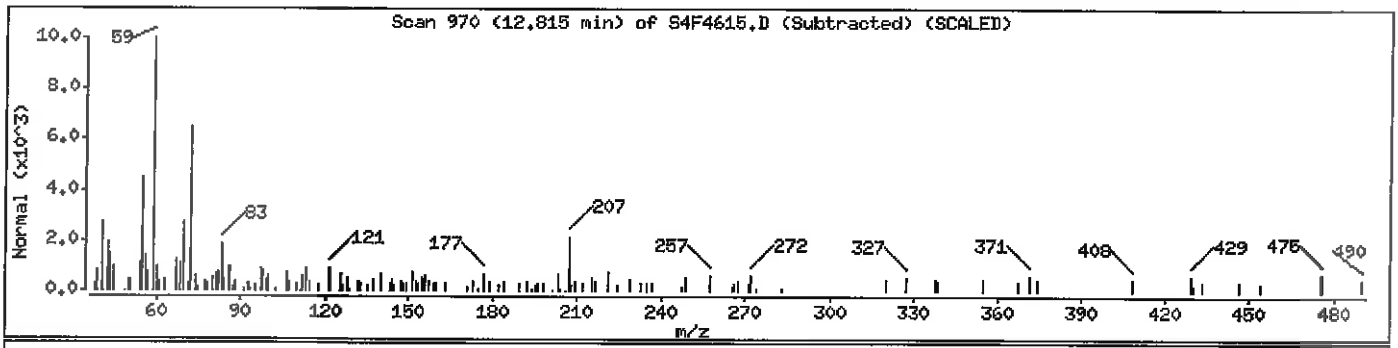
Client ID: E0AB0 Instrument: S4.i

Sample Info: M1238-05B,,73021,,

Volume Injected (uL): 2.0 Operator: CLM SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\130803.B\S4F4616.D

Date : 03-AUG-2013 20:02

Client ID: E0AB1

Instrument: S4.i

Sample Info: M1238-06B,,73021,,

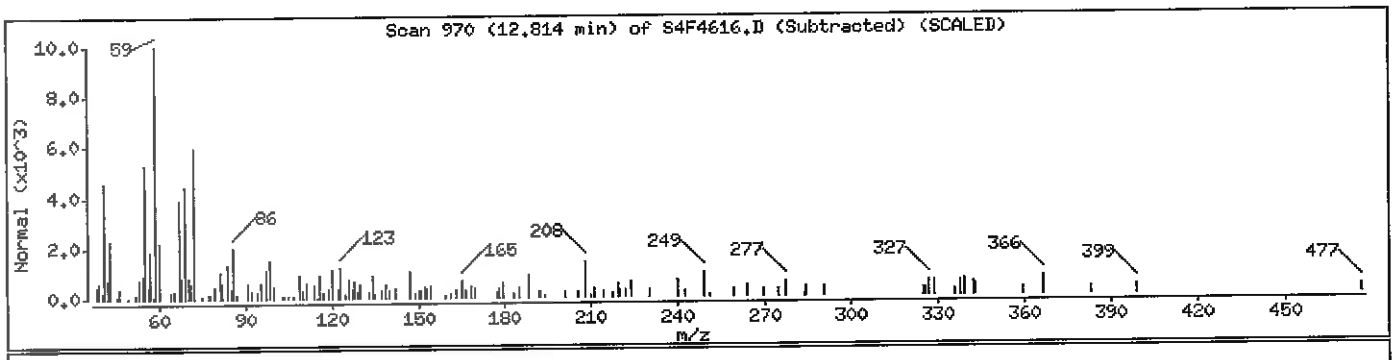
Volume Injected (uL): 2.0

Operator: CLM SRC: LIMS

Column phase: RXI-5SILMS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\130803.B\S4F4617.D

Date : 03-AUG-2013 20:27

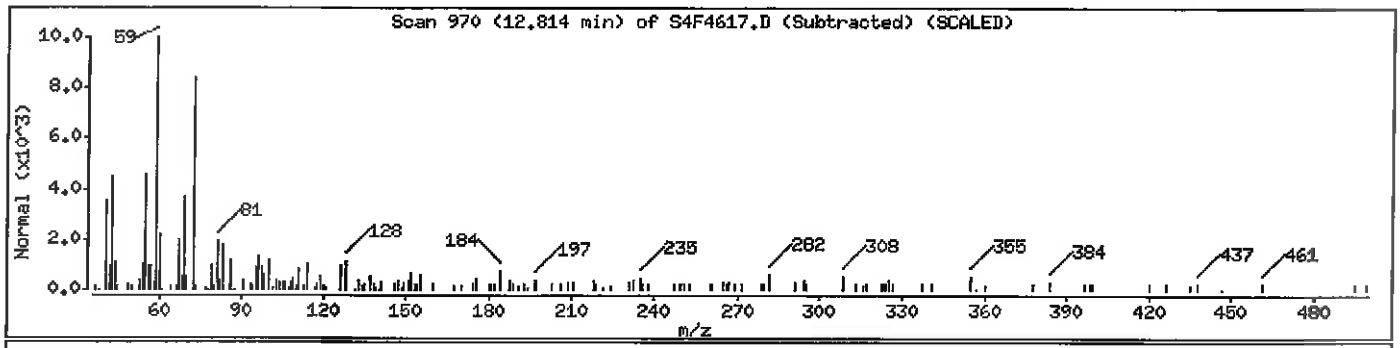
Client ID: E0AB2 Instrument: S4.i

Sample Info: M1238-07B,,73021,,

Volume Injected (uL): 2.0 Operator: CLH SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\130803.B\S4F4620.D

Date : 03-AUG-2013 21:43

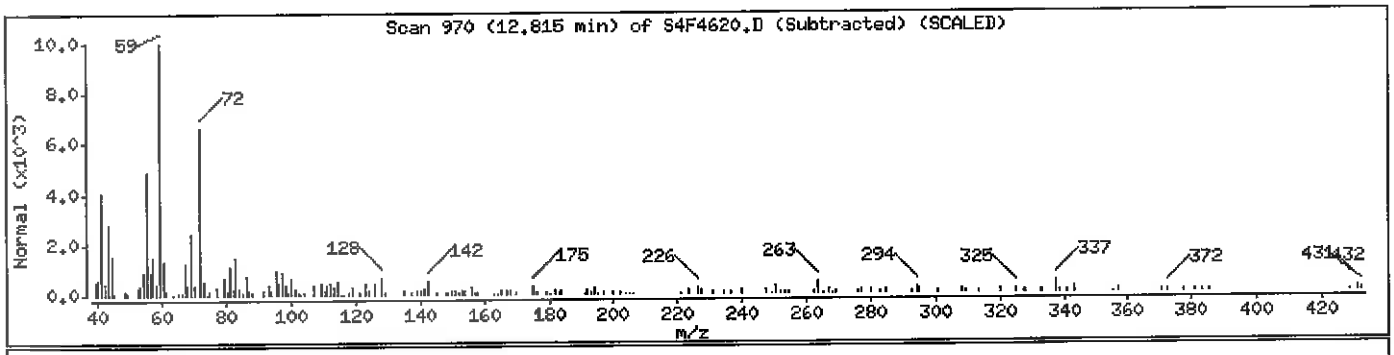
Client ID: E0AB3 Instrument: S4.i

Sample Info: M1238-08B,,73021,,

Volume Injected (uL): 2.0 Operator: CLM SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\130803.B\S4F4621.D

Date : 03-AUG-2013 22:08

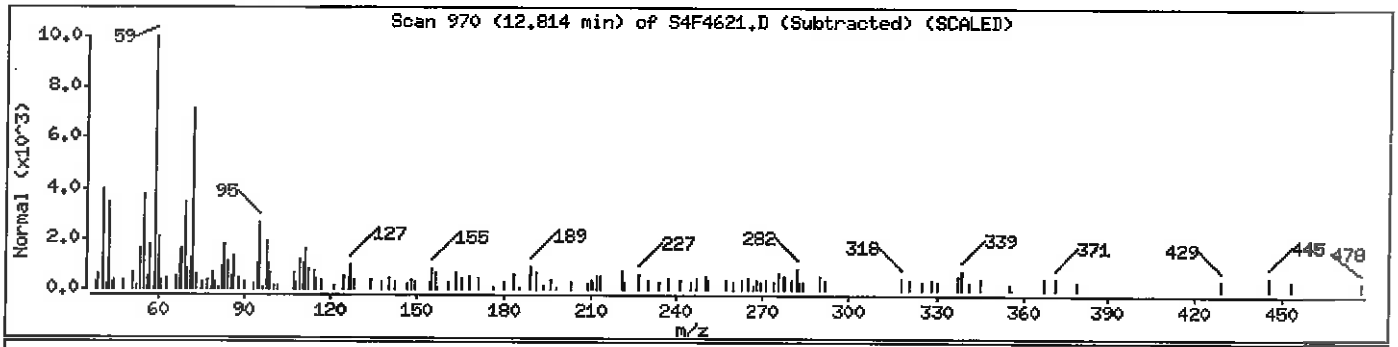
Client ID: E0AB4 Instrument: S4.i

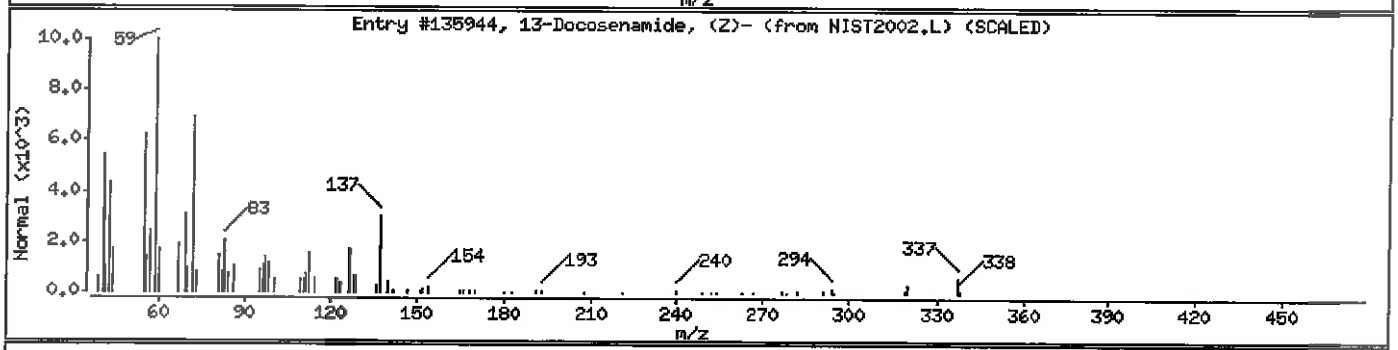
Sample Info: M1238-09B,,73021,,

Volume Injected (uL): 2.0 Operator: CLM SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
13-Docosenamide, (Z)-	112-84-5	NIST2002.L	135944	89	C22H43NO	337





Data File: \\Avogadro\Organics\S4.I\130803.B\S4F4622.D

Date : 03-AUG-2013 22:33

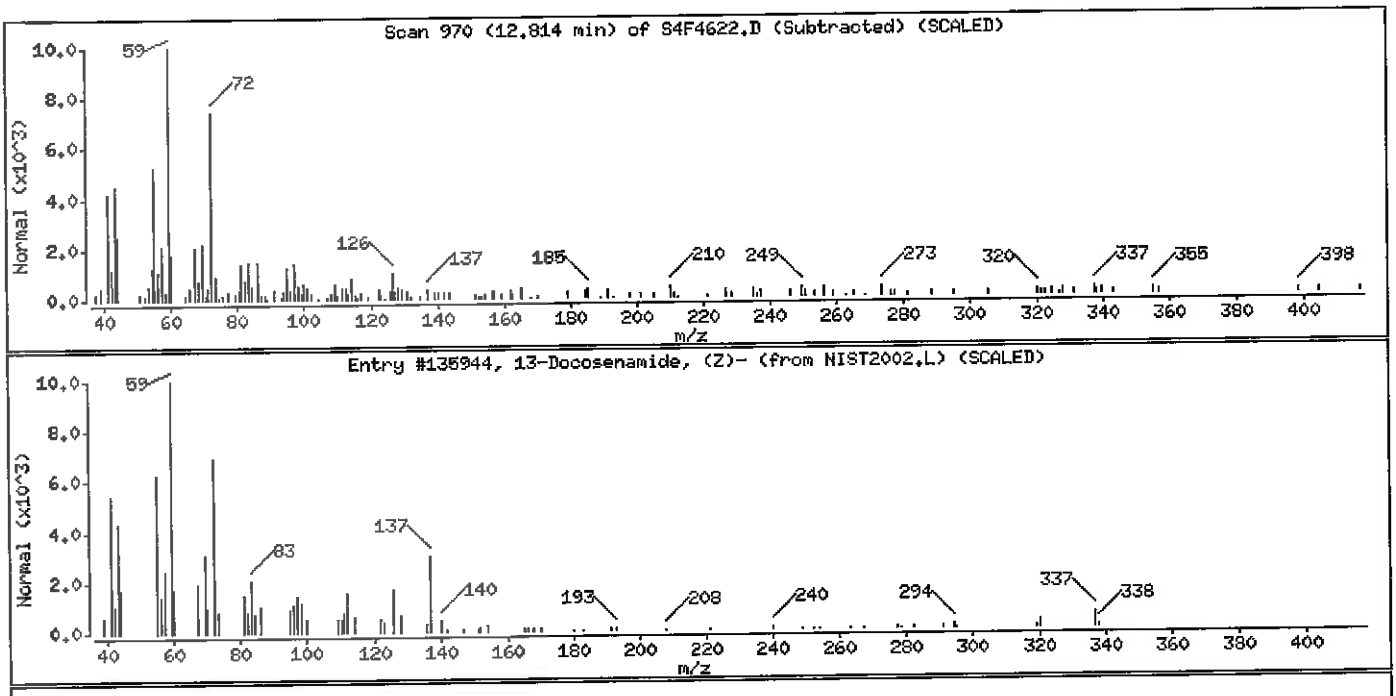
Client ID: E0AB5 Instrument: S4.i

Sample Info: M1238-10B,,73021,,

Volume Injected (uL): 2.0 Operator: CLM SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
13-Docosenamide, (Z)-	112-84-5	NIST2002.L	135944	93	C22H43NO	337



Data File: \\Avogadro\Organics\S4.I\130803.B\S4F4623.D

Date : 03-AUG-2013 22:58

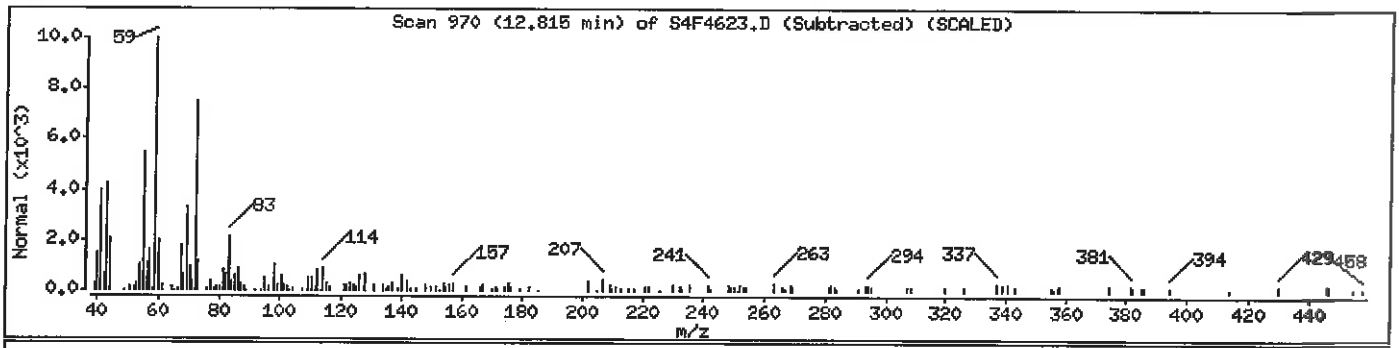
Client ID: E0AB6 Instrument: S4.i

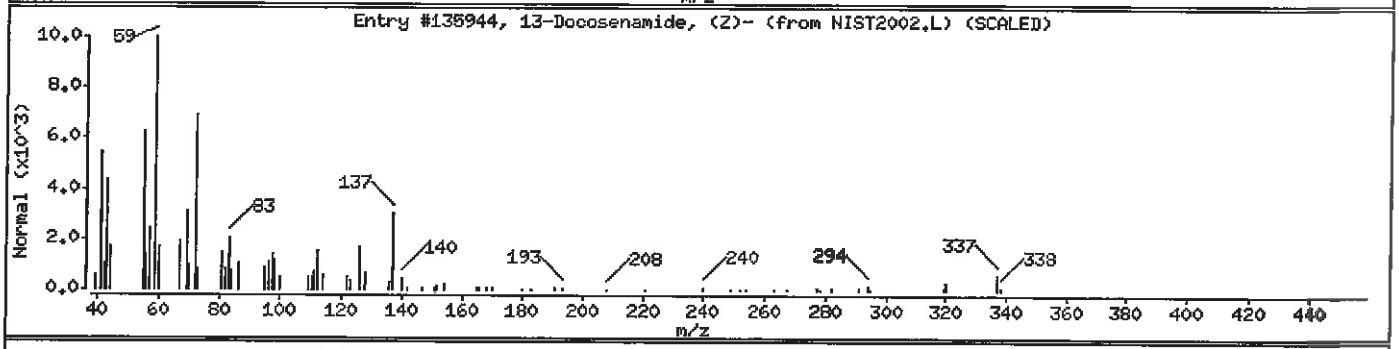
Sample Info: M1238-11B,,73021,,

Volume Injected (uL): 2.0 Operator: CLM SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
13-Docosenamide, (Z)-	112-84-5	NIST2002.L	135944	91	C22H43NO	337





Data File: \\Avogadro\Organics\S4.I\130803.B\S4F4624.D

Date : 03-AUG-2013 23:23

Client ID: E0AB7

Instrument: S4.i

Sample Info: M1238-12B,,73021,,

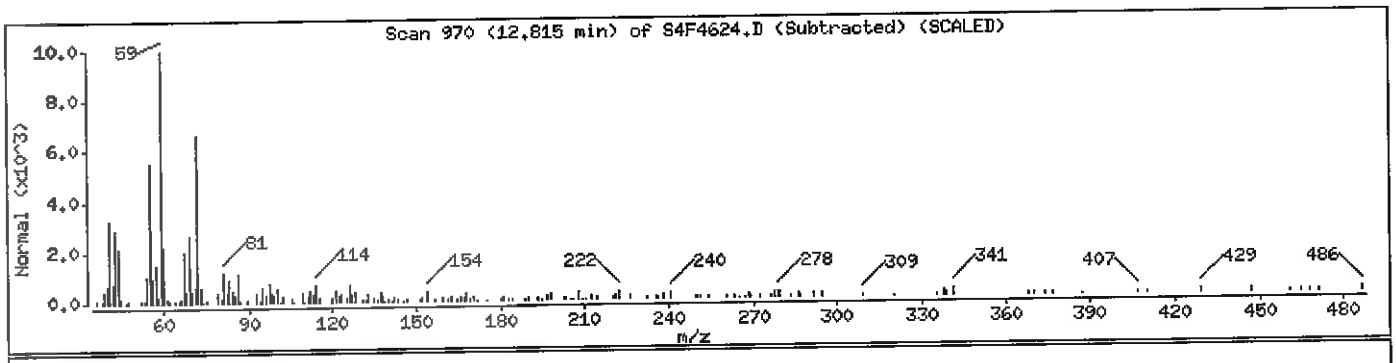
Volume Injected (uL): 2.0

Operator: CLM SRC: LIMS

Column phase: RXI-5SILMS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\130803.B\S4F4625.D

Date : 03-AUG-2013 23:48

Client ID: E0AB8

Instrument: S4.i

Sample Info: M1238-13B,,73021,,

Volume Injected (uL): 2.0

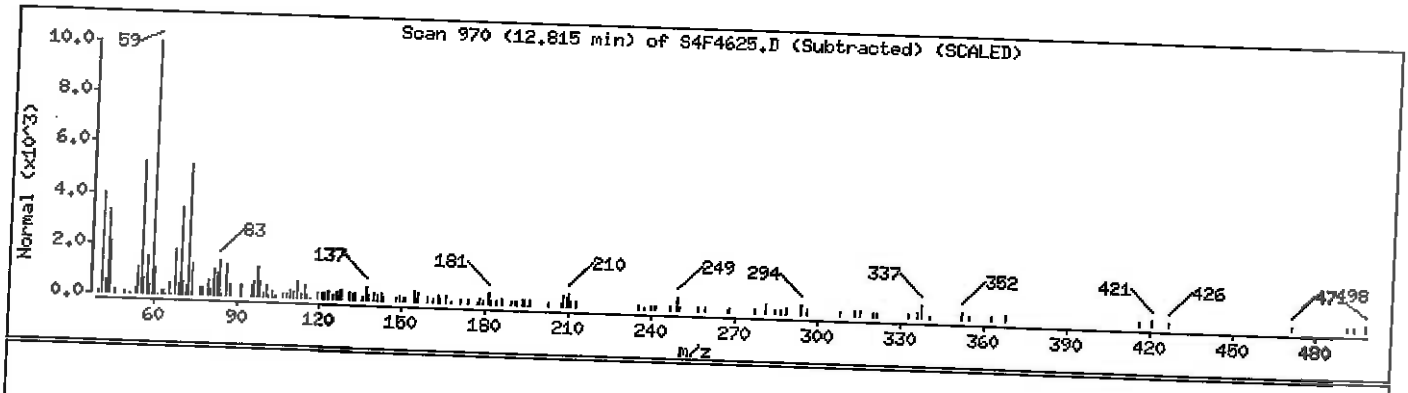
Operator: CLM SRC: LIMS

Column phase: RXI-5SILMS

Column diameter: 0.25

Library Search Compound Match

	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\130803.B\S4F4626.D

Date : 04-AUG-2013 00:13

Client ID: E0AB9

Sample Info: M1238-14B,,73021,,

Volume Injected (uL): 2.0

Column phase: RXI-5SILMS

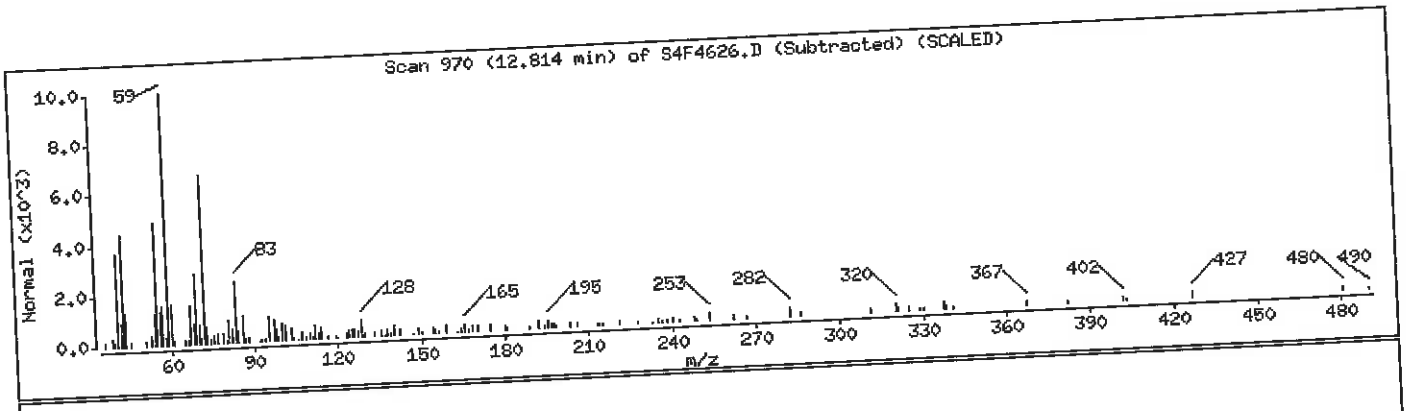
Instrument: S4.i

Operator: CLM SRC: LIMS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
			0	0		0

Unknown



Data File: \\Avogadro\Organics\S4.I\130803.B\S4F4627.D

Date : 04-AUG-2013 00:38

Client ID: EOACO

Instrument: S4.i

Sample Info: M1238-15B,,73021,,

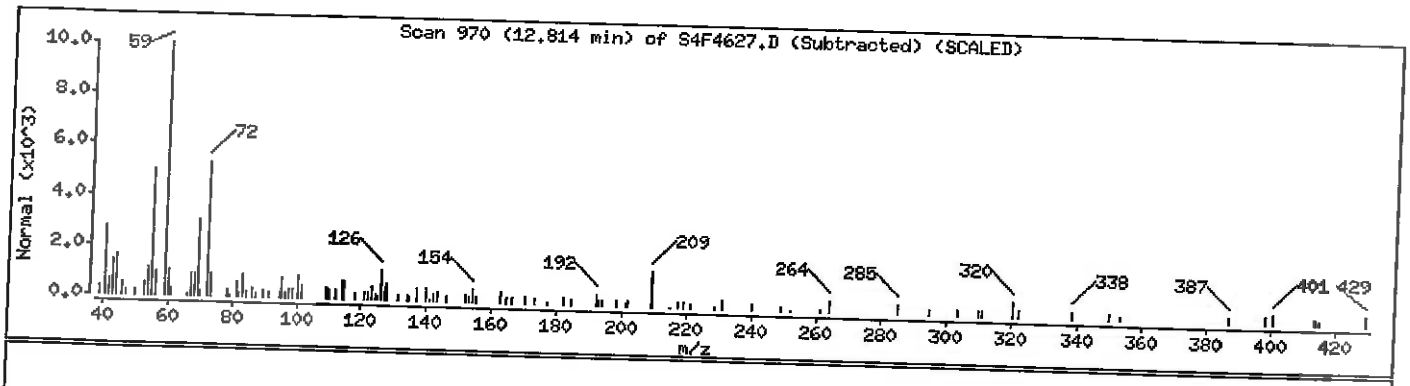
Volume Injected (uL): 2.0

Operator: CLM SRC: LIMS

Column phase: RXI-5SILMS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\130803.B\S4F4628.D

Date : 04-AUG-2013 01:03

Client ID: EOAC1

Sample Info: M1238-16B,,73021,,

Volume Injected (uL): 2.0

Column phase: RXI-5SILMS

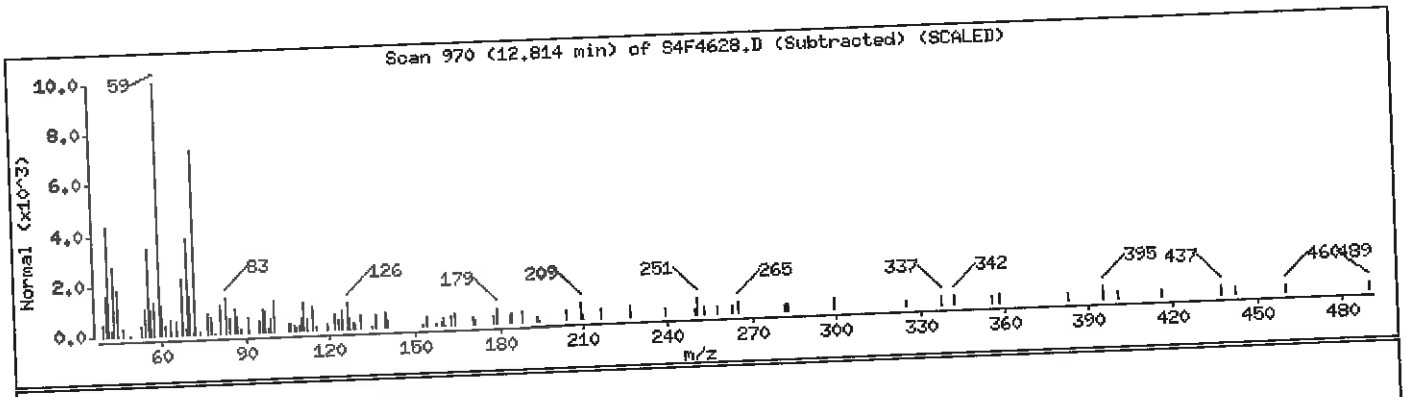
Instrument: S4.i

Operator: CLM SRC: LIMS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
			0	0		0

Unknown



Data File: \\Avogadro\Organics\S4.I\130803.B\S4F4629.D

Date : 04-AUG-2013 01:28

Client ID: EOAC2

Sample Info: M1238-17B,,73021,,

Volume Injected (uL): 2.0

Column phase: RXI-5SILMS

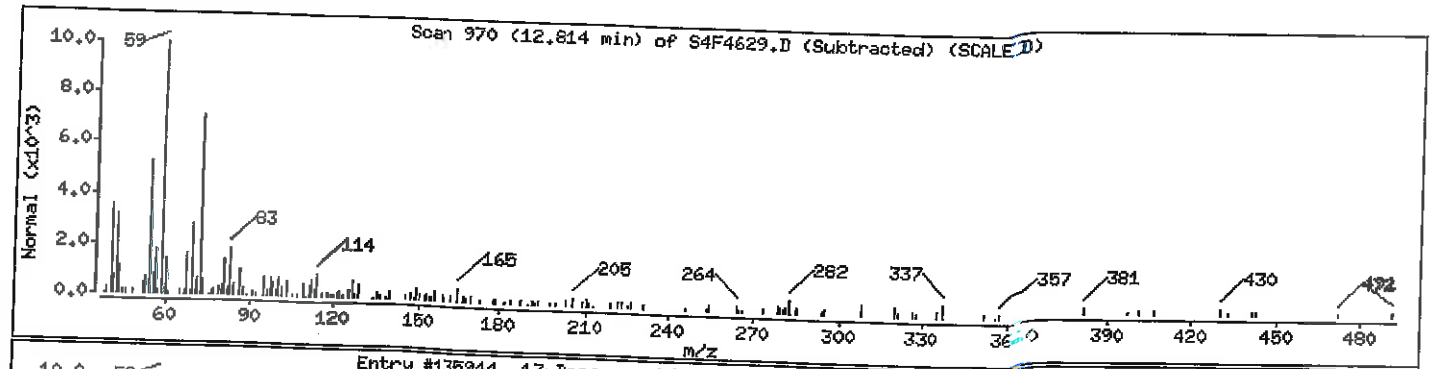
Instrument: S4.i

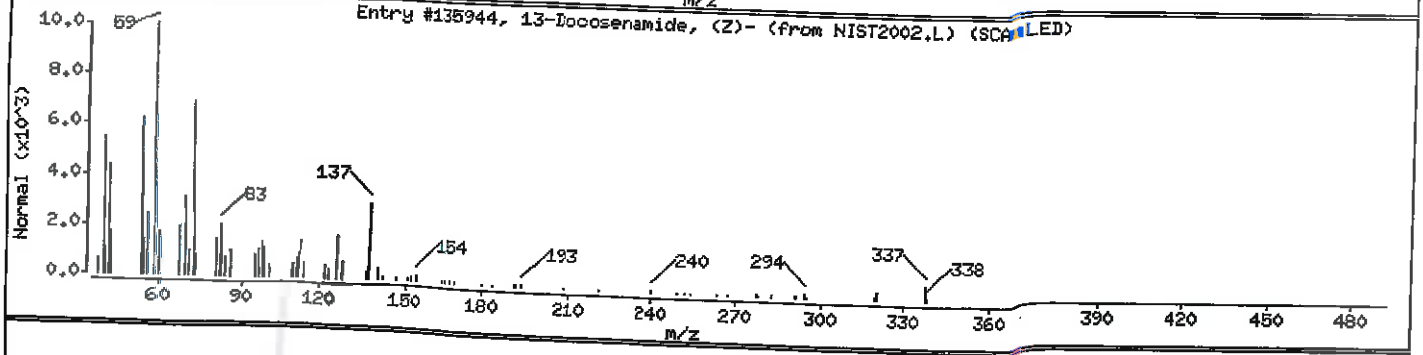
Operator: CLM SRC: LIMS

Column diameter: 0.25

Library Search Compound Match

	CAS Number	Library	Entry	Quality	Formula	Weight
13-Docosenamide, (Z)-	112-84-5	NIST2002.L	135944	87	C22H43NO	337





Data File: \\Avogadro\Organics\S4.I\130803.B\S4F4630.D

Date : 04-AUG-2013 01:53

Client ID: EOAC3

Instrument: S4.i

Sample Info: M1238-18B,,73021,,

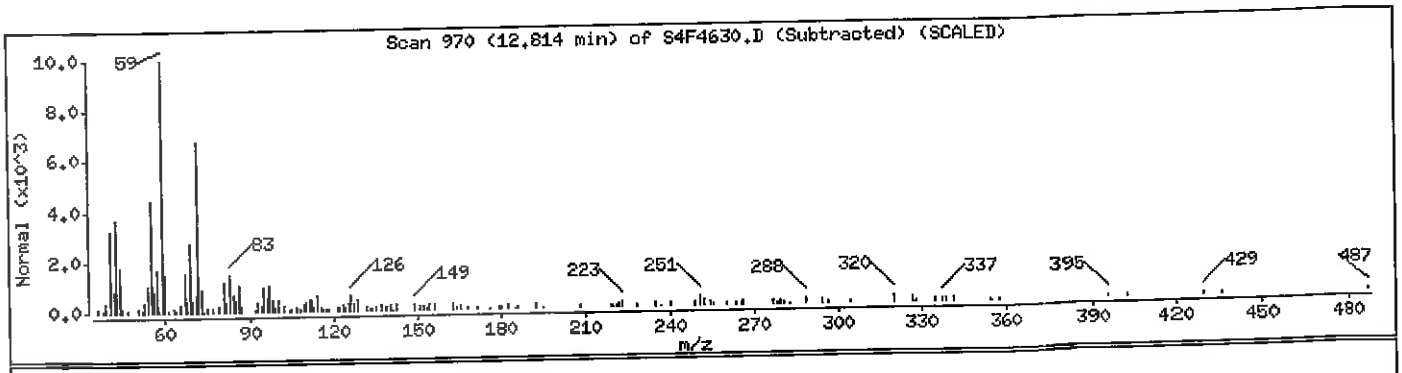
Volume Injected (uL): 2.0

Operator: CLM SRC: LIMS

Column phase: RXI-5SILMS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\130803.B\S4F4631.D

Date : 04-AUG-2013 02:18

Client ID: E0AC4

Instrument: S4.i

Sample Info: M1238-19B,,73021,,

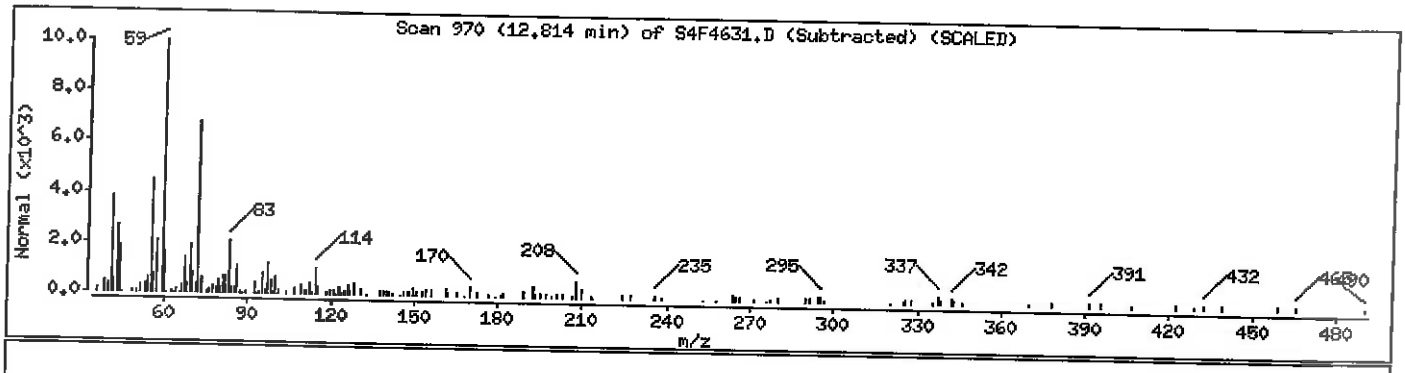
Volume Injected (uL): 2.0

Operator: CLM SRC: LIMS

Column phase: RXI-5SILMS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\130803.B\S4F4632.D

Date : 04-AUG-2013 02:43

Client ID: EOAC5

Instrument: S4.i

Sample Info: M1238-20B,,73021,,

Volume Injected (uL): 2.0

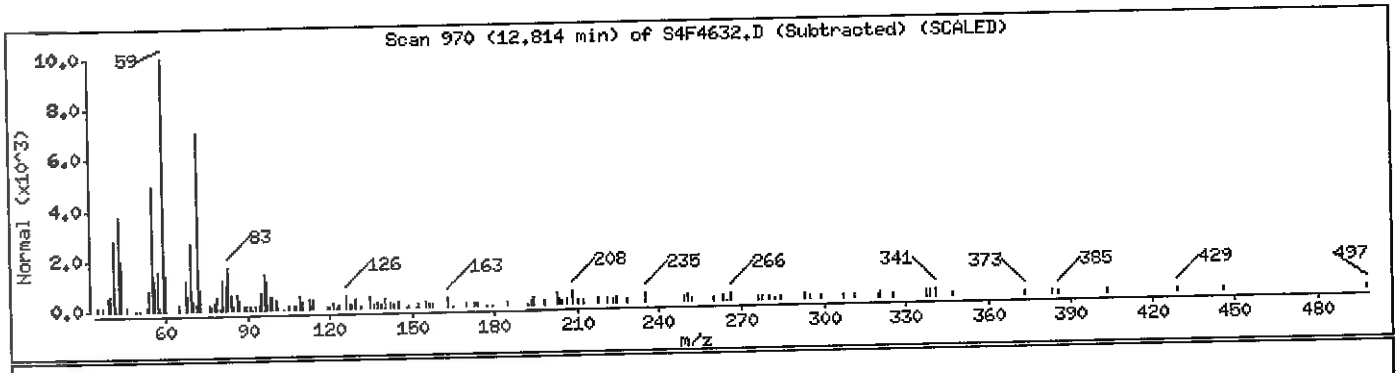
Operator: CLM SRC: LIMS

Column phase: RXI-5SILMS

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
			0	0		0

Unknown



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY ~ REGION V

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Sample Delivery Group: EDAA5 CERCLIS No: FLN000510872

Case No: 43638 Site Name/Location: Castle Construction-FL

Contractor or EPA Lab: Mitkem Data User: Weston

No. of Samples: 90 Date Sampled or Date Received: 8 Aug 2013

Have Chain-of-Custody records been received? Yes ✓ No _____
Have traffic reports or packing lists been received? Yes ✓ No _____
If no, are traffic reports or packing list numbers written on the Chain-of-Custody Record?
Yes _____ No _____
If no, which traffic report or packing list numbers are missing?

_____ _____ _____ _____
_____ _____ _____ _____

Are basic data forms in? Yes ✓ No _____
No of samples claimed: 90 No. of samples received: _____

Received by: [illegible] Date: 8 Aug 2013

Received by LSSS: [illegible] Date: 9 Aug 2013

Review started: 8/13/13 Reviewer Signature: [illegible]

Total time spent on review: 28 Date review completed: 8/16/13

Copied by: R. C. Harvey Date: August 21, 2013

Mailed to user by: [illegible] Date: 23 Aug 13

DATA USER:
Please fill in the blanks below and return this form to:
Sylvia Griffin, Data Mgmt. Coordinator, Region V, ML-10C

Data received by: _____ Date: _____

Data review received by: _____ Date: _____

Inorganic Data Complete [ ] Suitable for Intended Purpose [ ] T if OK
Organic Data Complete [ ] Suitable for Intended Purpose [ ] T if OK
Dioxin data Complete [ ] Suitable for Intended Purpose [ ] T if OK
SAS Data Complete [ ] Suitable for Intended Purpose [ ] T if OK

PROBLEMS: Please indicate reasons why data are not suitable for your uses.

_____

_____

Received by Data Mgmt. Coordinator for Files. Date: _____

APPENDIX D
BORING LOGS

ILLINOIS STATE GEOLOGICAL SURVEY

Water Well	Top	Bottom
sand & gravel	0	37
shale	37	50
Total Depth		**50**

Driller's Log filed

Permit Date: **Permit #:**

COMPANY Norris, Marvin
FARM Nurczyk Kenneth
DATE DRILLED July 1, 1972 **NO.**
ELEVATION 0 **COUNTY NO.** 02554
LOCATION SE SE NW
LATITUDE 41.241853 **LONGITUDE** -88.100996
COUNTY Will **API** 121970255400 **20 - 32N - 10E**

ILLINOIS STATE GEOLOGICAL SURVEY

	Top	Bottom
brown sand	0	5
loose rock - sand	5	15
limestone - brown	15	30
limestone - brnsh gray	30	48
shale	48	123
limestone - gray	123	145
limestone - white	145	163
limestone & shale	163	210
shale	210	217
Total Depth		**217**

Casing: 4" GALV STEEL 11# from 0' to 42'

Size hole below casing: 4"

Water from limestone at 45' to 163'.
Static level 27' below casing top which is 1' above GL
Pumping level 98' when pumping at 3 gpm for 4 hours

Driller's Log filed
Location source: Location from permit

Permit Date: August 20, 1973 **Permit #:**

COMPANY Griffy, Cecil D.
FARM Bowen, Daniel
DATE DRILLED August 30, 1973 **NO.**
ELEVATION 0 **COUNTY NO.** 03896
LOCATION NW NW SE
LATITUDE 41.240669 **LONGITUDE** -88.059534
COUNTY Will **API** 121970389600 **22 - 32N - 10E**

ILLINOIS STATE GEOLOGICAL SURVEY

	Top	Bottom
topsoil	0	2
clay	2	8
limestone	8	45
shale	45	140
limestone	140	170
Total Depth		**170**

Casing: 5" A53 15# from 0' to 40'

Size hole below casing: 5"

Water from limestone at 40' to 170'.
Static level 20' below casing top which is 1' above GL
Pumping level 147' when pumping at 10 gpm for 1 hour

Permanent pump installed at 147'

Driller's Log filed
Location source: Platbook verified

Permit Date: October 15, 1973 **Permit #:**

COMPANY Fykes, Charles N.
FARM Kurbis, Don
DATE DRILLED October 18, 1973 **NO.** 1
ELEVATION 0 **COUNTY NO.** 24298
LOCATION NW SW NW
LATITUDE 41.244188 **LONGITUDE** -88.069462
COUNTY Will **API** 121972429800 **22 - 32N - 10E**

ILLINOIS STATE GEOLOGICAL SURVEY

	Top	Bottom
clay	0	5
sand	5	10
limestone	10	55
shale	55	190
limestone	190	590
St Peters sand	590	645
Galena	190	
St Peter	590	
Total Depth		**645**

Casing: 5" A53 15# from 0' to 40'

Size hole below casing: 5"

Water from St Peters sand at 590' to 645'.
Static level 290' below casing top which is 1' above GL
Pumping level 380' when pumping at 10 gpm for 1 hour

Permanent pump installed at 399'

Driller's Log filed
Location source: Location from permit

Permit Date: February 15, 1980 **Permit #:**

COMPANY Fykes, Charles N.
FARM Headrick, Larry
DATE DRILLED February 19, 1980 **NO.** 1
ELEVATION 619TM **COUNTY NO.** 27898
LOCATION NE NE SE
LATITUDE 41.240752 **LONGITUDE** -88.052261
COUNTY Will **API** 121972789800 **22 - 32N - 10E**

ILLINOIS STATE GEOLOGICAL SURVEY

Private Water Well	Top	Bottom
sand & gravel	0	25
Total Depth		**25**

Casing: 5" SDR 21 from 0' to 20'

Screen: 10' of 5" diameter 10 slot

Grout: BENSEAL from 0 to 0.

Size hole below casing: 5"

Water from sand at 0' to 25'.
Static level 5' below casing top which is 1' above GL
Pumping level 24' when pumping at 0 gpm for 1 hour

Permanent pump installed at 24' on January 12, 1998, with a capacity of 10 gpm

Additional location info: Lot: Subdivision: Tax #25-21-100-001

Address of well: 19990 Rt. 102
Wilmington, IL

Location source: Location from permit

Permit Date: December 8, 1997 **Permit #:** 197-97-

COMPANY Wills, William D.
FARM Castle, Jeff
DATE DRILLED January 11, 1998 **NO.**
ELEVATION 0 **COUNTY NO.** 37937
LOCATION SW SW NW
LATITUDE 41.242122 **LONGITUDE** -88.089101
COUNTY Will **API** 121973793700 **21 - 32N - 10E**

ILLINOIS STATE GEOLOGICAL SURVEY

Private Water Well	Top	Bottom
topsoil black dirt	0	2
gravel	2	16
shale	16	17
limestone	17	200
Total Depth		**200**

Casing: 5" PVC SDR 21 from -1' to 74'

Grout: GROUT from 0 to 70.

Water from limestone at 140' to 200'.
Static level 75' below casing top which is 1' above GL
Pumping level 145' when pumping at 15 gpm for 2 hours

Permanent pump installed at 160' on July 18, 2002, with a capacity of 12 gpm

Additional location info: Lot: Subdivision: Thomas Rivens

Address of well: same as above

Location source: Location from permit

Permit Date: July 16, 2002 **Permit #:**

COMPANY Strange, Robert E.
FARM Kulas, Bob
DATE DRILLED July 17, 2002 **NO.** 1
ELEVATION 0 **COUNTY NO.** 40556
LOCATION SW SE NE
LATITUDE 41.241552 **LONGITUDE** -88.113181
COUNTY Will **API** 121974055600 **19 - 32N - 10E**

ILLINOIS STATE GEOLOGICAL SURVEY

Private Water Well	Top	Bottom
sand	0	3
shale	3	60
limestone	60	105
shale	105	160
limestone	160	530
sandstone	530	600
Total Depth		**600**

Casing: 6" PVC from -1' to 91'
4" PVC from 10' to 212'

Grout: BENTONITE from 5 to 91.

Water from sandstone at 530' to 600'.
Static level 210' below casing top which is 1' above GL
Pumping level 260' when pumping at 15 gpm for 1 hour

Permanent pump installed at 340' on January 12, 2009, with a capacity of 12 gpm

Additional location info: Lot: 2 Subdivision: Martha Hymes

Address of well: 21465 Rt 113
Custer Park, IL

Location source: Location from permit

Permit Date: November 14, 2008 **Permit #:** 197-015

COMPANY Fykes, Charles N.
FARM Murrell, Sam & Heidi
DATE DRILLED December 30, 2008 **NO.**
ELEVATION 595 **COUNTY NO.** 42644
LOCATION SE SW NW
LATITUDE 41.2424 **LONGITUDE** -88.126883
COUNTY Will **API** 121974264400 **19 - 32N - 10E**

ILLINOIS STATE GEOLOGICAL SURVEY

Private Water Well	Top	Bottom
sand fine	0	17
gravel coarse	17	27
shale	27	95
lime hard	95	130
shale hard	130	230
lime hard	230	385
Total Depth		**385**

Casing: 5" STEEL from -1' to 44'

Grout: BENTONITE from 5 to 44.

Water from limestone at 44' to 385'.
Static level 200' below casing top which is 1' above GL
Pumping level 310' when pumping at 20 gpm for 1 hour

Address of well: same as above

Location source: Location from permit

Permit Date: September 16, 2003 **Permit #:**

COMPANY Matherly, Hubert
FARM Kennedy, Dan
DATE DRILLED September 22, 2003 **NO.**
ELEVATION 0 **COUNTY NO.** 39506
LOCATION SW SW NW
LATITUDE 41.256134 **LONGITUDE** -88.108702
COUNTY Will **API** 121973950600 **17 - 32N - 10E**

ILLINOIS STATE GEOLOGICAL SURVEY

Private Water Well	Top	Bottom
sand & gravel	0	25
Total Depth		**25**

Casing: 5" SDR 21 from 0' to 20'

Screen: 10' of 5" diameter 10 slot

Grout: BENSEAL from 0 to 0.

Size hole below casing: 5"

Water from sand at 0' to 25'.
Static level 5' below casing top which is 1' above GL
Pumping level 24' when pumping at 0 gpm for 1 hour

Permanent pump installed at 24' on January 12, 1998, with a capacity of 10 gpm

Additional location info: Lot: Subdivision: Tax #25-21-100-001

Address of well: 19990 Rt. 102
Wilmington, IL

Location source: Location from permit

Permit Date: December 8, 1997 **Permit #:** 197-97-

COMPANY Wills, William D.
FARM Castle, Jeff
DATE DRILLED January 11, 1998 **NO.**
ELEVATION 0 **COUNTY NO.** 37937
LOCATION SW SW NW
LATITUDE 41.242122 **LONGITUDE** -88.089101
COUNTY Will **API** 121973793700 **21 - 32N - 10E**

ILLINOIS STATE GEOLOGICAL SURVEY

Private Water Well	Top	Bottom
sand	0	15
limestone	15	30
limestone & shale off and on	30	200
Total Depth		**200**

Casing: 5" BLACK STEEL from 0' to 43'

Grout: BENTONITE from 0 to 43.

Water from limestone & shale at 30' to 200'.
Static level 40' below casing top which is 0' above GL
Pumping level 185' when pumping at 0 gpm for 2 hours

Permanent pump installed at 185' on August 6, 1996, with a capacity of 8 gpm

Additional location info: Lot: Subdivision: Parcel 2

Address of well: Bauer Rd.
Custer Park, IL

Location source: Location from permit

Permit Date: July 23, 1996 **Permit #:**

COMPANY Fordonski, Keith
FARM Griffin, Tim
DATE DRILLED July 24, 1996 **NO.**
ELEVATION 0 **COUNTY NO.** 37158
LOCATION NE NW NW
LATITUDE 41.218483 **LONGITUDE** -88.066684
COUNTY Will **API** 121973715800 **34 - 32N - 10E**

ILLINOIS STATE GEOLOGICAL SURVEY

Private Water Well	Top	Bottom
brown sand	0	49
gray shale	49	75
limestone	75	111
Total Depth		**111**

Casing: 5" ASTM A53A STEEL from -1' to 75'

Size hole below casing: 5"

Water from limestone at 75' to 111'.
Static level 64' below casing top which is 1' above GL
Pumping level 70' when pumping at 0 gpm for 1 hour

Permanent pump installed at 80' on December 5, 1994, with a capacity of 12 gpm

Address of well: 20345 W. Route #102
Wilmington, IL

Location source: Location from permit

Permit Date: October 20, 1994 **Permit #:**

COMPANY Machak, Joseph M.
FARM Henderson, Jeffrey
DATE DRILLED November 5, 1994 **NO.**
ELEVATION 0 **COUNTY NO.** 36611
LOCATION SW SE
LATITUDE 41.250168 **LONGITUDE** -88.097447
COUNTY Will **API** 121973661100 **17 - 32N - 10E**

ILLINOIS STATE GEOLOGICAL SURVEY

Private Water Well	Top	Bottom
yellow sand	0	19
gray clay w/lime fragments	19	30
soft green Pennsylvanian shale	30	44
Maquoketa shale	44	90
Ft. Atkinson lime, bad S & hydrocarbons	90	160
Maquoketa shale	160	225
Trenton limestone	225	405
Galena	225	
Total Depth		**405**

Casing: 6" PVC SDR 21 200 PSI from 0' to 44'
4" PVC 200 PSI from 20' to 240'

Grout: CTGS/BENTONITE from 0 to 0.

Size hole below casing: 6"

Water from limestone at 240' to 405'.
Static level 200' below casing top which is 1' above GL
Pumping level 0' when pumping at 0 gpm for 12 hours

Permanent pump installed at 320' on January 31, 1993, with a capacity of 12 gpm

Address of well: Irish Lane
Custer Park, IL

Location source: Location from permit

Permit Date: December 14, 1992 **Permit #:**

COMPANY Cole, Raymond Joseph Jr.
FARM Murphy, David
DATE DRILLED January 31, 1993 **NO.**
ELEVATION 610TM **COUNTY NO.** 34830
LOCATION SE NE SE
LATITUDE 41.223955 **LONGITUDE** -88.071545
COUNTY Will **API** 121973483000 **28 - 32N - 10E**

ILLINOIS STATE GEOLOGICAL SURVEY

Private Water Well	Top	Bottom
sand	0	32
shale	32	90
hard shale	90	216
limestone	216	560
Total Depth		**560**

Casing: 5" BLACK STEEL from 0' to 90'

Grout: CUTTINGS from 0 to 90.

Size hole below casing: 5"

Water from limestone at 0' to 0'.
Static level 300' below casing top which is 1' above GL
Pumping level 400' when pumping at 10 gpm for 4 hours

Permanent pump installed at 400' on , with a capacity of 10 gpm

Location source: Field verified

Permit Date: November 1, 1985 **Permit #:** 121267

COMPANY Rob, Ronald Gene
FARM O'Crotty, Bill
DATE DRILLED December 21, 1985 **NO.**
ELEVATION 584GL **COUNTY NO.** 28631
LOCATION 1140'N line, 2560'W line of section
LATITUDE 41.230836 **LONGITUDE** -88.081102
COUNTY Will **API** 121972863100 **28 - 32N - 10E**

ILLINOIS STATE GEOLOGICAL SURVEY

Water Well	Top	Bottom
sand	0	2
gravel	2	35
sand	35	45
gravel	45	48
sand	48	50
gravel	50	53
Total Depth		**53**

Driller's Log filed

Permit Date: **Permit #:**

COMPANY Fykes Charles & Pump
FARM Davis Ellis A
DATE DRILLED August 1, 1975 **NO.** 1
ELEVATION 0 **COUNTY NO.** 27886
LOCATION NE SW SE
LATITUDE 41.265 **LONGITUDE** -88.116746
COUNTY **Will** **API** **121972788600** **7 - 32N - 10E**

ILLINOIS STATE GEOLOGICAL SURVEY

Irrigation Well	Top	Bottom
sand	0	8
broken rock	8	12
blue shale	12	55
sticky clay	55	96
sandy limestone	96	120
Total Depth		**120**

Casing: 5" PVC SDR 21 from -1' to 101'

Grout: GROUT from 0 to 101.

Water from sandy limestone at 101' to 120'.
Static level 25' below casing top which is 1' above GL
Pumping level 40' when pumping at 12 gpm for 2 hours

Permanent pump installed at 80' on April 25, 2008, with a capacity of 12 gpm

Additional location info: Lot: 8 Subdivision:

Address of well: 36110 Hallie Lynn Dr.
Custer Park, IL

Location source: Location from permit

Permit Date: March 17, 2008 **Permit #:** 197-001

COMPANY Area Well & Pump
FARM Ferguson, Paul
DATE DRILLED April 23, 2008 **NO.**
ELEVATION **COUNTY NO.** 42519
LOCATION SE SW SE
LATITUDE 41.219398 **LONGITUDE** -88.114641
COUNTY **Will** **API** **121974251900** **30 - 32N - 10E**

ILLINOIS STATE GEOLOGICAL SURVEY

Private Water Well	Top	Bottom
sand	0	20
green shale	20	37
brown limestone	37	90
gray limestone	90	160
hard gray shale	160	200
Total Depth		**200**

Casing: 5" STEEL from -1' to 40'

Grout: BENTONITE from 5 to 40.

Water from limestone at 40' to 200'.
Static level 60' below casing top which is 1' above GL
Pumping level 100' when pumping at 20 gpm for 1 hour

Permanent pump installed at 140' on September 20, 2001, with a capacity of 12 gpm

Address of well: 37045 Ohlhues Rd.
Custer Park, IL

Location source: Location from permit

Permit Date: July 30, 2001 **Permit #:**

COMPANY Matherly, Hubert
FARM Sanderson, Ed
DATE DRILLED September 5, 2001 **NO.**
ELEVATION 0 **COUNTY NO.** 40304
LOCATION SW SW NW
LATITUDE 41.211983 **LONGITUDE** -88.127488
COUNTY Will **API** 121974030400 **31 - 32N - 10E**

ILLINOIS STATE GEOLOGICAL SURVEY

Private Water Well	Top	Bottom
sand & gravel	0	25
Total Depth		**25**

Casing: 5" SDR 21 from 0' to 20'

Screen: 10' of 5" diameter 10 slot

Grout: BENSEAL from 0 to 0.

Size hole below casing: 5"

Water from sand at 0' to 25'.
Static level 5' below casing top which is 1' above GL
Pumping level 24' when pumping at 0 gpm for 1 hour

Permanent pump installed at 24' on January 12, 1998, with a capacity of 10 gpm

Additional location info: Lot: Subdivision: Tax #25-21-100-001

Address of well: 19990 Rt. 102
Wilmington, IL

Location source: Location from permit

Permit Date: December 8, 1997 **Permit #:** 197-97-

COMPANY Wills, William D.
FARM Castle, Jeff
DATE DRILLED January 11, 1998 **NO.**
ELEVATION 0 **COUNTY NO.** 37937
LOCATION SW SW NW
LATITUDE 41.242122 **LONGITUDE** -88.089101
COUNTY Will **API** 121973793700 **21 - 32N - 10E**

ILLINOIS STATE GEOLOGICAL SURVEY

Private Water Well	Top	Bottom
clay	0	30
limestone	30	50
green shale	50	160
gray shale	160	280
limestone	280	620
St. Peter	620	640
Total Depth		**640**

Casing: 5" PVC 250# SDR 17 from 0' to 285'

Grout: BENTONITE from 0 to 285.

Water from St. Peter at 440' to 620'.
Static level 400' below casing top which is 1' above GL
Pumping level 440' when pumping at 0 gpm for 4 hours

Permanent pump installed at 440' on , with a capacity of 7 gpm

Address of well: 19101 W. Donahue

Location source: Location from permit

Permit Date: October 3, 1995 **Permit #:**

COMPANY Fordonski, Keith
FARM Crockett, Dave
DATE DRILLED November 4, 1995 **NO.**
ELEVATION 0 **COUNTY NO.** 37013
LOCATION NW NE NW
LATITUDE 41.262277 **LONGITUDE** -88.065254
COUNTY Will **API** 121973701300 **15 - 32N - 10E**

ILLINOIS STATE GEOLOGICAL SURVEY

Private Water Well	Top	Bottom
fine sand & gravel	0	22
white limestone	22	36
gray shale	36	115
brown sandstone	115	125
gray shale	125	250
brown limestone	250	505
Total Depth		**505**

Casing: 5" A53 15# from 0' to 40'

Grout: CEMENT from 5 to 40.

Size hole below casing: 5"

Water from limestone at 40' to 505'.
Static level 115' below casing top which is 1' above GL
Pumping level 440' when pumping at 0 gpm for 1 hour

Permanent pump installed at 300' on January 26, 1995, with a capacity of 12 gpm

Additional location info: Lot: #4 Subdivision:

Address of well: 34481 S. Chicago Road

Location source: Location from permit

Permit Date: December 21, 1994 **Permit #:**

COMPANY Fykes, Charles N.
FARM Kacija, Tekine
DATE DRILLED December 27, 1994 **NO.**
ELEVATION 0 **COUNTY NO.** 36610
LOCATION NW SW NW
LATITUDE 41.258632 **LONGITUDE** -88.070027
COUNTY Will **API** 121973661000 **15 - 32N - 10E**

ILLINOIS STATE GEOLOGICAL SURVEY

Private Water Well	Top	Bottom
sand & gravel	0	15
blue clay	15	45
limestone	45	95
shale	95	185
limestone	185	495
Total Depth		**495**

Casing: 5" PVC 250# from 0' to 45'

Grout: CUTTINGS from 0 to 45.

Water from limestone at 185' to 495'.
Static level 260' below casing top which is 1' above GL
Pumping level 300' when pumping at 0 gpm for 4 hours

Permanent pump installed at 300' on December 15, 1993, with a capacity of 12 gpm

Address of well: 19836 W. Hwy #113
Custer, IL

Location source: Location from permit

Permit Date: September 24, 1993 **Permit #:**

COMPANY Fordonski, Keith
FARM Kirchner, Jim
DATE DRILLED November 24, 1993 **NO.**
ELEVATION 0 **COUNTY NO.** 35949
LOCATION SE SE SE
LATITUDE 41.234687 **LONGITUDE** -88.091767
COUNTY **Will** **API** **121973594900** **20 - 32N - 10E**

ILLINOIS STATE GEOLOGICAL SURVEY

Private Water Well	Top	Bottom
drift	0	19
shale	19	92
limestone	92	138
shale	138	230
limestone	230	590
Total Depth		**590**

Casing: 5" BLACK STEEL from 0' to 94'

Grout: CUTTINGS from 0 to 94.

Size hole below casing: 5"

Static level 260' below casing top which is 1' above GL
Pumping level 360' when pumping at 0 gpm for 4 hours

Permanent pump installed at 360' on December 26, 1991, with a capacity of 50 gpm

Address of well: De Selm Rd.
Richie, IL

Location source: Location from permit

Permit Date: December 18, 1991 **Permit #:**

COMPANY Fordonski, Keith
FARM Bradley, Jim
DATE DRILLED December 23, 1991 **NO.**
ELEVATION 0 **COUNTY NO.** 34462
LOCATION NE NE NW
LATITUDE 41.247717 **LONGITUDE** -88.081718
COUNTY Will **API** 121973446200 **21 - 32N - 10E**